# **Current Science and Society** Bentham House, University College London, Tuesday 11th and Wednesday 12th July 2023









Imperial College London

# Day One

### Tuesday 11th July, 2023

Registration in the Foyer from 09:00 Breakfast in the Foyer from 09:30-10:00

### Plenary [10:00-11:00]

Host and pathogen determinants of immunophenotype switching in chronic respiratory aspergillosis

Professor Darius Armstrong James Imperial

SB31 Denys Holland LT

### Contemporary Issues in Society [11:00-12:15]

Social justice and health equity Professor Sir Michael Marmot UCL SB31 Denys Holland LT Coronavirus and the shifting landscape of policy
Professor Françoise Balloux UCL
Bentham House LG26

Viruses: from Cancer to COVID and back again Professor Lawrence Young Warwick 124 Gideon Schreier Lecture Theatre

Light Break [12:15-12:25]

### Scientific Methods and Research [12:25-13:30]

Designing powered studies: Insights from Psychology<sup>1</sup>, Preclinical Science<sup>2</sup>, and Neuroscience<sup>3,4</sup> Dr Daniel Baker <sup>York</sup> Dr Eileidh Macnicol <sup>KCL</sup> Professor Marcus Munafo <sup>Bristol</sup> Dr Simon White <sup>Cambridge</sup>

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Modelling and simulation in healthcare
Professor Steven Niederer Imperial
Dr Srikanth Ramaswamy Newcastle
Bentham House LG26

Historical uses of natural products as antimicrobials: insights from a STEM arts consortium

Dr Freya Harrison Warwick

124 Gideon Schreier Lecture

Theatre

### **Lunch** [13:30-14:15]

Poster Session<sup>1</sup> & Stand Tour<sup>2</sup> [14:15-14:45]

221 Hong Kong Alumni Room<sup>1</sup> Foyer<sup>2</sup>

### **Keynote** [14:45-15:45]

A shifting landscape for science and society

Dr Adam Rutherford UCL.

SB31 Denys Holland LT

### **A touch of relief** [15:45-16:45]

Microfluidics for T-cell receptor selection Dr. Sam Au Imperial SB31 Denys Holland LT A neurological basis for the benefits of affective touch: the tale of the c-tactile afferent Dr. Susannah Walker LJMU Bentham House LG26 The scientific efficacy of phytoaromatics and their utility for memory and broader health Dr. Mark Moss Northumbria 124 Gideon Schreier Lecture Theatre

Light Break [16:45-17:00]

# The Importance of Sleep: What happens in those hours [17:00-18:00] MRI of the Brain's Cleaning System: Imaging Glymphatics Dr Jack Wells UCL Bentham House LG26 Circadian mechanisms regulating inflammatory and energy metabolism converge on the liver Professor David Ray Oxford Professor David Ray Oxford 124 Gideon Schreier Lecture Theatre Mysterious in those hours [17:00-18:00] Light, Clocks and Sleep: Why artificial light matters for healthy physiology and behaviour Professor Stuart Peirson Oxford SB31 Denys Holland LT Mysterious functions of sleep: insights from evolution Dr. Giorgio Gilestro Imperial LG17 Seminar Room

Day One Closing [18:05-18:15]

MRC Joint DTP Committee

SB31 Denys Holland LT

# Day Two

### Wednesday 12th July, 2023

Registration in the Foyer from 09:00 Breakfast in the Foyer from 09:30-10:00

### Plenary [10:00-11:00]

Treatment of Cancer: where are we now?

Professor Charles Coombes Imperial

SB31 Denys Holland LT

### Light Break [11:00-11:10]

### Communicating Science [11:10-12:10]

Research that reaches: from analysis to audience Chair: Freya Robb Science Media Centre Dr Sarah Bailey Bath Professor Lawrence Young Warwick Dr. Clare Wilkinson UWE SB31 Denys Holland LT Scientific Podcasts
Ms. Hayley Dunning Imperial
Dr. Adam Rutherford UCL
Mr. Karl JC Byrne LSHTIM
Ms. Carolina Soares UCL
Bentham House LG26

Scientific Stakeholders: Charity and
Industry
Dr Ryan Payton Oracle
Mrs Katie Dabin The Science Museum
Dr. Caoimhe Twohig-Bennett Epilepsy Research UK
Dr Joanna Riddoch-Contreras BNA, QMUL
124 Gideon Schreier Lecture Theatre

