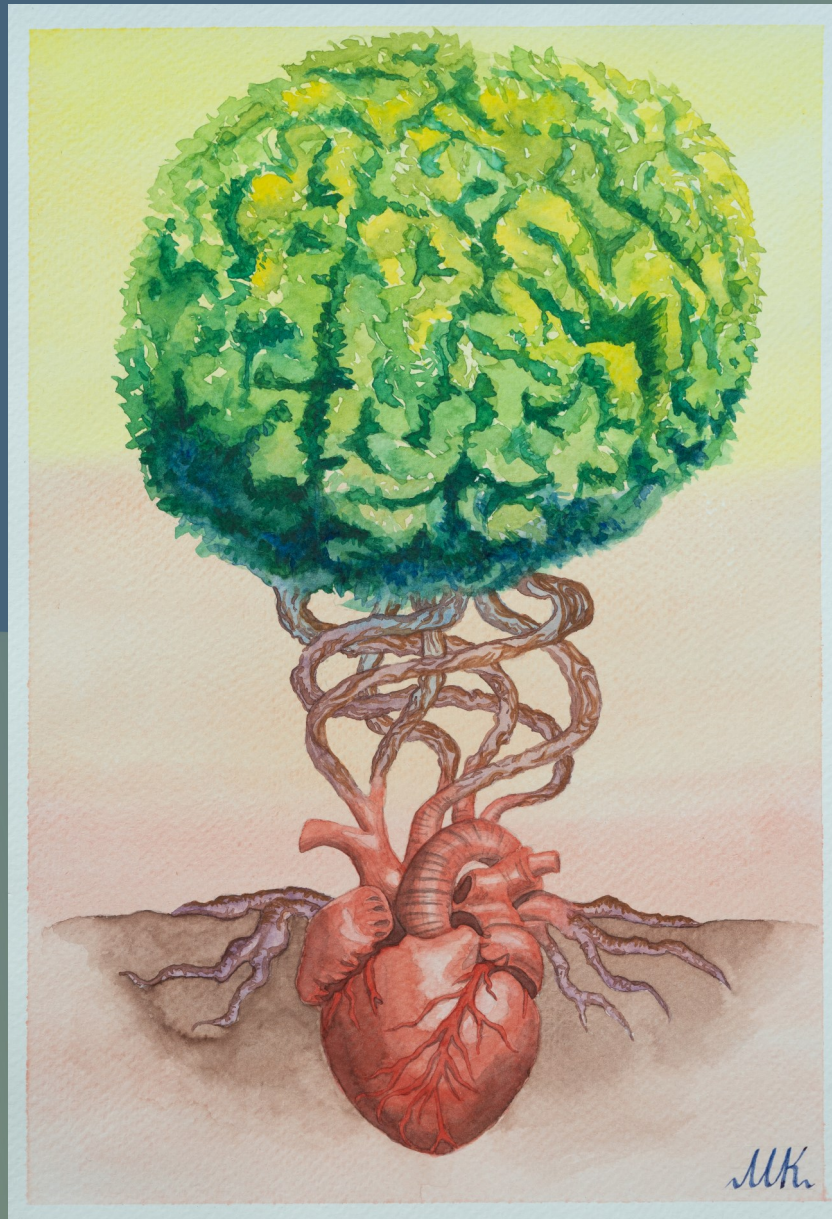




International Society for Autonomic Neuroscience

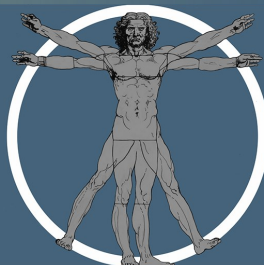


Cardiac Neurobiology: Concepts to Clinic 23rd-24th July 2024, Oxford



UNIVERSITY OF
OXFORD

DEPARTMENT OF
PHYSIOLOGY,
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The
Physiological
Society

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Programme:

Tuesday 23rd July 2024

15:00 **Registration**

16:00 **Refreshments**

17:00 **Optogenetics: opportunities for autonomic neuroscientists**

Professor Gero Miesenboeck, University of Oxford, UK

Chaired by Professor David Paterson, University of Oxford, UK

18:00 **Drinks Reception**

Programme:

