

# Come and ask a Biologist!

Our members are the lifeblood of the Royal Society of Biology  
Over the 4 days of New Scientist Live, we'd love you to meet them.

**Find our stand in the Earth Zone of the Exhibition**

Read on to find out who you will be meeting and what to ask them!

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**We are the Royal Society of Biology**

**a single unified voice for biology**

**Our vision** is of a world that understands the true value of biology and how it can contribute to improving life for all.

**Our mission** is to be the unifying voice for biology, to facilitate the promotion of new discoveries in biological science for national and international benefit, and to engage the wider public with our work.

**Our 16,500+ members** include Nobel laureates, practising scientists, students at all levels, professionals in academia, industry and education, and non-professionals with an interest in biology.



Royal Society of  
**Biology**



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**Ask me, “Are we ready for the next Ebola?”**

Dr Catrin Moore FRSB

Head of Operations, Epidemic diseases Research Group Oxford (ERGO), University of Oxford

@catmoore\_1  
@ERGO\_Horby

*One of the most exciting moves I made was to join the Epidemic diseases Research Group Oxford (ERGO); I joined the group just as the first clinical trial in Liberia ended, and managed the set up and running of the second clinical trial of an experimental drug to treat patients with Ebola in Sierra Leone. My work brings together my interests in science and microbiology with a rapid outbreak response to provide quality care to patients in our clinical trials.*



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**Ask me, “What is synthetic biology and where will it lead us?”**

Dr Vitor Pinheiro MRSB

Lecturer in Synthetic Biology,  
University College London (UCL)

@p\_xisto

*I trained as a biochemist at the University of Cambridge and have now been a synthetic biologist for over a decade, currently working as a Senior Lecturer in Synthetic Biology at University College London (UCL). I developed the first artificial DNAs (or XNAs) and now my research explores the paths biology has not yet taken – the ‘why not’ and ‘what if’ questions that I hope will give us a better understanding of life and a better future life.*



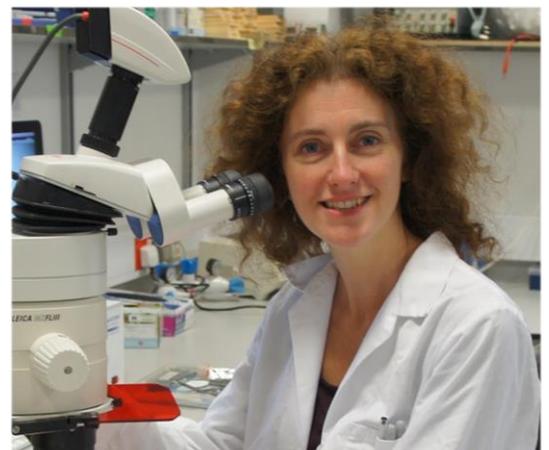
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**Ask me, “How does death shape our bodies as we grow in the womb?”**

Professor Abigail Tucker FRSB

Professor of Development & Evolution, King's College London

*I am a biomedical researcher with a lab in the Department of Craniofacial Development and Stem Cell Biology at King's College London. My lab focuses on the embryonic formation of the face, particularly the jaw, teeth and ear, structures all linked during development. The lab is interested in how these parts of the face form during normal development and what goes wrong in the case of birth defects. In addition we study how evolution shapes our faces to understand diversity.*



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**Ask me, “What is a metabolome and why do I need one?”**

Dr Toby Athersuch MRSB

Lecturer in Environmental Toxicology, Imperial College London

*I am a Lecturer in Environmental Toxicology & Biomarkers in the Department of Surgery and Cancer. My main research interests are in the application of molecular profiling technologies – primarily metabolic profiling using NMR and MS based platforms – to study aspects of human health and disease. A key research question of importance is how to improve exposure assessment in individuals, small area studies and molecular epidemiology projects investigating environmental exposures. I am also interested in addressing the need for a more comprehensive understanding of the toxicological implications of emerging materials such as nanoparticles.*



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**Ask me, “What is gene-doping and how can it make super-human athletes?”**