### Lunch [12:10-12:55]

### Poster Session<sup>1</sup> & Stand Tour<sup>2</sup> [12:55-13:15]

221 Hong Kong Alumni Room<sup>1</sup> Foyer<sup>2</sup>

### Modern Genetics and Cellular Imaging [13:15-14:15]

Insights into Modern Behavioural
Genetics
Professor Robert Plomin KGL
SB31 Denys Holland LT

Understanding CRISPR-cas9
Dr. Sankari Nagarajan Manchester
Dr. Elisa Aguilar-Martinez Manchester
Bentham House LG26

3D genome organisation and cancer Prof Juanma Vaquerizas Imperial 124 Gideon Schreier Lecture Theatre

Light Break [14:15-14:30]

### Keynote [14:30-15:30]

### Consciousness and questions of being

Dr Daniel Bor Cambridge and David Pearce
SB31 Denys Holland LT

### Consciousness, cognition and sociality [15:30-16:30]

Genetic basis in the evolution of social behaviour in ants Dr Yannick Wurm QMUL SB31 Denys Holland LT The neural mechanisms underlying conscious processing
Dr Emmanuel A Stamatakis Cambridge
Bentham House LG26

Conscious control: what are meditation and mindfulness, and how they can help in depression?

Sthiramanas London Buddhist Centre
Professor Thorsten Barnhofer Surrey

124 Gideon Schreier Lecture Theatre

### Bodily changes across the lifespan [16:30-17:30]

Immunology: Nutrition, and respiratory infections in athletes

Professor Lettie Bishop Loughborough

124 Gideon Schreier Lecture Theatre

Gut Feelings: Microbiome, brain & behaviour

Professor John Cryan Cork

SB31 Denys Holland LT

Antimicrobial insights: The evolution of MDR *E. coli* clones

Dr. Alan McNally Birmingham
Bentham House LG26

Healthy ageing across the lifespan
Professor Sherif El-Khamisy Sheffield
Dr Carina Kern UCL
LG17 Seminar Room

Closing Announcements [~17:30-17:45]

MRC Joint DTP Committee SB31 Denys Holland LT

## Exhibition Stands, Main staircase

### Sponsors of the MRC JDTP 2023 Symposium

### The British Neuroscience Association

The British Neuroscience Association (BNA) is the largest UK organisation connecting, representing and promoting neuroscience and neuroscientists across the globe. With local groups across the country, the BNA brings together individuals, academics, industry, charities, policy makers, funders and wider society.



### New England Biolabs (NEB)

New England Biolabs is a Certified B Corporation<sup>TM</sup> and recognized world leader in the discovery, development and commercialization of reagents for genomic research.



### **Exhibitors**

### **Brain Insights: Editorial Opportunities**

Part of the BNA's Bulletin, Brain Insights provides an opportunity for writers to hone their craft as part of a peer-reviewed public segment, with both on-line and in-print formats. Topics vary from nanorobotic applications in health to neurodegeneration and organoid models, cognition, memory and learning, bioethics and beyond! Meet the editors during the symposium and inquire about submitting!



### Oracle for Research

Oracle for Research is the research-centric component of the wider technology giant, Oracle. Oracle for Research offers access to Oracle Cloud Infrastructure (OCI), a cloud platform offering extensive computing infrastructure for researchers as well as extensive technical support and guidance. Oracle for Research offers a range of Oracle Cloud credit grants to support academic research across all fields for PhD students all the way through to senior academics.



### Gorilla Experiment Builder

Gorilla Experiment Builder is a cloud-based research platform that allows researchers and students to quickly and easily create and deploy behavioural (reaction-time) experiments online.



### Avantor

Avantor® is a leading global provider of mission-critical products and services to customers in the biopharma, healthcare, education & government, and advanced technologies & applied materials industries. Their portfolio is used in various stages of research, development and production activities. Their global footprint enables them to serve more than 300,000 customer locations and access research laboratories and scientists in over 180 countries. They set science in motion to create a better world.



### **Breathing Space**

Breathing Space is a community-focused mental health and well-being project. The project was borne from the desire to use our deep understanding of mindfulness and meditation, gained from decades' worth of experience, to help people with their mental health.

