**NGG 5720: Core II-Electrical Language of Cells**

Class time: 10:00 to 12:00 pm.

Location: Class 62 auditorium, John Morgan (room reserved 9:30 – 12:15 pm)

Course director: Akiva Cohen <COHENA@chop.edu>

TAs (Bhatti, Jafar [Jafar.Bhatti@Pennmedicine.upenn.edu](mailto:Jafar.Bhatti@Pennmedicine.upenn.edu); Diaz Nieves, Ian A [Ian.DiazNieves@Pennmedicine.upenn.edu](mailto:Ian.DiazNieves@Pennmedicine.upenn.edu); Sherer, Mia [Mia.Sherer@Pennmedicine.upenn.edu](mailto:Mia.Sherer@Pennmedicine.upenn.edu)).

Schedule:

Tue Aug 27, 2024 Course orientation (Cohen)/ Reproducibility (Fuccillo)

Thu Aug 29, 2024 Passive properties of neurons (Alex Proekt)

Tue Sep 3, 2024 Active membrane properties I (Alex Proekt)

Core II Lunch - get to know your instructors 12 pm to 1:30pm (Barchi)

Thu Sep 5, 2024 Active membrane properties II (Alex Proekt)

Tue Sep 10, 2024 Active membrane properties III (Alex Proekt)

Thu Sep 12, 2024 Neurotransmitters and receptors (Nusbaum)

Tue Sep 17, 2024 Synaptic transmission I (Nusbaum)

Thu Sep 19, 2024 Synaptic transmission II (Nusbaum)

Review/Discussion by Nusbaum 12:00 pm to 1:00 pm

Tue Sep 24, 2024 Neuroscience in Practice I (Cohen, Fuccillo, Chanaday, Goldberg)

Thu Sep 26, 2024 Neuroscience in Practice II (Cohen, Fuccillo, Chanaday, Goldberg)

**Exam I questions released at 12 pm**

Tue Oct 1, 2024 No class

Thu Oct 3, 2024 Presynaptic mechanisms I (Chanaday)

**Assignment Exam I answers due 5 pm**

Tue Oct 8, 2024 No class (SfN Oct 5-9)

Thu Oct 10, 2024 Presynaptic mechanisms II (Chanaday)

Tue Oct 15, 2024 Presynaptic mechanisms III (Chanaday)

Thu Oct 17, 2024 CNS synapses I (Eric Marsh)

Tue Oct 22, 2024 CNS synapses II (Don Joseph)

Thu Oct 24, 2024 CNS synapses III (Don Joseph)

Tue Oct 29, 2024 Optogenetics (Goldberg)/imaging

**Exam II questions released 12 pm**

Thu Oct 31, 2024 Synaptic plasticity I (Fuccillo)

Tue Nov 5, 2024 Synaptic plasticity II (Fuccillo)

**Assignment Exam II answers due 5 pm**

Thu Nov 7, 2024 Synaptic plasticity III (Fuccillo)

Tue Nov 12, 2024 Sensory transduction I (Ma)

Thu Nov 14, 2024 Sensory transduction II (Ma)

Tue Nov 19, 2024 Sensory transduction III (Ma)

Thu Nov 21, 2024 Neuronal circuit I (Nusbaum)

Tue Nov 26, 2024 Neuronal circuit II (Nusbaum)

Thu Nov 28, 2024 NO CLASS meeting (Thanksgiving)

Tue Dec 3, 2024 Neuronal circuit III (Nusbaum)

Thu Dec 5, 2024 Neuronal circuit IV (Nusbaum)

Review/Discussion by Nusbaum 12:00 pm to 1:00 pm

Tue Dec 10, 2024 **Exam III questions released**

Thu Dec 17, 2024 **Assignment Exam III answers due by 5pm**