



International Society for Autonomic Neuroscience

established 1995

www.autonomicneuroscience.info

ISAN Programme

Thursday 25th July 2024

Time	Session/ Activity	Venue
13:00 – 14:00	Welcome, Refreshments and Registration	Great Hall
14:00 – 15:10	Keynote: Andrew Allen, University of Melbourne, Australia Vital interactions: Exploring the relationships between respiratory and autonomic neural networks. Sponsor: Elsevier (with an introduction to Autonomic Neuroscience: Basic and Clinical)	Bramall
15:10 – 16:00	Poster Session 1 <u>Theme: Basic - Bioelectronic Medicine</u> Alberto Esteban-Linares – A microfabricated Parylene cuff electrode for branched nerve stimulation (P1) Dzifa Kwaku – Exploring Hemodynamic Responses to Electrical Stimulation of Renal Nerves: A Potential Therapeutic Approach for Drug-Resistant Hypertension (P2) <u>Theme: Basic - Cardiovascular</u> Aparaajita Bhatnaagar – Microgravity induced impairment of baroreflex sensitivity in rats is associated with sympathovagal imbalance but not with changes in structure of carotid artery (P5) Larissa Correa – Temporal profile of changes in cholinesterase activity induced by Ketamine-Xylazine anaesthesia (P6) Yu-Wen Dai – A study of Schwann cells in human and murine heart (P7) Mohanad Mahdi – Correlation of staging and risk factors with cardiovascular autonomic neuropathy in patients with type II diabetes mellitus (P8) Aline Barbosa Ribeiro – Galectin-3 Inhibitor Modulates Autonomic Nervous System (P9) Finbar Argus - A Computation Model of the Postganglionic Sympathetic Neuron for predicting drug response (P10)	Great Hall

Theme: Basic - Gut and metabolism

Tomoya Sawamura – Evidence that inhibitory regulation of oxytocinergic neurons to the spinal defecation center is manifested by hindpaw inflammatory pain in rats (P25)

Theme: Basic - Integrative Control

Joost Wagenaar – Towards sustainable scientific data management solutions in the age of scale and multi-modal data-integration (P29)

Mabelle Lin – Scaffold Mapping Tools for Mapping Data to Anatomical Scaffolds (P30)

Christian Reynolds – Exposure to a diet rich in linoleic acid promotes nociceptive hypersensitivity and elevated systemic blood pressure in both spinal-intact and spinalized rats (P31)

Deborah Romeu – Exploring the connections between C1 and liver-related DMV neurons involved in the autonomic control of glucose homeostasis (P32)

Karla Sampaio – Volatile and injectable anaesthetics effects on cardiorespiratory and biochemical parameters in rats: enlightening anaesthetic choice according to the outcome studied (P33)

15:30 – 16:00	Afternoon Refreshments	Great Hall
16:00 – 18:00	Symposium Presentations Session 1:	Bramall

Theme: Bioelectronic Medicine**Symposium Title: Bioelectronic Medicine**

*Chairs: Ellis Meng, University of Southern California and
Victor Pikov, Medipace Inc*

Daniel Chew, Galvani Bioelectronics - Recent studies on splenic nerve stimulation in pigs and humans (20 minutes)

Victor Pikov, Medipace - Inc preliminary data on sacral nerve stimulation in humans to treat colitis (20 minutes)

Jeff Ardell, University of California – Axonal modulation therapy for bioelectronic treatment of cardiovascular diseases (20 minutes)

Chris Wilson, Loma Linda University – Saving premature infants from sudden death using vagus nerve stimulation (20 minutes)

Jon Waataja, ReShape Lifesciences – Bioelectronics for treating diabetes (20 minutes)

Selected Abstracts to follow

Theme: Cardiovascular

Symposium Title: Central nervous control of blood pressure, brain blood flow, and cognitive health

Chairs: Emma Hart, University of Bristol and Sam Lucas, University of Birmingham

Alex Gourine, University College London – Regulation of arterial blood pressure by an intracranial baroreceptor (20 minutes)

Fiona McBryde, University of Auckland – Defending blood flow to the brain in hypertension, diabetes and ischemic stroke (20 minutes)

Emma Hart, University of Bristol – Cerebrovascular variants and the role of the selfish brain in hypertension (20 minutes)

Sam Lucas, University of Birmingham – Cerebral blood flow, aging and physiological stress (20 minutes)

Theme: Integrative control

Symposium Title: Brainstem integrator for viscerosensation and autonomic regulation

*Chairs: Andrew M Allen, University of Melbourne and
Julian FR Paton, University of Auckland*

Ambre Linossier, Aix-Marseille University – GABAergic neurons of the pre-Bötzinger complex regulate respiratory sinus arrhythmia and blood pressure via the autonomic nervous system (20 minutes)

Davi Moraes, University of São Paulo – Medullary parafacial neurons control sympathetic activity and vascular function in physiological and pathophysiological conditions (20 minutes)

Zoe Adams, University of Bristol – New insights into deep stimulation for correcting autonomic imbalance (20 minutes)

James P Fisher, University of Auckland – Sympathetic neurocirculatory responses to central chemoreflex activation in human hypertension (20 minutes)