



About the Tutor

Guy Sutton's primary research interests are the genetics of neural development and the interactive nature of biological, behavioural and genetic factors in disease processes; in particular, how the brain can affect immunity increasing susceptibility to illness.

He is an Honorary Special Lecturer in Neuroscience at University of Nottingham Medical School and has held previous academic appointments at Manchester, Manchester Metropolitan and Cambridge Universities. Guy has lectured in neuroscience and genetics to a range of undergraduate and postgraduate students, including medics, biologists and psychologists. He has been a visiting researcher to universities in the United States and has conducted research projects and data analysis for various organisations, including the Department of Health and the Medical Research Council. In addition to presenting research at various international conferences and writing for academic publications, Guy has talked about the theoretical and clinical aspects of his research on television and radio.

He has tutored on 'A' level reading parties for students and teachers for several years. He is an associate tutor with Villiers Park Educational Trust, Cambridge and runs courses for the National Academy For Gifted & Talented Youth.

About MBI

MBI (Medical Biology Interactive) delivers one-day and half-day courses, seminars and tutorials in epidemiology, occupational health and the human sciences to the health service, industry and education. All MBI seminars are written and run by academics and health specialists, each of whom has considerable experience in research and its practical applications. Seminars are delivered at the hospital, workplace or school, based on cutting-edge research and current practice benchmarks, and tailored to the needs and concerns of the client.

Some of the courses and tutorials that MBI currently offers are listed in this pamphlet.

For further information and full programmes, please contact Dr. Guy Sutton; tel. 07941 039670, e-mail: gmsutton@mbi-consultancy.co.uk.

'Brain Day' Review ATP Newsletter

" It was amazing that the day passed so quickly and it was lovely to see our students so enthusiastic, asking stimulating questions and receiving such interesting answers. Like many teachers, I have sometimes come away from conferences feeling rather disappointed in the speakers, however Brain Day was really excellent."

Margaret Highet
Tadcaster Grammar School



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**Seminars & Tutorials For The
Health Service, Industry & Education**

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P R E S E N T S

BRAIN DAY



*A One-Day Tutorial
For AS/A2 Level Students
On The Brain & How It Works -
Delivered At Your School*

TUTOR:

Dr Guy Sutton

Director, MBI &
Honorary Special Lecturer,
University of Nottingham Medical School

WHY A BRAIN DAY?

Over the past twenty years there have been astounding advances in our understanding of the workings of the human brain and nervous system. The multidisciplinary research attempts to understand brain function are collectively referred to as *neuroscience*. Along with genetics, neuroscience is currently one of the most exciting and rapidly developing areas of academic and clinical study.

Neuroscience is an important component of many degree courses, and is an area with which many students experience problems, possibly because of the complex anatomical pathways and terminology that pervade the literature.

This tutorial is designed to present challenging theories and issues in neuroscience employing a variety of stimulating formats.

WHICH STUDENTS WILL BENEFIT?

This tutorial is designed primarily for able post-16 biology and psychology students, but will also be useful to:

- any AS/A2 students with an interest in how the brain works
- any students considering a university degree and/or career in the following subjects:

Medicine
Biology
Dentistry
Pharmacy

Psychology
Biochemistry
Neuroscience
Philosophy

The material presented during this tutorial is intended to complement and develop upon topics and issues encountered at AS and A2 level.

AIMS OF THE TUTORIAL

There are three main aims to this tutorial:

- to provide the student with an overview of how the mammalian brain works, illustrating some elementary principles of neuroanatomy and brain function.
- to examine what happens when the brain becomes damaged, disorganised and degenerates, with accompanying clinical examples.
- To explore contemporary issues in academic neuroscience and physiological psychology, for example, behavioural genetics, individual differences and brain imaging.

EXEMPLAR PROGRAMME

A variety of topics and issues relating to neuroscience will be covered. Topics can be tailored to the requirements of the syllabus studied and the teacher:

- **9.00-9.10: Introduction & Aims**
- **9.10-10.00: From Neuron to Brain**

Methods of assessing brain function: focus on brain imaging. Genes & brain function. Stress and the brain.

10.00-10.25: Drugs & The Brain

How nerve cells communicate. The effects of alcohol, cocaine, ecstasy and Prozac on nerve cells and behaviour.

- **10.25-10.55: BrainWeb I**

Senses challenge. Brain sex. Brain stimulation.

- **11.10-11.50: The Working Brain**

Brain lobes and subcortical structures. Emotions and the brain. Memory in the brain. Left brain, right brain – myths and truths. Language and the brain. Split brains.

- **11.50-12.30: Sheep Brain Dissection***

Comparative neuroanatomy. The sheep brain and its major structures.

- **1.30-2.15: Biological Rhythms & Sleep**

Rhythms of the brain and body. Why do we sleep? Why do we dream? The evolutionary biology and psychology of sleep. Influences on sleep. Sleep disorders.

- **2.15-2.40: BrainWeb II**

Visual illusions. Brain implants and mental function.

- **2.40-3.30: Focus on Schizophrenia**

An introduction to mental illness and its diagnosis; The symptomatology of schizophrenia with video case study; 21st century explanations of the disease and prospects for future treatments.

- **3.30-3.40: Quiz & Conclusions**

* Dissection is performed solely by the tutor.

FORMAT

The tutorial is delivered in your school and runs throughout the school day. Tutorial date can be arranged by contacting MBI. Format is varied, with interactive, multimedia lectures and group discussions.

Each school receives an interactive CD-ROM featuring tutorial material, activities and web links. Students each receive a comprehensive tutorial pack relating to and complementing material presented during the tutorial.

PRAISE FOR BRAIN DAY

"A brilliant day, tailored to our specifications and requirements."

Mrs. K. Walton,
Wirral Grammar School For Girls, Bebington.

"Fantastic - brings it alive. Great tutorial pack, fantastic resources."

Mr. Peters,
Horsforth School, Leeds.

"A very high standard of presentation. Even the most reluctant students were engaged and fascinated."

Mrs. V. Sweeting,
Enfield County High School, London.

"Pupils highly enjoyed the optical illusions and interactive quizzes. A brilliant day."

Ms. P. Glaze,
Oldbury Wells School, Bridgnorth.

"Very well organised and pitched at the right level - both those with some previous knowledge and those without benefited enormously... Students were buzzing at the end of the day."

Mrs. P. Nissebaum,
The Long Eaton School, Nottingham.

"A fantastic presentation."

Ms. J. Marriott,
Dronfield Henry Fanshawe School, Derbyshire.

"An excellent tutorial, delivered with real enthusiasm and verve. The students went away inspired and are still talking about it!"

Mr. P. Lucas,
Queen Elizabeth School, Kirkby Lonsdale.

"A thoroughly stimulating day for both students and staff, exceeding all our expectations."

Mr. K. Smith,
St Albans Girls' School, Hertfordshire.

"Great variety of content... Students enjoyed the tutorial enormously and loved the sheep brain dissection. The day had been presented as an "Enrichment" opportunity and it certainly was."

Mrs. J. Hardy,
St Aidan's & St John Fisher Associated Sixth Form, Harrogate.

"Spot on! The day took the students' knowledge to another level... it has also greatly improved my knowledge and understanding of the brain."

Mr. A. Harper,
Oldershaw School, Wirral.