



### 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.

He is Honorary (Consultant) Assistant Professor in the Division of Psychiatry at University of Nottingham School of Medicine 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 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, most recently in the film 'Beyond The Genome' for Reelhouse Productions (2016). He sat on the advisory board for the Wellcome Trust's 2013 'Inside The Brain' publication. Recent articles include 'Methods For Exploring The Brain' and 'The Epigenetic Brain' in *Psychology Review* and 'Crime and The Brain' in *Catalyst*.

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 has written and delivered courses for Young, Gifted & Talented.

### 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.

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

*"This was the best whole day tutorial in Psychology that I have experienced in 20 years of teaching."*

Mrs N. Williams  
Worth School



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

Director Dr. Guy Sutton  
7 Gloucester Road  
Wallasey  
Wirral  
CH45 3JS

Tel. 07941 039670  
E-mail: [gmsutton@mbi-consultancy.co.uk](mailto:gmsutton@mbi-consultancy.co.uk)  
Web site: [www.medicalbiology.co.uk](http://www.medicalbiology.co.uk)



**MBI**  
MEDICAL  
BIOLOGY  
INTERACTIVE

PRESENTS

# 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 (Consultant) Assistant Professor,  
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 is collectively referred to as *neuroscience*. Together 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 clearly present this complex material, addressing 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 psychology and biology students. It can be tailored specifically to either subject, 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	Psychology
Biology	Biochemistry
Dentistry	Neuroscience
Pharmacy	Law

The material presented during this tutorial will complement and develop upon topics and issues encountered in A-level Psychology and Biology syllabi.

## 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, for example, consciousness, behavioural genetics and brain imaging.

## SPECIMEN 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

*Genes and brain development. Methods of assessing brain function: focus on brain imaging. Neurons, nerve impulses and synapses.*

### 10.00-10.20: Drugs & The Brain

*The effects of alcohol, cannabis, cocaine, ecstasy and neuroleptics on nerve cells and brain function.*

### 10.20-10.50: BrainWeb I

*Computer-based session: How neurons work. Drugs and the brain. Genes, epigenetics and the brain.*

### 11.05-11.25: Genes & Brain Development

*What do genes do in the brain? Genes in brain development and function. Genes and neuropsychiatric dysfunction.*

### 11.25-12.40: Sheep Brain Dissection\*

*Comparative neuroanatomy. The sheep brain and its major structures.*

### 1.30-2.15: The Working & The Damaged Brain

*Brain lobes and subcortical structures. Effects of frontal lobe brain damage. Lateralisation and localisation of function. Memory and the brain. Neurobionics and mending the brain.*

### 2.15-2.40: BrainWeb II

*Visual illusions. The DSM online.*

### 2.40-3.50: 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.*

### 3.50-4.00: 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 Brain Day software featuring tutorial material, activities and web links. Students also receive a comprehensive pdf tutorial pack relating to and complementing material presented during the tutorial.

## Praise for Brain Day

*"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 truly excellent."*

Margaret Highet,  
Tadcaster Grammar School

*"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.

*"Students have been telling their other teachers how fantastic they thought the day was. The feedback was outstanding and many students have said that this was the most worthwhile and informative training session they have ever had."*

Dr. D. Cullen,  
Longsands Academy, Cambridge.

*"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.

*"The students are still buzzing (to use their terminology) and the AS students are already asking if we will do it again next year - to which the answer is a resounding 'yes!'"*

Mrs. K. Higgins,  
Wyke College, Hull.

*"Superb, stimulating and challenging for even the most able students. I found many of the topics inspiring and really cutting edge. I would not hesitate to recommend this to other schools."*

Ms. C. Nicholls,  
The Lady Eleanor Holles School, Hampton.

*"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."*

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

*"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,  
Ashville College, Harrogate.