



**Norah Boyce Science lectures archives  
(in academic year order – most recent first)**

**2023 - 2024**

**AUTUMN TERM 2023**

**24 October**

**The treeline: the last forest and the future of life on Earth**

Ben Rawlence, Award winning writer and Director of the Black Mountains College, Wales

**7 November**

**The World in 2050 and beyond**

Professor Martin Rees, Lord Rees of Ludlow OM FRS, Patron of U3AC, Astronomer Royal, Past President of the Royal Society

**21 November**

**Life after death: how behaviour influences evolution in the burying beetle**

Professor Rebecca Kilner FRS, Head of Department of Zoology & Director of the Cambridge University Museum of Zoology

**SPRING TERM 2024**

**16 January**

**Population based research into dementia and brain ageing**

Professor Carol Brayne CBE FMedSci, Department of Psychiatry, University of Cambridge and Director of Cambridge Public Health

**23 January**

**Current tree pests and diseases found in the UK**

Keith Sacre, Sales Director, Barcham Trees, Ely

**6 February**

**Behaviour of swimming micro-organisms**

Professor Tim Pedley FRS Department of Applied Mathematics and Theoretical Physics, University of Cambridge

**5 March**

**Living with earthquakes: know your faults**

Professor James Jackson CBE FRS. Department of Earth Sciences, University of Cambridge

**2022 - 2023**

**AUTUMN TERM 2022**

**18 October**

**How the new science of ageing may help us to age well**

Professor Lynne Cox, Department of Biochemistry, University of Oxford

**29 November**

**Reading your DNA: What does it tell us?**

Professor Sir Shankar Balasubramanian FRS, Department of Chemistry, University of Cambridge

**6 December**

**Physics of the everyday**

Professor Dame Athene Donald FRS, Emeritus Professor of Experimental Physics and Master of Churchill College, University of Cambridge

## SPRING TERM 2023

**24 January**

### **The Exoplanet revolution**

Professor Didier Queloz FRS, Nobel laureate 2019, Centre for Experimental Astrophysics, Dept of Physics, University of Cambridge

**7 February**

### **Manufacturing a better world**

Professor Tim Minshall, Head of the Institute for Manufacturing, University of Cambridge

**28 February**

### **Using Mathematics to understand pandemic strategies**

Professor Julia Gog OBE, Professor of Mathematical Biology, DAMPT, University of Cambridge

**21 March**

### **Seeing is believing: A hundred years of visualising molecules**

Sir Venki Ramakrishnan OM FRS, Nobel laureate 2009, MRC Laboratory of Molecular Biology and Past President of the Royal Society

## 2021 - 2022

### AUTUMN TERM 2021

**2 November**

### **The joy of insect watching**

Dr William Foster

**16 November**

### **Hey Siri! How smart are you?**

Professor Steve Young

**7 December**

### **Why calories don't count**

Dr Giles Yeo

## SPRING TERM 2022

**8 February**

### **Climate Change: Science, Technology and the Home**

Professor Alan Windle FRS

**22 February**

### **Upside Down and Inside Out: Understanding early multicellular life**

Professor Raymond E. Goldstein FRS

**8 March**

### **SARA-Co-2 Variants: Past, Present and Future**

Professor Sharon Peacock FRS

**22 March**

### **What is Life?**

Sir Paul Nurse

**SPRING TERM 2021**

**19 January**

**Epidemiology: from Covid-19 to protecting food security**

Prof Chris Gilligan CBE, Department of Plant Sciences

**2 February**

**Can we refreeze the Arctic?**

Dr Hugh Hunt, Reader in Engineering Dynamics and Vibration

**23 February**

**Antimicrobial resistance – why you should care**

Dame Sally Davies FRS, Master of Trinity College and former Chief Medical Officer for England

**2 March**

**SARS-CoV-2 Infection – Where are we now?**

Prof Paul Lehner FMedSci, Professor of Immunology and Medicine

**9 March**

**Beauty and the Beast: Matter, Antimatter and the Large Hadron Collider**

Prof Valerie Gibson, Head of High Energy Physics Research Group, Cavendish Laboratory