Dr David Bishop-Bailey FRSB

Senior Lecturer, Royal Veterinary College

*I am a Senior Lecturer in the Department of Comparative Biomedical Sciences at the Royal Veterinary College, University of London. After studying for a degree in Pharmacology at Kings College London, followed by a PhD at the National Heart and Lung Institute, Imperial College, I then went to train at the University of Connecticut Health Center, before returning to the William Harvey Research Institute, Queen Mary University London. I have over 70 publications in the areas of inflammation, heart disease, cancer and metabolism, and my particular interest is in how exercise benefits health.*



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**Ask me, “How could robots help us grow our food?”**

Dr Liliya Serazetdinova MRSB

Knowledge Transfer Manager for Plants and Crops,  
Knowledge Transfer Network

@serazetdinova\_l

*I am an experienced knowledge transfer professional with strong industry and academic networks in agri-biotech and biorenewables sectors, a PhD in Plant Genetics and Biology, and over 14 years scientific expertise in plant breeding, phytopathology, and biochemistry. I've facilitated multiple collaborations between businesses and academia. I'm currently working within the Agriculture Team of the KTN, and assisting companies that develop innovative products and technologies based on use of plants and crops.*



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**Ask me, “How can tiny microbes help us clean up the planet?”**

Dr Diane Purchase MRSB

Associate Professor in Environmental Biology/Health,  
Middlesex University

*I am passionate about the environment and also fascinated by the hidden power of microorganisms, so I combined these two long-held interests in my research to understand and harness the amazing abilities of tiny microbes to clean up our environment. I have worked with many microorganisms, including those found in plant roots, on poultry feathers, in sediment of a constructed wetland receiving urban runoffs in London, soils from a disused tin mine in Cornwall and petroleum-contaminated sites in Nigeria.*



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**Ask me, “Am I a Neanderthal?”**

Dr Simon Underdown FRSB

Senior Lecturer in Biological Anthropology, Oxford  
Brookes University

@sunderdown

*I'm Senior Lecturer in Biological Anthropology at Oxford Brookes where I study human evolution. I'm especially interested in the Neanderthals, ancient DNA, disease evolution and why we have such big brains. I've done fieldwork across the world especially in the Middle East and South America. I've written several books on human evolution and am currently working on one on Ancient DNA. In my spare time I enjoy losing at Scrabble to my wife and being outwitted by our 2 year old daughter.*



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**Ask me, “What energy-saving secrets are hiding in the Antarctic?”**

Dr Beatrix Schlarb-Ridley FRSB

Director of Innovation and Impact, British Antarctic Survey

@BAS\_News

*I studied Biochemistry in Germany and then moved to the University of Cambridge, where I obtained my MPhil and PhD in photosynthesis research. With 20 years' experience in fundamental and applied research, I focus on unlocking the potential of polar research for the benefit of society and industry. I'm involved in commercialising algae- and moss-based biophotovoltaic devices, as well as driving the development of an Innovation Centre at BAS.*



13:30-17:00 on Friday 23 September

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**Ask me, “How can scientists improve my breakfast?”**

Dr Sofia Kourmpetli MRSB

Lecturer in Plant Science, Cranfield University

@sofia\_kour

*I am a Lecturer in Plant Science at Cranfield University and the director of an MSc course in Future Food Sustainability. I have studied agriculture and plant genetic manipulation, and I have worked on fruit development in opium poppy and the evolution of fruit form. I now focus my research on understanding the genetic factors that control grain development and quality in cereals such as wheat, rye and triticale, in order to accelerate crop improvement and ensure food security.*



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**Ask me, “What's a circadian clock and why is it important for my heart?”**

Dr Nelson Chong FRSB

Senior Lecturer in Pharmacology, University of Westminster

*I was educated right here in London and have been fortunate to have travelled around the world to work and present my research findings. I have always been fascinated by life sciences, especially how it affects us in our health and well-being. Our bodily functions are regulated by genes and my particular interest is how these genes are optimised at different times of the day to fine tune daily functions in the heart to cope with our stressful lives*



