

2026 Spring Series on Magnetic Fields and Biology Programme

All sessions 15:00hrs-17:00hrs UK-time on Zoom*

Magnetic fields are increasingly being recognised as crucial to biological processes, from bird navigation to human cellular functions. In this series we will explore the 'magnetobiology' field, including the underlying mechanisms, the evidence for its effects in plants, animals and humans and its potential for medicine.

Session 1: Wednesday 11 March*

Magnetic fields and biology

Introduction: Professor Alistair Nunn, The Guy Foundation and University of Westminster

Speaker: Professor Jonathan Woodward, University of Tokyo

Speaker: Dr Brian Ross, The Quantum Biology Institute

Session 2: Wednesday 25 March*

The therapeutic use of magnetic fields

Introduction: Dr Rhys Mould, University of Westminster **Speaker: Professor Margit Egg,** University of Innsbruck

Speaker: Professor Martyn A Sharpe, Houston Methodist Hospital

Speaker: Kamran Ansari, Stanford University and GP Bullhound Young Entrepreneur of the Year

Session 3: Wednesday 22 April

The evidence for magnetobiology – Part I animals and humans

Introduction: Sanika Ghayal, University of Westminster

Speaker: Professor Wendy Beane, Western Michigan University

Session 4: Wednesday 6 May

The evidence for magnetobiology – Part II plants

Introduction: Dr Betony Adams, The Guy Foundation and Stellenbosch University

Speaker: Professor Massimo Maffei, Università di Torino

Session 5: Wednesday 20 May – roundtable session

Implications of magnetobiology

Recap of the series: Dr Betony Adams, The Guy Foundation and Stellenbosch University **Speaker: Professor Alistair Nunn,** The Guy Foundation and University of Westminster

Followed by roundtable discussion

*NB Eastern/Central/Pacific timezones: 1 & 2 start 1hr later than usual as UK clocks do not go forward until 29 March



About the series

There is growing consensus that magnetic fields play a subtle but fundamental role in biology. From the navigation systems of migratory birds to the regulation of cellular processes in humans, living systems appear to sense and respond to magnetic influences in ways we are only beginning to understand. At the molecular level, weak magnetic fields can influence the spin states of electrons involved in chemical reactions - a mechanism known as the radical pair mechanism - which may affect processes such as circadian rhythms, oxidative stress, and even metabolism. For medicine, this growing field of magnetobiology opens possibilities for novel diagnostics and therapies that harness magnetic interactions rather than conventional pharmacology. In the context of space travel, where magnetic fields differ dramatically from Earth's, understanding how life depends on magnetic cues could prove vital, helping us protect astronaut health and sustain biological function beyond our home planet.

Registration and talks

Scientists, researchers and interested individuals are invited to register to attend the live meetings by contacting Nina Copping, Programme Director n.copping@theguyfoundation.org

Watch the talks: videos of the talks will be available on our website: https://www.theguyfoundation.org/our-online-lectures/ and YouTube channel: https://youtube.com/@theguyfoundation. Stay up to date by subscribing to our YouTube channel and opt to receive notifications when new talks are uploaded.

About The Guy Foundation

The Guy Foundation is a UK-based charitable foundation established in 2018 to facilitate thinking and research on the role of quantum mechanics and thermodynamics in living systems, with the ultimate goal of using this understanding to advance healthcare. We curate, lead and fund an inter-disciplinary research collaboration and have published a number of scientific papers. We support the scientific community by convening online symposia on quantum biology and bioenergetics and we host an active network of over 300 scientists and institutions across the globe. You can find more details on our website, including talks, publications and who we are: https://www.theguyfoundation.org/

Previous lecture speakers

Dr Betony Adams Stellenbosch University and The Guy Foundation

Professor Margaret Ahmad Sorbonne University

Dr Clarice Aiello The Quantum Biology Institute

Professor Masashi Aono Keio University
Dr Nathan Babcock Howard University

Professor Wendy Beane Western Michigan University
Dr Afshin Beheshti University of Pittsburgh

Professor Jimmy Bell University of Westminster; Scientific Advisor to The Guy Foundation

Professor Stanley Botchway Central Laser Facility, UKRI; Scientific Advisor to The Guy Foundation

Dr Wolfgang Brysch MetrioPharm AG

Dr Ed CalabreseUniversity of MassachusettsDr Michal CifraCzech Academy of SciencesDr Dave EckerIonis Pharmaceuticals

Professor Matthew Fisher University of California Santa Barbara

Dr Robert FosburyUCL and the European Southern Observatory (ESO)

Professor Wayne Frasch Arizona State University; Scientific Advisor to The Guy Foundation

Dr David FurmanBuck Institute for Research on Aging

Professor Michael Hamblin University of Johannesburg

Dr Theodore Goodson University of Michigan

Dr Ali Hassanali The International Center for Theoretical Physics, Trieste

Dr Lise HébertPicchio InternationalProfessor Mohab IbrahimThe University of Arizona

Professor Glen Jeffery UCL Institute of Ophthalmology

Professor Judith Klinman UCLA Berkeley

Dr Philip Kurian Howard University; Scientific Advisor to The Guy Foundation

Professor Nick Lane University College London

Professor Mike Levin Allen Discovery Center at Tufts University

Professor Johnjoe McFadden University of Surrey

Dr Alasdair Mackenzie Central Laser Facility, UKRI at the Harwell campus

Professor Joao Pedro Magalhaes University of Birmingham

Dr Thomas H Marshburn Sierra Space and retired NASA Flight Surgeon and Astronaut

Professor James MoonBarts Heart CentreProfessor Karl MortenUniversity of Oxford

Dr Rhys MouldUniversity of Westminster

Professor Alistair Nunn University of Westminster; Director of Science, The Guy Foundation

Professor Marco Pettini Aix-Marseille University

Professor Martin Plenio Ulm University

Dr Jan Pokorný Czech Academy of Sciences

Professor Christopher D Porada Wake Forest Institute for Regenerative Medicine

Dr Ken Raj Altos Labs Cambridge Institute of Science

Professor Gregory Scholes

Princeton University

Dr Roger Seheult

Loma Linda University

Professor Christoph Simon

University of Calgary

Dr Scott M Smith Human Health and Performance Directorate, NASA Johnson Space Center

Steve ThorneThe Copernican ProjectProfessor Li-Heui TsaiPicower Institute, MITProfessor Jack TuszyńskiUniversity of AlbertaProfessor Gábor VattayEötvös Loránd UniversityBrent VaughanCognito TherapeuticsProfessor Vlatko VedralUniversity of OxfordProfessor Giuseppe VitielloUniversity of Salerno

Professor Douglas C Wallace The Children's Hospital of Philadelphia (CHOP)

Professor Steve Wedge Cancer Research UK
Professor Richard Weller University of Edinburgh
Professor Jonathan Woodward The University of Tokyo