**27 April**

**Dyslexia, rhythm, language and the developing brain**

**11 May**

**Under the volcano**

Professor Marian Holness

**18 May**

**Vaxxers: The making of the Oxford vaccine**

Professor Cath Green

## 2019 - 2020

### AUTUMN TERM 2019

**15 October**

**Applications of Graphene and Related Materials**

Professor Andrea Ferrari (Director of The Graphene Centre)

**12 November**

**How Insects Jump so Far and so Fast**

Professor Malcolm Burrows FRS (Former Head of Department of Zoology)

**26 November**

**The Fuel of Life**

Sir John Walker FRS (Nobel Laureate in Chemistry)

**10 December**

**Plastic Planet**

Dr. Claire Barlow (Deputy Head of Department of Engineering)

### SPRING TERM 2020

**21 January**

**Will the Earth become too hot for your grandchildren to handle?**

Prof Herbert Huppert FRS, Institute of Theoretical Geophysics

**11 February**

**Arise, Sir Isaac! Newton's London career**

Dr Patricia Fara, Emeritus Fellow of Clare College

**3 March**

**The consequences of DNA mutations in our bodies throughout life**

Sir Michael Stratton FRS, Director, Wellcome Sanger Institute

## 2018 - 2019

### AUTUMN TERM 2018

**9 October**

**Improving communication about medical treatments**

Sir David Spiegelhalter FRS

**23 October**

**Reverse engineering the violin**

Professor Jim Woodhouse

**20 November**

**The Optical Microscope in the Age of DNA**

Dr Brad Amos FRS

**4 December**

**The scientist & the art forger**

Professor Jehane Ragai

### SPRING TERM 2019

**29 January**

**The start of life - How embryos build themselves from stem cells**

Prof Magdalena Zernicka Goetz FMedSci

**5 February**

**Protein aggregation in Alzheimer's and Parkinson's diseases: towards a therapeutic target**

Prof Maria Grazia Spillantini FMedSci FRS

**12 February**

**Under the waves: volcanoes, earthquakes and life at the bottom of the deep blue sea**

Prof Mary Fowler

**19 February**

**Your place in the Cosmos**

Prof Carolin Crawford

**26 February**

**The Cambridge Conservation Initiative – Transforming the prospects for our natural world**

Dr Mike Rands

**5 March**

**Bragg, Perutz and Kendrew and the Origins of Molecular Biology**

Sir John Meurig Thomas FRS

## 2017 - 2018

### AUTUMN TERM 2017

**17 October**

**The Wonder of Iron**

Professor Sir Harry Bhadeshia FRS, Tata Steel Professor of Metallurgy

**31 October**

**Translating Academic Research into New Cancer Therapies**

Professor Steve Jackson FRS, Quick Professor of Biology

**14 November**

**Food for Thought: Building a Simple Brain**

Professor Andrea Brand FRS, Herchel Smith Professor of Molecular Biology and Royal Society Darwin Trust Research Professor

**28 November**

**Astrophysical Black Holes**

Professor Andy Fabian FRS, Royal Society Research Professor, Institute of Astronomy

### SPRING TERM 2018

23 January

**Thinking Like a Vegetable – How Plants Decide What to Do**

Dame Ottoline Leyser FRS, Director of the Sainsbury Laboratory, Cambridge University

6 February

**Bragg, Perutz and Kendrew and the Origins of Molecular Biology**

Sir John Meurig Thomas FRS, Former Director of the Royal Institution, former Master of Peterhouse and former Head of the Department of Physical Chemistry.

