



BioSciences

Delivering Excellence



DCU's School of Biotechnology 10th ANNUAL RESEARCH DAY

2018



In partnership with the National Institute for Cellular Biotechnology and the Biological Research Society

January 26th Lonsdale Building



8:30-9:00 Registration

9:00-9:15 Opening Remarks

Christine Loscher, Associate Dean of Research and Principal Investigator of the Immunomodulation Research Group
Donal O’Gorman, Interim Director of NICB and Leader of the 3U Diabetes Partnership
Daniel McPartlin, Chair of the Biological Research Society

9:15-10:10 Session 1

- Eoin Corcoran: N-Glycans and Notch 1 control of resident vascular stem cell transition to smooth muscle
Rajan Sambhavi Priyadarshini: The effect of continuous and intermittent electrical pulse stimulation on C 2 C 12 myotube mitochondrial respiration
Debby O’Reilly: The upregulation of CaV1.3 in castrate resistant prostate cancer (CRPC) drives hypoxic signalling and stem cell characteristics
Richard Lalor: Immunomodulatory effects of milk derived proteins
Shannon Nelson: Functional application of genomic variants to deliver personalized strategies for pancreatic cancer patients
Burcu Gunes: Enhancement of Anaerobic Digestion of Whiskey Distillery Co-Products
John Noone: A cocktail of dietary anti-oxidants and omega-3 fatty acids to prevent metabolic deterioration within the skeletal muscle induced by inactivity

10:10-10:45 Coffee Break and Poster Viewing

BioSciences: Sponsor Highlight: Dr John Synnott, Sales & Marketing Executive, Bio-Sciences Limited.

LENNOX: Sponsor Highlight: Dr Joseph Mackle, LENNOX

11:10-11:35 Session 2

- Ciara Larkin: Investigating Intercellular Communication in Chronic Itch
Yusuf Shukri Y Gusti: A comparison of the epigenetic profile of reprogrammed vascular smooth muscle cells versus stem cell-derived myogenic progeny in vitro
Niamh Bookey: Translation of DHFR2
Paola Drago: Investigation of the DHFR2 function in differentiated and undifferentiated cell lines
Darren Walsh: Investigating the role of folate in driving mitochondrial heteroplasmy
Molly Williams: Development of a novel biosensor
Susan Harmon: Endothelial release of membrane vesicles that harbour Notch and Hedgehog ligands as a POCT Predictor of Atherosclerosis

11:35-11:50 Session 3

- Kim Connick: How super is your superfood?
Denise Burtenshaw: Endothelial Cell Apoptosis and Resident Vascular Stem Cell Fate
Jenny Fitzgerald: Metabolomic and array-based biomarker approaches to understand human exposure to potent carcinogenic fresh water toxins
Roya Hakimjavadi: Cell Fate Mapping of Neointimal Cells Within Vascular Lesions Using Lineage Tracing in vivo and Epigenetic Profiling of Stem Cell-Derived Myogenic Progeny in vitro.

11:50-12:35 Session 4

- Gillian Casey: The role of PP2A in regulating endothelial junction proteins
Ivan Maguire: ToxiSense: A centrifugal microfluidic sensor for the simultaneous detection of the algal toxins; Microcystin-LR, Domoic Acid and Saxitoxin.
Fred Sheedy: Control of macrophage immunometabolic response during MTB infection

12:35-13:05 Industry Speaker: Patrick Ward, Research Analytical Chemist, Alltech. “Biochemical profiling of commercial selenised yeast”

13:05-14:00 Lunch Break and Poster Viewing

14:00-15:45 Session 5

- Alan Costello: Rolling Translation of Circularized Open Reading Frames; Fooling the Ribosome
Arun Decano: Escherichia coli ST131 genomes from Ireland and the UK highlight transposable element activity as a key driver of antibiotic resistance
Ricardo Valdés-Bango Curell: miRNA as endogenous sensors and genetic switches in CHO cells
Anne Trappe: The development of an Ultrafast Strong Cation Exchange Chromatography Method for the determination of charge variants of in house produced biosimilar monoclonal antibodies.
Anna Murphy: Immune modulatory properties of Fasciola hepatica Glycans
Kevin Kellner: Improving Biopharmaceutical Production of CHO Cells Using Targeted Genome Engineering Tools
Caroline Murphy: Metabolomic and array-based biomarker approaches to understand human exposure to potent carcinogenic fresh water toxins

15:45-16:15 Coffee Break and Poster Viewing

16:15-17:00 Keynote Speaker: Prof Lorraine O’Driscoll, School of Pharmacy & Pharmaceutical Sciences, Trinity College Dublin

17:00-17:15 Closing Remarks and Presentation of Awards
Anne Parle-McDermott, Associate Professor, Head of School of Biotechnology and Principal Investigator of the Nutritional Genomics Group

18:00-Late Reception in The Whitworth at the Porterhouse, Glasnevin