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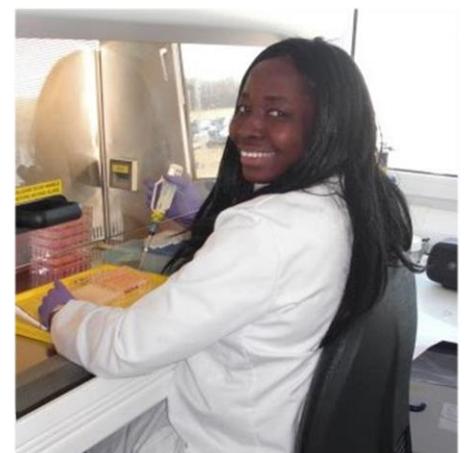
**Ask me, “Why does my skin get dry and itchy?”**

Miss Hephzi Angela Tagoe MRSB

PhD Researcher, UCL Great Ormond Street Institute of Child Health

@hanat\_akordor

*I'm a research scientist with a background in Immunology and Pharmaceutical science. I love to engage the public with science so when I'm not in the lab, you can find me among a bunch of school pupils or mingling at a conference. My PhD is focused of finding the signalling mechanisms that lead to scaling in skin disease. In my spare time, I write a blog at [hanatakordor.blogspot.com](http://hanatakordor.blogspot.com)*



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**Ask me, “Do humans smell sex pheromones?”**

Dr Alfredo Sansone MRSB

PhD Researcher, University College London (UCL)

@alfredo\_san\_

*I was born in Napoli, Italy, where I grew up and studied Biology at the University of Naples Federico II. Afterwards he moved to Germany to carry out his PhD in Neuroscience at the University of Göttingen, studying the physiology and development of the olfactory system. I'm now a Postdoctoral Research Fellow at University College London (UCL), where my work focuses on how migrating cells in the body sense their environment and communicate with one another, a crucial phenomenon for embryonic development and cancer.*



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**Ask me, “How do we use our brains to learn?”**

Professor Narender Ramnani FRSB

Professor of Neuroscience, Royal Holloway, University of London

@n\_ramnani

*After graduating in Psychology, I completed an MSc in Neuroscience (KCL) and a PhD in Behavioural Neuroscience (UCL). I trained in brain scanning methods as a postdoctoral scientist at UCL and the University of Oxford. I use brain scanning to try to answer questions like: How do thoughts become skilful and automatic? What is the ‘social’ brain and how does it represent the thoughts and intentions of others?*



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**Ask me, “What is wildlife crime and how can we tackle it?”**

Dr Anne-Maria Brennan FRSB

Forensic Biologist

*I am a forensic biologist specialising in wildlife crime and environmental profiling. Educated at the Universities of York, Wales and Imperial College, my most recent role was as an Associate Professor in Applied Science. I started writing news items for New Scientist and have written five books, including the popular textbook First Ecology now in its third edition. I am active in public engagement with science, particularly the interface between science, technology and culture, through the British Science Association.*



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**Ask me, “How does breast milk save the lives of premature babies and stop women getting cancer?”**

Dr Natalie Shenker MRSB

Postdoctoral Scientist and Social Entrepreneur, Imperial College London

@DrNShenker

*Having initially training as a paediatric surgeon, I went on to do a PhD at Imperial College London in cancer epigenetics, focussing primarily on breast cancer. I am passionate about developing a National Milk Bank Service in the UK and, as part of this process, have co-founded the Herts Milk Bank ([www.hertsmilkbank.com](http://www.hertsmilkbank.com)), a social enterprise that will become the regional milk bank for London and the southeast. This will also enable the development of a novel breast milk biobank for research into breast cancer risk and infant nutrition.*



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**Ask me, “How could my gut bacteria be affecting my brain?”**

Dr Hannah Lees MRSB

Research Associate, Imperial College London

*I work as a postdoctoral scientist at Imperial College in the area of metabonomics: a method of measuring the concentration of small molecules found in the urine, blood, faeces and other biofluids of patients, in order to better understand how their bodies (and gut bacteria) are working. I am particularly interested in how the bugs in our gut affect our health, such as in diverse disorders including obesity, Crohn's disease and most interestingly our neurobiology and potentially psychology.*



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**Ask me, “How could computers transform how we understand biology?”**

