

Full Time MSc Neuroscience Programme 2011 – 2012

Titles for Essay A1

Submission Deadline midday on 24th October 2011

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| 1 | Describe the projection systems serving functional localisation in the cerebral cortex. | Lawrie Bannister |
| 2 | Cajal vs. Golgi: Who made the bigger contribution to modern neuroscience? | Jon Cooper |
| 3 | What is the relevance of the neuron doctrine to 21st century neuroscience? | Jon Cooper |
| 4 | Describe the development of oligodendrocyte precursors into myelinating cells. | Arthur Butt |
| 5 | Compare and contrast how the permeability transition pore and Bcl-2 family members activate caspases and how these pathways could be targeted in neurodegeneration. | Abdul Hye |
| 6 | Discuss the roles of the cytoskeleton with respect to development and disorders of the central nervous system | Angela Bithell |
| 7 | Describe the properties of ion channels, discussing the mechanisms by which they gate voltage, specific ions and ligands as well as their selectivity properties. | Andrew Wong |
| 8 | Discuss how cloning and sequencing of receptor genes has contributed to our understanding of their function | Andrew Makoff |
| 9 | What is the role of transporters on glia in glutamatergic neurotransmission? How does this change during local ischaemia? | Martyn Boutelle |
| 10 | How do cells communicate with one another other than by neurotransmission and how may this differ in disease? | Richard Killick |