20 February

**Building Satellites: It's not Rocket Science**

Tony Jorden, Former Satellite Engineer, Airbus Group

6 March

**The Return of the Whale and the Redevelopment of the Museum of Zoology**

Dr Roz Wade, Interpretation and Learning Officer, University Museum of Zoology

## 2016 - 2017

### AUTUMN TERM 2016

**11 October**

**Einstein, General Relativity and the Discovery of Gravitational Waves**

Professor Malcolm Longair, Jacksonian Professor Emeritus of Natural Philosophy  
University of Cambridge

**25 October**

**Quantum Gravity and Spherical Chickens**

Dr Ray Adams, Churchill College, Cambridge and U3AC Tutor

**22 November**

**Wind, Wave and Tidal Power Generation; Reliability and the Cost of Energy**

Dr Peter Tavner, Emeritus Professor School of Engineering and Computing, Durham

**29 November**

**The work of the International Whaling Commission**

Dr Simon Brockington, Chief Executive, International Whaling Commission

### SPRING TERM 2017

**17 January**

**Gyroscopes and Boomerangs**

Dr Hugh Hunt, Reader in Engineering Dynamics and Vibration, Cambridge University

**21 February**

**The Beauty of Flavour: Latest results from the LHCb experiment at the Large Hadron Collider  
Professor**

Professor Valerie Gibson, Head of the High Energy Physics Research Group in the Cavendish  
Laboratory

**14 March**

**Calcium and Vitamin D requirements for bone health**

Dr Ann Prentice, Director, MRC Elsie Widdowson Laboratory Cambridge and Head of Nutrition and  
Bone Health Group

### SUMMER TERM 2017

**9 May**

**Steve Austin was just ahead of his time!**

Dr Ewen Kellar, The Welding Institute, Abington

## 2015 - 2016

### AUTUMN TERM 2015

**20 October**

**The Early History Of The Cavendish Laboratory**

Malcolm Longair CBE FRS, Director of Development, Cavendish Laboratory  
Jacksonian Professor of Natural Philosophy Emeritus, Cavendish Laboratory

**3 November**

**How Have Humans Evolved? Our History In Our DNA**

Dr Ken Edwards, former Vice-Chancellor of the University of Leicester

**1 December**

**A Tale of Three Caves**

Professor Graeme Barker, recently retired from the Disney Chair of Archaeology in Cambridge.

**8 December**

**A Winter's Tale: The First Noel?**

Professor Bernard Golding, University of Newcastle

### SPRING TERM 2016

**26 January**

**Modelling with Mathematics**

John Trapp, Researcher, Dept. of Maths and Statistics, Open University; Staff tutor, East Anglian Regional Office

**9 February**

**Epigenetics: Telling your genes what to do**

Dr Christel Krueger, Research Fellow in the Epigenetics Programme at the Babraham Institute in Cambridge

**23 February**

**Cell division, the life and death machine – and why we haven't got a cure for cancer just yet**

Dr. Bernhard Strauss, Research fellow at the Gurdon Institute, Cambridge

**15 March**

**"Planet Earth – We have a Problem!"**

David Wasdell – Director Apollo-Gaia Project

### SUMMER TERM 2016

**12 April**

**Planetary Space Weather – Radiation Belts Of The Solar System**

Emma Woodfield, Space Weather and Atmosphere Group, British Antarctic Survey, Cambridge

**26 April**

**What Is Ageing And What Can We Do About It?**

Richard Faragher, Professor of Biogerontology, University of Brighton - past Chair of the British Society for Research on Ageing and of the International Association of Biomedical Gerontology

**10 May**

**The Butterfly Effect**

Professor Mike Thompson, Department of Applied Mathematics and Theoretical Physics University of Cambridge



## 2014 - 2015

### AUTUMN TERM 2014

**21 October**

**What is matter?**

Dr Jeremy Butterfield

Jeremy Butterfield FBA is a Senior Research Fellow in philosophy of physics at Trinity College, Cambridge.

**4 November**

**How does understanding the genetics of rare diseases lead to new treatments?**

Professor Nicholas Morrell

**18 November**

**My life at Anglesey**

Richard Ayres MBE

### SPRING TERM 2015

**13 January**

**The Once and Future Internet**

Professor Jon Crowcroft FRS

**27 January**

**Did Your Genes Play Dice When They Made Your Brain?**

Professor Bill Harris FRS

**17 March**

**Spots Before the Eyes – A Century of Diffraction Crystallography**

Dr Erica Bithell, a Learning Technologist with the University Information Services, supporting and developing Cambridge University's Moodle virtual learning environment.

