

Full Time MSc Neuroscience Programme 2009 – 2010
Titles for Essay A2
Submission Deadline 18:00 on 18th December 2009

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| 1 | For one common psychiatric or neurological disorder, review the evidence that there is a genetic contribution to this disease. | John Powell |
| 2 | Describe the development and activity of a named local organizer in the vertebrate CNS and show how experimental approaches have helped to reveal its patterning function. | Andrew Lumsden |
| 3 | Discuss the roles of different stem/progenitor cell types in cortical neurogenesis. | Brenda Williams |
| 4 | Much of what we know about synaptogenesis in vertebrates comes from the neuromuscular junction. Have these insights helped us understand synapse formation between neurons in the brain? | Juan Burrone |
| 5 | Are abnormalities during brain development reversible in adults? | Sandrine Thuret |
| 6 | Discuss two different types of molecular manipulations that could be used to investigate aspects of hippocampal function. | Peter Giese |
| 7 | How do Elman and Hopfield recurrent neural network models represent time? | Mike Coleman |
| 8 | Evaluate the contribution of neural network research to an aspect of Neuroscience that interests you. | Mike Coleman |
| 9 | TH1 cells and macrophages are the major leukocyte cell types seen in inflammatory reactions in the CNS: Discuss whether this statement is correct, and the mechanisms that control the migration of leukocyte populations into the CNS. | David Male |
| 10 | Discuss the role(s) of microglia in the pathogenesis of Alzheimer's disease. Is microglial activation beneficial or detrimental in the aged brain? | Payam Rezaie |