Dr Arun Prasad Pandurangan MRSB

Research Associate, University of Cambridge

*My research broadly focuses on using computers to understand biological processes. I have developed computational methods to help design drugs by predicting its binding mode to a target protein and to predict protein three-dimensional structure from its amino acid sequence.*

*Recently, I have developed tools to predict multi-component macromolecular assemblies using density maps obtained from electron microscopy technique. Currently, my research focuses on predicting the effects of mutations on protein stability and its implication in disease and drug resistance.*



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**Ask me, “How do stem cells work in my body?”**

Dr Kif Liakath-Ali MRSB

Research Associate, Centre for Stem Cells & Regenerative Medicine, King's College London

*My love for biology is rooted in my native village, very close to a wildlife sanctuary in Southern India. I obtained my PhD from the University of Cambridge, specialising in mouse genetics and molecular cell biology, and I'm now a stem cell researcher at King's College London. My research focus has been on how skin stem cells maintain their function through novel mechanisms and the genetic pathways involved. I'm also interested in seeing art through science.*



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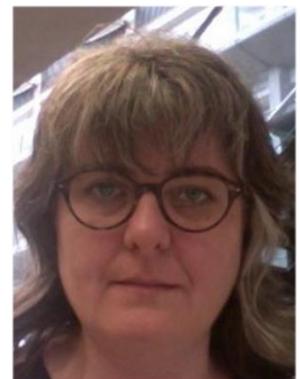
**Ask me, “How can bugs in our gut keep us healthy?”**

Dr Lesley Hoyles MRSB

MRC Intermediate Research Fellow, Imperial College London

@BugsInYourGuts

*I work at Imperial College London, and am a microbiologist who uses a combination of laboratory work and computing to learn how the bacteria in our guts interact with our bodies, and help keep us healthy.*



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**Ask me, “Why are coral reefs so important for everyone?”**

Professor James Crabbe FRSB

Professor of Biochemistry (Emeritus), University of Oxford

@jamescrabbe

*I'm a Fellow of Wolfson College, Oxford, and a Senior Research Associate of the Department of Zoology at the University of Oxford, Honorary Professor at Changchun University of Science and Technology, China and a Vice-President of the Institute of Marine Engineering, Science & Technology. In 2006, I won the 6th Aviva / Earthwatch International Award for Climate Change Research and in 2008, the Great Contributors to China Creative Industries Award, presented at the Diaoyutai State Guesthouse in Beijing.*



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**Ask me, “How do mushrooms have sex?”**

Dr Crawford Kingsnorth FRSB

Biology Subject Specialist, Cambridge Assessment

@BiolEdgy

*I'm a mushroom scientist and educationalist. I gained a D.Phil. at the University of Oxford investigating how mushrooms have sex, then researched how mushrooms go bad at the National Vegetable Research Station, before finally researching into how sugar beet gets infected. I'm now working as a subject specialist at Cambridge Assessment (University of Cambridge) as a biology subject specialist producing the new Gateway GCSE specifications.*



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**Ask me, “What’s it like to be an ice-cream scientist?”**

Miss Siobhan Gardiner MRSB

Plant Scientist (PhD Researcher), Cranfield University & Unilever

@Just\_Shiv

*I'm a final-year PhD student at Cranfield University, sponsored by the BBSRC and Unilever. With a background in biochemistry and plant science, my research is on the flavour chemistry, biodiversity and sustainable production of natural vanilla. Working alongside ice cream flavour research and design during her studies, I love being at the bridge between academic and industrial science (not to mention the ice cream tasting!). I'm also a passionate advocate for STEM outreach, and recently founded a robotics start-up for agriculture in developing nations*



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**Ask me, “How can I turn my smart phone into a microscope?”**

Dr Louise Hughes MRSB

BioImaging Researcher and Microscopist,  
Oxford Brookes University

@drlouisechughes

*I manage the bio imaging unit at Oxford Brookes University. I've been working with electron microscopes for 16 years and have imaged everything from viruses and parasites, cells, tissues and even whole organisms. I also turn microscope images into art and will be showing simple tricks to turn phones or tablets into mobile microscopes.*

