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MEDICAL
BIOLOGY
INTERACTIVE

Brain Day

A One-Day Introductory Tutorial In Neuroscience

Roedean School

Tuesday 6th February 2018

Tutor:

Dr Guy Sutton

Director, Medical Biology Interactive,

Honorary (Consultant) Assistant Professor, University of Nottingham Medical School

PROVISIONAL PROGRAMME

- 9.00-9.10 Introduction & Aims
- 9.10-10.10 **From Neuron To Brain**
Structure of the nervous system. Basic brain anatomy. Neurons, synapses, drugs and brain function. Methods for exploring the brain. Brain stimulation and out-of-body experience. Functional brain imaging and consciousness in coma.
- 10.10-10.50 **BrainWeb 1**
Interactive computer-based session. Drugs and the brain. Epigenetics: nature and nurture.
- Morning Break
- 11.10-12.30 **The Dissected Brain**
Brain anatomy across species: from fly to dog to dolphin. More brain anatomy: cerebrum, cerebellum, hippocampus, corpus callosum, medulla oblongata and hypothalamus. Neuroplasticity and the case of hemispherectomy. Accompanied by sheep brain dissection. Brain cells under the microscope.
- Lunch
- 1.30-2.15 **The Working & The Damaged Brain**
Lobes of the brain. The frontal lobe and brain damage. Is there a criminal brain? The power of thought: neurobionics.
- 2.15-2.40 **BrainWeb 2**
Visual Illusions. The DSM and mental illnesses.
- 2.40-3.35 **The Shattered Mind**
The history of mental illness. DSM-5 and assessment of mental disorders. Focus on schizophrenia: symptoms, neuropathology, genetics and treatment.
- 3.35-3.45 Conclusions & Questions