

Monday 3rd April 2017

Bus arrives

12:00PM

Session 1: Systems Biology - Trans Omics

1:00PM - 2:50PM Verdelho Room

Chair: Greg Neely

1:00 PM **Maxim Artyomov**

Systems immunology approach to understanding metabolic regulation of macrophage activation. *abs# 1*

1:30 PM **James Burchfield**

Not available at time of printing *abs# 2*

1:55 PM **Kim-Anh Le Cao**

Statistical integration of multiple `omics data sets *abs# 3*

2:15 PM **Gordon Smyth**

Finding the cell of origin for squamous lung cancer and other expression signature stories *abs# 4*

2:35 PM **Mykyta Artomov**

Landscape of rare mutations in hereditary cutaneous and ocular melanoma *abs# 5*

Afternoon Tea

2:50PM - 3:30PM Exhibition Suite

Session 2: Modelling and Visualisation

3:30PM - 5:00PM Verdelho Room

Chairs: Mark Larance & Melissa Davis

3:30 PM **Philip Poronnik**

The new multimedia and data display *abs# 6*

4:00 PM **Christopher Hammang**

Bringing molecules to life *abs# 7*

4:30 PM **Nicole S Bryce**

Chemical systems biology of the actin cytoskeleton *abs# 8*

4:45 PM **Vijay Rajagopal**

The Cardiac Cell Under the Mathematical Microscope *abs# 9*

Short Break

5:00PM - 5:45PM

Session 3: Plenary 1

5:45PM - 6:30PM Verdelho Room

Chair: Jenny Gamble

Robert Edgardo Gerszten

Not available at time of printing *abs# 10*

Dinner

6:30PM - 8:30PM West Terrace

Session 4: Systems Biology Poster Session with Wine and Trade Display

8:30PM - 10:30PM Exhibition Suite

Alexander V Predeus

GeneQuery globally connected networks of GEO transcriptional profiles show hypothesis generation potential and reveal that tocopherols rescue TREM2-associated microglial dysfunction *abs# 101*

Erica K Sloan

Cell deformability and metastasis: Stress

signaling challenges the links between cell mechanotype and invasion *abs# 102*

Erica Sloan

Chronic stress accelerates metastasis by increasing tumour cell invadopodia and remodelling the tumour microenvironment *abs# 103*

Jeremy ZR Han

Dissecting the multivariate signalling capacity of JNK in breast cancer *abs# 104*

Tuesday 4th April 2017

Session 5: Omics

8:30AM - 10:20AM Verdelho Room

Chairs: Sean Humphrey & Alexandre Cristino

- 8:30 AM **John O'Sullivan**
Not available at time of printing *abs# 11*
- 8:50 AM **Catherine Suter**
Roll over Weismann! Extracellular vesicles in the transgenerational transmission of environmental effects *abs# 12*
- 9:10 AM **Andrew Webb**
Not available at time of printing *abs# 13*
- 9:30 AM **Marc Wilkins**
Not available at time of printing *abs# 14*
- 9:50 AM **Mark Larance**
Mapping the Liver Interactome *abs# 15*
- 10:05 AM **Traude Beilharz**
Cordycepin Induces Widespread Lengthening Of Eukaryotic 3'UTRs. *abs# 16*

Morning Tea

10:20AM - 10:50AM Exhibition Suite

Session 6: Signalling Network in Medicine

10:50AM - 12:25PM Verdelho Room

Chairs: Jean Yang & Lan Nguyen

- 10:50 AM **Joseph Rosenbluh**
CRISPR loss of function screens for systematic studies of β -catenin driven cancers *abs# 17*
- 11:10 AM **Melissa Davis**
Not available at time of printing *abs# 18*
- 11:30 AM **Milica Ng**
Systems Pharmacology of Human Coagulation Network *abs# 19*
- 11:50 AM **Suresh Mathivanan**
Exosomes transfer oncogenic β -catenin and induce Wnt/ β -catenin signaling in the recipient cells *abs# 20*

