

2017 Seminar sessions

NEUR3045/G045/M045 students

There will be four seminar sessions.

SESSION 1 Tuesday 28th February, 15:00-18:00 (12 presentations)

IOE Bedford Way (20) - 802

Retina seminar topics

1. How are the center-surround receptive fields of the retina formed and what are their significance? **Lucy Ping**
2. What do retinal amacrine cells do? **Shannon Okyemba-Tsambou**
3. Why are there different classes of ganglion cell in the retina? **Theo Cooper**
4. How are distinct ON and OFF responses generated in the retina? **Shwe Ei**
5. What are the functions of the excitatory amino acid transmitters in the retina? **Priyal Taribagil**
6. What are the functions of the inhibitory amino acid transmitters in the retina? **Salaam Botros**
7. How is the electroretinogram generated and recorded? **Jodie Clarke**
8. How does the function of the Inner Plexiform Layer and Ganglion Cell layer circuitry change with changes in light level? **Caterina Hall**
9. What is the function of Dopamine in the retina? **Rebecca White**
10. What do retinal horizontal cells do? **Yasmin Abedin**
11. Discuss the function of convergence and divergence within the retinal circuitry. **Ethan Khambay**

SESSION 2 Tuesday 7th March, 15:00-18:00 (13 presentations)

Medawar Building G01 Lankester LT

Pathways and cortical processing seminar topics

12. How do signals from Rod photoreceptors reach retinal ganglion cells to drive ON and OFF responses? **Chloe Stevenson**

1. Does activity in the 'dorsal' visual pathway reach visual awareness? **George Thomas**

2. What can a tecto-thalamo-cortical pathway contribute to vision? (Discuss one example).

Emmett Thompson

3. Visual stability--the eyes move yet the world does not. Why not? **Ellie Gomm**

4. What changes in the brain during multistable percepts? **Ivan Ezquerra Romano**

5. Where in the visual pathway does the motion aftereffect arise? **Akbar Ballard**

6. Does the brain get its wires crossed in visual synaesthesia (e.g., seeing sounds in colour)?

Henry Hill

7. What is "blindsight"? **Otso Pelkonen**

8. Where does the brain learn to read? **Chao Zang**

9. What might be the nature of visual brain dysfunction in dyslexia? **Jack Brears**

10. What is the difference between consciousness and attention? **Dominic Blauth-**

Muszkowski

SESSION 3 Tuesday 14th March, 15:00-18:00 (12 presentations)

Medical Sciences G46 H O Schild Pharmacology LT

Visual function seminar topics

1. Compare and contrast the properties of rod and cone vision. Why do we need two systems?

Alina Lakhani

2. How do we see colour, and what are the limitations of our colour vision? **Tracy Wong**

3. Describe the more common types of colour "blindness" and their causes. **Eve Corrie**

4. Show examples of visual illusions. For some of them, provide an explanation of what the illusion tells us about the visual system. **Emily Snook**

5. What do the *psychophysical* changes that occur with light adaptation tell us about how the visual system light adapts? **Vashist Motkur**

6. What monocular and binocular cues allow us to see depth? **Kamilla Dombai**

7. Describe the mechanisms of light adaptation. **Viren Pandya**

8. Show illusions of colour and explain what they tell us about colour vision. **Andrew Zhao**

9. How do we see depth in a random-dot stereograms? **Laura McLaughlin/Croucher**

10. How do we encode the direction and speed of motion? **Kyung Taek Kim**

11. Why stimuli detected by the luminance and chromatic pathways look so different? **Henry Drake**

12. Contrast sensitivity and masking. **Hisham Hamze**

SESSION 4 Tuesday 21st March, 15:00-18:00 (5 presentations)

School of Pharmacy 228

Mixed seminar topics

1. What does binocular rivalry reveal about visual processing? **Daniel Radford**
2. What does the Moon Illusion tell us about size perception? **Meriam Islam**
3. How do ipRGCs contribute to non-image forming vision? **Sabrina Wardani**
4. How do ipRGCs contribute to image-forming vision? **Byongsung Shim**
5. The ‘binding problem’: dead or alive ? **Qasim Mian**
6. How viable is the ‘neural fatigue’ theory for visual aftereffects? **Dom Atraszkiewicz**
7. In what way does human perception exhibit the ‘gambler’s fallacy’? **Florin Gheorhiu**