UBC NEUROSCIENCE

UBC NEUROSCIENCE NEWSLETTER

EDITION 3 (DEC 6 - DEC 13)



ABOUT THIS WEEK:

New opportunities, new events, and new class summaries: a new **ne(w)roscience** newsletter edition! We spent a lot of time compiling amazing opportunities (for undergraduates like yourself), so please take some time to read through it. Have a great week.

ABOUT MORE:

Last week, Angie took us through the neuroscience of vision. Below, I've recapped the topics we covered and also provided links to labs at UBC that are exploring these research methods. Some of these labs are even looking to hire undergraduate students, so take some time to review the labs I've listed. I've also provided flashcards to help you study for our NSCI final!

NEWS LETTER TOPICS



RECAP ON LECTURE

Photoreceptors, eye structures



UNDERGRADUATE LAB HIRING

We have provided links to UBC labs exploring the research methods we discussed in class. Some of these labs are even looking to hire undergraduate students.



STUDY MATERIAL + MORE

This week, we've provided some flashcards to help with studying!

PHOTORECEPTORS

Angie started her dissection of photoreceptors (a sensory receptor cell) by discussing retinal and opsin. She discussed how the conformational change of the metabotropic protein eventually led to the conversion of cGMP to GMP, which eventually inhibited glutamate release. The Moritz Lab, linked below, studies the cellular processes behind visual disorders, primarily retinitis pigmentosa.

<u>MORITZ LAB - PI: Orson L. Moritz</u> (INTERESTED IN HIRING UNDERGRADUATES IN SUMMER) Vision; blindness; vision biology; vision biochemistry; vision genetics; retinitis pigmentosa; macular degeneration; photoreceptors; genetic disorders; ophthalmology.

http://moritzlab.ophthalmology.ubc.ca/index.htm

EYE STRUCTURES

Angie then briefly covered eye structure. We learned about the ciliary muscles that control lens contraction, and also about the iris, which controls the expansion of the pupil to regulate how much light enters the eye. Although we didn't cover it too much, I added this summary because there is a UBC researcher, Miriam Spering, who studies eye movement and is interested in hiring undergraduates. I linked her profile below.

MIRIAM SPERING (INTERESTED IN HIRING UNDERGRADUATES)

Biological sciences; vision; movement; perception and action; eye movements; hand movements; eye-hand coordination; sport vision; Parkinson's disease

<u>ww.centreforbrainhealth.ca/faculty/miriam-spering/</u>



Flashcards:

We've created flashcards to help you to study for our NSCI final. The units that they cover are vision and development. Check them out below!

VISION:

<u>QUIZLET</u>

DEVELOPMENT:

<u>QUIZLET</u>

NEUROSCIENCE PROGRAM RESOURCES

OFFICE HOURS: STEVEN AND RYAN

You can sign up for appointment times with either Steven or Ryan via the Neuroscience Student Guide canvas calendar. Email them if you'd rather meet inperson. You can sign up for appointment times with either Steven or Ryan via the Neuroscience Student Guide canvas calendar. Additional appointment times are always being added, so if you don't see any open slots, check back again later and more will be available. If you've enabled notifications for the Neuroscience Student Guide, you'll be sent a message when additional Office Hours have been added.

WELLNESS RESOURCES:

UBC Psychology has an excellent list of diverse wellness resources. We've linked them below.

<u>WELLNESS</u> <u>RESOURCES</u>

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QUESTIONS/CONCERNS/INQUIRIES:

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