### SUMMER TERM 2015

**14 April**

**Battling the Bugs: Overcoming the Challenges of Antibiotic Resistance**

Dr Christine Boinett

**21 April**

**Frozen in Time: Ice Cores and Climate**

Professor Eric Wolff FRS

## 2013 - 2014

### AUTUMN TERM 2013

**22 October**

**Floodplain Meadows: Patterns in Vegetation**

Prof David Gowing

**12 November**

**Alzheimer's Disease: Past, Present and Hope for the Future**

Dr Eric H. Karran

**26 November**

**Manufacturing at the Speed of Light**

Prof Bill O'Neill, Professor of Laser Engineering within the Cambridge University Engineering Department and Director of the Centre of Industrial Photonics which he established in 2006. He is also a fellow of Downing College.

### SPRING TERM 2014

**21 January**

**Could feeling less anxious about climate change help us do more?**

Dr Rosie Robison, Research Fellow at the Global Sustainability Institute (GSI), at Anglia Ruskin University, Cambridge.

**18 February**

**Heart of Darkness: Origin of Structure in the Universe**

Dr Simon Mitton, Second Bursar and Steward, St Edmund's College.

**11 March**

**What do genes, medieval manuscripts and Persian carpets have in common?**

Prof Chris Howe, Professor of Plant and Microbial Biochemistry within the Department of Biochemistry, and a Fellow of Corpus Christi College

### SUMMER TERM 2014

**13 May**

**Ophiolites: what they are and why the Tethyan ophiolites are probably not remnants of the Tethys**

Dr Alan Smith, Emeritus Reader, Department of Earth Sciences and a Fellow of St. John's College.

**20 May**

**Demystifying Cancer**

Dr Robin Hesketh, member of the Department of Biochemistry, Cambridge and fellow of Selwyn College

## 2012 - 2013

### AUTUMN TERM 2012

**16 October**

**Cambridgeshire Wildlife: Past Present and Future**

Brian Eversham, Chief Executive for the Wildlife Trust for Beds, Cambs & Northants

**13 November**

**The Magic of Movement: A Bird's Eye View**

Professor Nicola S. Clayton, FRS

**27 November**

**The Resilient Brain: Cognition and Ageing**

Professor Lorraine K Tyler, FBA

### SPRING TERM 2013

**15 January**

**What are the Chances? Living with Risk and Uncertainty**

Professor David Spiegelhalter, Winton Professor of the Public Understanding of Risk at the University of Cambridge and previously Senior Scientist in the MRC Biostatistics Unit.

**19 February**

**Maintaining the Wires: Challenges and Solutions in the Ageing Nervous System**

Dr Michael Coleman, Babraham Institute

**5 March**

**How Plants Tell the Time**

Dr Alex Webb, Reader in Cell Signalling in the Department of Plant Sciences, University of Cambridge

### SUMMER TERM 2013

**14 May**

**Cambridge Sundials and Time**

Dr Frank King, Praelector and Fellow in Computer Science at Churchill College.

**21 May 2013**

**The Large Hadron Collider – The High Energy Frontier**

Professor Valerie Gibson, Professor in High Energy Physics in the Cavendish Laboratory and Fellow and Director of Studies at Trinity College.

