

Oxford ISAN 2024 *Cardiac Neurobiology: concepts to clinic*

Tuesday 23rd July 2024

3-5pm Registration in Department of Physiology, Anatomy & Genetics, Oxford University.

4pm Tea and cake

5pm Opening Plenary Lecture – Chairs: ✓ David Paterson (Oxford) & ✓ Keith Brain (Birmingham)

✓ Gero Miesenboeck FRS (Oxford) '*Optogenetics: opportunities for autonomic neuroscientists*'

6pm Drinks Reception.

[Pubs for dinner]

Wednesday 24th July

Session one - *CNS to PNS*; Chairs: ✓ Andre Ng (Leicester) & ✓ Crystal Ripplinger (UC Davis)

✓ 9.00am K. Shivkumar (UCLA) '*Setting the scene for cardiac autonomic neuroscience: challenges and opportunities*'

✓ 9.45am Alex Gourine (UCL) '*Autonomic control of the heart during exercise*'

✓ 10.15am Beth Habecker (Oregon) '*Cardiac sympathetic nerves and immune modulation*'

✓ 10.45 am Ana Domingos (Oxford) '*Sympathetic activated macrophages*'

11.15am Coffee

Session two – Early-mid career fellows - ***Cell-cell communication in the heart***; Chairs: ✓ Julia Shanks (Auckland) & ✓ Jack Cheng (Central Florida)

✓ 11.50am Nadja Zeltner (Georgia) – '*Parasympathetic neurons derived from human pluripotent stem cells model human diseases and development*'

✓ 12.10pm Dan Li (Oxford) – '*Human iPSC derived cardiac myocytes and sympathetic neurons in CPVT*'

✓ 12.30pm Clement Menuet (Marseilles) – '*Central amplification of respiratory sinus arrhythmia: behavioural implications*'

✓ 12.50pm Annika Winbo (Auckland) – '*Neurocardiac aspects of the long QT syndrome*'

1.10pm Lunch

Session 3 - *The Bridge to Translation: model systems*; Chairs: ✓ Nadja Zeltner (Georgia, USA) & ✓ Marco Mongillo (Padova)

✓ 2.10pm Julian Paton (Auckland) – *'Mimicking cardiac autonomic variability for therapeutic effect'*

✓ 2.40pm Olu Ajjola (UCLA) – *'Translational & Clinical Aspects of Sympathetic Neural Remodeling after Cardiac Injury'*

✓ 3.10pm Johanna Montgomery (Auckland) – *'Neural plasticity and its role in atrial fibrillation'*

✓ 3.40pm Tania Zaglia (Padova) *'The myomiR-206 is a long-range effector coupling skeletal myocytes to cardiac autonomic neuron'*

✓ 4.10pm Neil Herring (Oxford) – *'Autonomic neuromodulators as potential biomarkers and therapeutic targets'*

4.30pm Tea

Session 4 - *Neuromodulation and target therapies to the heart*; Chairs: ✓ Jeff Ardell (UCLA) & ✓ Beth Habecker (Oregon)

✓ 5.00pm John Osborn (Minnesota) – *'The "Research Evaluating Vagal Excitation and Anatomical Links" (REVEAL) study'*

✓ 5.30pm Rajanikanth Vadigepallo (Thomas Jefferson). *'Neuromodulation network dynamics in the fast and slow lanes of the cardiac vagus'*

✓ 5.50pm Peter Hunter (Auckland) *'Mapping ANS connectivity in the SPARC project'*

✓ 6.10pm BIOS Health Neural Engineering (Cambridge) *'Using data-driven insights from the nervous system to build neural digital therapies - the next big trend in precision medicines'*

6.30pm Close

7.00pm Drinks and Dinner in Pitt Rivers Museum

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