



## FREE PUBLIC LECTURE SERIES 2009 – 2010

The Tayside & Fife Branch of the British Science Association are most grateful to the University of Dundee and the University of Abertay Dundee for their contributions towards this lecture series.

---

**Wednesday 21 October 2009**

**TICK, TICK, PULSATING STAR - HOW WE WONDER WHAT YOU ARE!  
A LECTURE CELEBRATING THE INTERNATIONAL YEAR OF ASTRONOMY,  
AND SPONSORED BY THE INSTITUTE OF PHYSICS IN SCOTLAND  
by Professor Jocelyn Bell Burnell, Astrophysics Department, University of Oxford.**

Pulsars, or pulsating radio stars, are amongst the most amazing objects in the Universe. This accessible talk will introduce them and describe some of the mysteries still surrounding them.

**Tuesday 17 November 2009**

**DARWIN AND THE ROOTS OF THE TREE OF LIFE  
by Professor Malcolm F. White, Centre for Biomolecular Sciences, University of St. Andrews.**

The vast diversity of life is unified by the molecules that store information: DNA and RNA, suggesting the existence of a last universal cellular ancestor (LUCA) at the root of the tree of life, some 3 billion years ago. This lecture will explore these fundamental issues in evolutionary biology and celebrate the 200th Anniversary of Charles Darwin's birth.

**Wednesday 20 January 2010**

**NETWORKING TO BEAT DIABETES**

**by Dr John R. Petrie, Reader in Diabetic Medicine and Director of the Scottish Diabetes Research Network, Ninewells Hospital and Medical School, Dundee.**

Ninety years after the discovery of insulin, diabetes remains far from cured, despite research breakthroughs reported almost weekly. Why has the number of people affected by this serious disease doubled in Tayside in less than a decade? How are disease registers and genetic analysis helping to reduce health complications? Can stem cells deliver on their promises? What is the role of research networks?

**Tuesday 9 February 2010**

**PLAYING GAMES IS A SERIOUS BUSINESS**

**by Professor Lachlan MacKinnon, School of Computing and Creative Technologies, University of Abertay Dundee.**

This lecture will be held in the Kydd Building, University of Abertay Dundee

Worldwide, the computer games industry was worth US\$39 billion in 2008, in the UK it was worth £4.03 billion, growing at 10% per year! Serious games, where games technology and expertise is used for industrial simulation and visualisation, is predicted to at least double that - like Mickey Mouse, this is serious business!

**Thursday 25 February 2010**

**ULTRASOUND SCIENCE**

**by Professor David H. Bremner, School of Contemporary Sciences, University of Abertay Dundee.**

The frequency of human speech is around 200 Hz; humans can hear noises up to about 15 kHz and above 18 kHz is the ultrasonic region. Ultrasound has an amazing variety of uses including: submarine detection, plastic welding, foetal scanning, thickness measurement, accelerating chemical reactions, bio-diesel synthesis and much more.

**Wednesday 17 March 2010**

**THE SCIENCE OF MAGIC**

**by Dr. Gustav Kuhn, Department of Psychology, University of Durham.**

For centuries, magicians have baffled us with their tricks and illusions. In this talk the speaker will explain the similarities between magic and science and demonstrate how the magician's experience in deception can be used to further our understanding of Psychology and Neuroscience.

---

**THE ABOVE LECTURES ARE FREE AND OPEN TO ALL MEMBERS OF THE PUBLIC  
Lectures start at 7.00 pm and will be held in the D'ARCY THOMPSON (TOWER) LECTURE THEATRE,  
University of Dundee,  
EXCEPT THE LECTURE ON 9 FEBRUARY, which will be held in the KYDD BUILDING,  
University of Abertay Dundee.**

**Further information on Tayside & Fife Branch of the British Science Association website: [www.the-ba.dundee.ac.uk](http://www.the-ba.dundee.ac.uk)**