



About the Tutor

Guy Sutton's primary research interests are the genetics of brain development and function, together with the mechanisms that underlie neurodegenerative diseases and brain damage.

Dr Sutton is Director of MBI and runs seminars in neuropathology and forensics with a variety of legal professionals, including serious crime police officers and barristers. He has lectured to judges on forensic neuropathology and neurology, considering whether there is evidence for a criminal brain. Guy is Honorary (Consultant) Assistant Professor at University of Nottingham School of Medicine and has held previous academic appointments at Manchester, Manchester Metropolitan and Cambridge Universities. He has lectured in neuroscience and genetics to a range of undergraduate and postgraduate students, including medics, biologists and psychologists. Guy 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, he has talked about the theoretical and clinical aspects of his research on television and radio. Recent articles include 'Crime and The Brain' in *Catalyst*.

Guy 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 Young, Gifted and Talented, previously, 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.

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

FORENSICS DAY

"Our students always really enjoy the Forensics day. Dr Sutton manages to approach some tricky subjects with sensitivity and yet always enthuses and fascinates the students in equal measure. His enthusiasm for the subjects shines through from start to finish!"

Mr Peter Anderson
Ampleforth College, York

"Dr Sutton's excellent insight into the world of DNA and Forensics was thought-provoking and involved giving students an overview of post-mortems and forensic pathology, crime scene analysis and DNA profiling. The tutorial reinforced the feelings of students who wish to pursue a career in forensics."

Mrs Shahida Khanam
Priestley College, Cheshire



PRESENTS

FORENSIC

SCIENCE



*A Half-Day Tutorial
For AS/A2 Level Students
On Forensic Issues,
Techniques & Methods -
Delivered At Your School*

TUTOR:

Dr Guy Sutton

Director, MBI &

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



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

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WHY A FORENSICS MORNING?

Forensic science (also referred to as forensics) involves the application of a wide spectrum of sciences in order to answer questions posed by the legal system. In criminal cases forensic scientists are often involved in the search for and examination of physical samples, which might be useful for establishing or excluding an association between someone suspected of committing a crime and the scene of the crime or victim. In recent years, the contribution of forensic science to the criminal justice system has been increasingly important.

This exciting tutorial is intended to provide students with a broad introduction to issues and techniques in forensics. Students will consider procedures such as post-mortem and blood pattern analysis, factors affecting rates of decomposition and determining the time of death, through to important technologies such as mitochondrial DNA (mtDNA) profiling, a method which has a discriminating power of one in 50 million. This technique was integral to establishing the British DNA Database, the largest of its kind in the world, which presently contains 4.5 million samples taken during criminal enquiries. In this fascinating tutorial, students will also address some of the many subdivisions of forensic science, including digital forensics, forensic DNA analysis, forensic entomology, forensic pathology, forensic psychology, forensic archaeology and forensic toxicology.

WHICH STUDENTS WILL BENEFIT?

This tutorial is designed primarily for able A-level biology and chemistry students, but will also be useful to:

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

Forensic Science Medicine
Biology Psychology
Law Neuroscience

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 two main aims to this tutorial:

- to provide the student with an introduction to issues, debates and principles in forensic science.
- to consider some of the methods and techniques used by forensic scientists, from fingerprinting to post-mortem examination to advanced DNA profiling, focusing on the work of the Forensic Science Service.

EXEMPLAR PROGRAMME

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

- 9.00-9.10: Introduction & Aims**
- 9.10-10.10: An Introduction To Forensics**
The nature, scope and practice of forensic science. Scientific evaluation of forensic evidence. Forensic science of work: Lockerbie and 9/11. Other cases: from Locard to Pistorius. Behaviour at the scene of crime and other things you should know.
- 10.15-11.00: Forensic Web**
Computer-based practical session. Virtual lab: PCR and electrophoresis. Blood spatter analysis. Virtual autopsy: examining an animated body.
- 11.20-12.10: Focus on Forensic Pathology**
Changes in the human body shortly after death: livor mortis and rigor mortis. Circumstances and location of death. Rates of post-mortem decomposition and ambient conditions. Forensic entomology. Bone characteristics and determination of gender and age.
- 12.15-12.55: Focus on Forensic Neurology & Forensic Psychiatry**

Forensic neuropathology: determining the sequence of events in serious head injury. A-Z of brain injury: know your haematomas from your hematomas. Brain damage, chemical intoxication, brain tumours and crime. Mental illness and crime. Psychopaths, psychotics and other mental health conditions seen in courts. What makes a serial killer?

- 12.55-13.00: Conclusions**

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, case studies, group discussions and computer-based practical sessions. Questions are encouraged from students throughout the tutorial.

Each school receives a comprehensive pdf tutorial pack relating to and complementing material presented during the tutorial.

TESTIMONIALS

BRAIN DAY FOR POLICE OFFICERS SEMINAR

"The seminar was very well received. Officers enjoyed it on both a professional and a personal level. The explanation of terminology was extremely useful and officers made note of how well the content was delivered and how passionately it was presented."

Mr Richard Alexander
Leicestershire Constabulary.

FORENSIC SCIENCE

"A varied, enthusiastic presentation, which was very useful. As ever, a really interesting day for the students."

Mr. P. Anderson,
Ampleforth College.

BRAIN DAY

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

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

DNA DAY

"An excellent tutorial.

Our girls thoroughly enjoyed and appreciated the experience."

Mrs Vandervord
Colchester County High School for Girls

PSYCHOPATHOLOGY

"The entire session was delivered with a passion and enthusiasm that both inspired and motivated students. Standouts include the history of mental illness and recent advances in neuropsychiatry and the neurobiology of mental illness."

Mrs. C. Bury,
Ashton Sixth Form College.

HUMAN HEALTH & DISEASE

"Simply an excellent day, very interesting and delivered in an enthusiastic and engaging way. Our students thoroughly enjoyed the tutorial."

Mr Dan Swanwick
Hautlieu School, Jersey