## 2011 - 2012

### AUTUMN TERM 2011

**18 October**

**Cuckoo versus hosts; an evolutionary arms race**

Nick Davies, FRS

**15 November**

**Antibiotics, virulence, faith, plagues....**

Professor George Salmond

**29 November**

**Sir Humphry Davy: Natural Philosopher, Discoverer, Inventor, Poet, Man of Action**

Sir John Meurig Thomas, FRS

### SPRING TERM 2012

**17 January**

**Life's future in the universe**

Professor Martin Rees, FRS (Lord Rees of Ludlow)

**7 February**

**Letting off pressure – as simple as ABC**

Professor Morris Brown, MD, FRCP

**6 March**

**All power is theft**

Dr Richard McMahon

### SUMMER TERM 2012

**24 April**

**Can study of the history of science explode myths?**

Professor Martin Johnson, PhD, FRCOG

**15 May**

**The wonder of wheels**

Dr Chris Burgoyne

## 2010 - 2011

### AUTUMN TERM 2010

**Tuesday 19 October**

**Understanding visual perception**

Jeremy Clare

**Tuesday 2 November**

**RNA silencing: a new approach to control of disease in plants and animals**

Professor Sir David Baulcombe, FRS

**Tuesday 16 November**

**Cancer, DNA and Darwin**

Professor Ron Laskey, FRS.

### SPRING TERM 2011

**Tuesday 25 January**

**Women and the history of science**

Patricia Fara

**Tuesday 8 February**

**Why do humans share food?**

Professor Martin Jones

**Tuesday 1 March**

**The perception of colour**

Professor John Mollon, FRS

### SUMMER TERM 2011

**Tuesday 17 May**

**Intelligence in old age**

Professor Nicholas Mackintosh, FRS

**Tuesday 24 May**

**Life or death decisions at the cellular level**

Professor Andrew Wyllie, FRS

## 2009 - 2010

### AUTUMN TERM 2009

**Tuesday 13 October**

**Climate Change and Sustainable Energy**

Dr Hugh Hunt

**Tuesday 20 October**

**Brain Gender**

Professor Melissa Hines

**Tuesday 24 November**

**Disease, Experiment and Physiology**

Professor James Fitzsimons, MD, FRS

### SPRING TERM 2010

**Tuesday 19 January**

**Polar insects – survival of cold and climate change**

Professor Bill Block

**Tuesday 9 February**

**Stem Cells: Hope or Hype?**

Dr Kate Quinlan and Professor Roger Pedersen

**Tuesday 23 February**

**Discovering what genes do by knocking them out: control of puberty and fertility**

Professor Bill Colledge

**Tuesday 9 March**

**Post-war Ornithology in Cambridge**

Peter Bircham

### SUMMER TERM 2010

**Tuesday 11 May**

**The Science and Beauty of Nebulae**

Dr Carolin Crawford

**Tuesday 25 May**

**Moving in an uncertain world: How the brain controls the body**

Professor Daniel Wolpert, MD, Ph

## 2008 - 2009

### AUTUMN TERM 2008

**Thursday 16 October**

**Global Darwin**

Professor James Secord, Professor of History and Philosophy of Science, Director of the Correspondence of Charles Darwin, Dept of the History and Philosophy of Science, University of Cambridge

**Thursday 30 October**

**GM crops and reflections on future food, feed, fuel, fibre and famine**

Professor Philip J Dale, Emeritus Fellow of the John Innes Centre in Norwich

**Thursday 13 November**

**Herbs or Pills? A Pharmacologist's Perspective**

Dr Jenny Koenig, Dean, Lucy Cavendish College, University of Cambridge

### SPRING TERM 2009

**Thursday 22 January**

**Towards the star trek tricorder - the science fact and fiction behind the genomic discovery of biomarkers**

Dr Jules Griffin

**Thursday 5 February**

**A new picture of the past**

Carenza Lewis, Archaeologist

**Thursday 19 February**

**Animal communication and the evolution of human language**

Bert Vaux, University Lecturer in Linguistics

### SUMMER TERM 2009

**Tuesday 19 May**

**Earthquakes, volcanoes and continental drift**

Dr Alan Smith, Emeritus Reader in the Earth Sciences Department of Cambridge University and a member of the U3AC.

**Tuesday 2 June**

**A fresh look at the Scenery of Britain**

Peter Friend, Earth Sciences Department of Cambridge University and author of a newly published book in the Collins New Naturalist Series on the landscape and geology of Southern England