Wednesday 24th July 2024

08:50 Overview of the day

Professor David Paterson, University of Oxford, UK

09:00 Session 1: Central Nervous System to Peripheral Nervous System

Chaired by Professor Andre Ng, University of Leicester, UK and Dr Peter Hanna, University of California, Los Angeles, USA

09:00 Setting the scene for cardiac autonomic neuroscience: challenges and opportunities

Professor Kalyanam Shivkumar, University of California, Los Angeles, USA

09:45 Autonomic control of the heart during exercise

Professor Alex Gourine, University College London, UK

10:15 Mechanisms of sympathetic hyperactivity in cardiovascular disease

Professor Beth Habecker, Oregon Health and Science University, USA

10:45 Sympathetic neural networks and obesity

Professor Ana Domingos, University of Oxford, UK

11:15 Refreshments

Programme:

Wednesday 24th July 2024

11:50 **Session 2: Cell-Cell Communication in the Heart**

Chaired by Dr Julia Shanks, University of Auckland, New Zealand and Professor Jack Cheng, University of Central Florida, USA

11:50 **Parasympathetic neurons derived from human pluripotent stem cells model human diseases and development**

Dr Nadja Zeltner, University of Georgia, USA

12:10 **Human iPSC derived cardiac myocytes and sympathetic neurons in CPVT**

Dr Dan Li, University of Oxford, UK

12:30 **Central amplification of respiratory sinus arrhythmia: behavioural implications**

Dr Clement Menuet, Mediterranean Institute of Neurobiology, France

12:50 **Neurocardiac aspects of the long QT syndrome**

Dr Annika Winbo, University of Auckland, New Zealand

13:10 **Lunch and networking**

Programme:

Wednesday 24th July 2024

- 14:10 **Session 3: The Bridge to Translation: Model Systems**
*Chaired by Dr Nadja Zeltner, University of Georgia, USA and
Dr Marco Mongillo, Università degli Studi di Padova, Italy*
- 14:10 **Mimicking cardiac autonomic variability for therapeutic effect**
Professor Julian Paton, University of Auckland, New Zealand
- 14:40 **Translational & clinical aspects of sympathetic neural
remodeling after cardiac injury**
Dr Olu Ajijola, University of California, Los Angeles, USA
- 15:10 **Neuralplasticity and its role in atrial fibrillation**
Professor Johanna Montgomery, University of Auckland, New
Zealand
- 15:40 **Cardiac sympathetic neuropathology supports the
multicellularity of Arrhythmogenic Cardiomyopathy**
Dr Tania Zaglia, Università degli Studi di Padova, Italy
- 16:10 **Autonomic neuromodulators as potential biomarkers and
therapeutic targets**
Professor Neil Herring, University of Oxford, UK
- 16:30 **Refreshments**

Programme:

Wednesday 24th July 2024

- 17:00 **Session 4: Neuromodulation and Target Therapies to the Heart**
Chaired by Professor Igor Efimov, Northwestern University, Illinois, USA and Professor Beth Habecker, Oregon Health and Science University, USA
- 17:00 **The "Research Evaluating Vagal Excitation and Anatomical Links" (REVEAL) study**
Professor John Osborn, University of Minnesota, USA
- 17:30 **Neuromodulation network dynamics in the fast and slow lanes of the cardiac vagus**
Professor Rajanikanth Vadigepalli, Thomas Jefferson University, USA
- 17:50 **Mapping ANS connectivity in the SPARC project**
Professor Sir Peter Hunter, University of Auckland, New Zealand
- 18:10 **Using data-driven insights from the nervous system to build neural digital therapies - the next big trend in precision medicines**
Dr Emil Hewage, BIOS Health Neural Engineering, Cambridge, UK
- 18:30 **End of meeting**
- 19:00 **Drinks and Dinner in Oxford University Museum of Natural History**



Museum of
Natural History
University of Oxford



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