12:10 PM **Jordan Hastings**
Predicting chemoresistance in lung adenocarcinoma through the analysis of drug induced signalling dynamics *abs# 21*

Bus arrives

12:00PM

Lunch

12:25PM - 2:00PM Exhibition Suite

Session 7 (jointly with Cell-Dev Biology): Stem Cells Reprogramming

2:00PM - 3:15PM Sauvignon Room

Chairs: Natasha Harvey & James Hudson

2:00 PM **Huck Hui Ng**
Systems biology of stem cells *abs# 22*

2:30 PM **Quenten Schwarz**
Not available at time of printing *abs# 23*

2:50 PM **Christine Wells**
Not available at time of printing *abs# 24*

3:10 PM **Pengyi Yang**
A dynamic multi-omic atlas of the transition from naive to primed pluripotency *abs# 25*

3:30 PM **Holly Holliday**
The Role of Helix-loop-helix Transcription Factors in Mammary Gland Lineage Commitment *abs# 26*

Afternoon Tea

3:45PM - 4:15PM Exhibition Suite

Session 8 (jointly with Cell-Dev Biology): Developmental Systems

4:15PM - 6:00PM Sauvignon Room

Chairs: Sharad Kumar & Sophie Wiszniak

4:15 PM **Mariann Bienz**
Assembly of Wnt signalosomes by Dishevelled *abs# 27*

4:45 PM **Melissa Little**
Regulation of cell movement, identity and turnover within the nephrogenic niche of the developing kidney. *abs# 28*

5:05 PM **Dagmar Wilhelm**
New regulators of mammalian sex determination and gonad development *abs# 29*

5:25 PM **Peter Currie**
Understanding in vivo muscle stem cells dynamics during growth and regeneration" *abs# 30*

5:45 PM **Andrew Cox**
Yap regulates anabolic glucose metabolism to support tissue growth *abs# 31*

Dinner

6:00PM - 8:00PM 1st Tee

Session 9: Plenary 2

8:00PM - 8:45PM Sauvignon Room

Chair: David James

Shinya Kuroda

Systems Biology of Insulin Action *abs# 32*

Wednesday 5th April 2017

Session 10: Autophagy Biology and Functions

8:30AM - 10:00AM Sauvignon Room

Chairs: Helena Richardson & Tim Sargeant

- 8:30 AM **Michael Lazarou**
Not available at time of printing *abs# 33*
- 8:50 AM **Donna Denton**
Autophagy-dependent programmed cell death in *Drosophila abs# 34*
- 9:10 AM **Lisa Lindqvist**
Autophagy induced during apoptosis - a means of dying silently *abs# 35*
- 9:30 AM **James Harris**
Not available at time of printing *abs# 36*
- 9:50 AM **Robert J Bryson-Richardson**
Autophagy in the pathogenesis and treatment of myofibrillar myopathy *abs# 37*

Bus departs

10:00AM

Morning Tea

10:05AM - 10:35AM Exhibition Suite

Session 11: Cell Death and Cancer Biology

10:35AM - 12:10PM Sauvignon Room

Chairs: Kum Kum Khanna & Iliia Voskoboinik

- 10:35 AM **John Silke**
Beware the MLKL, the jaws that bite: Uffish thoughts on the role of necroptosis and inflammation *abs# 38*
- 10:55 AM **Erinna Lee**
Targeting cell survival and proliferation pathways in cancer *abs# 39*
- 11:15 AM **Grant Dewson**
(Re)Defining the molecular control of apoptosis *abs# 40*
- 11:35 AM **Loretta Dorstyn**
A role for Caspase-2 in limiting aneuploidy and tumourigenesis. *abs# 41*
- 11:55 AM **Iliia Voskoboinik**
A sweet end to the tail: how killer cells are protected from their own weaponry *abs# 42*

Break

12:10PM - 12:20PM

Session 12: Poster Talks

12:20PM - 12:50PM Sauvignon Room

Chair: Grant Dewson

- 12:20 PM **Guang Yang**
Identifying novel regulatory roles of RagC GTPase and rapamycin on mTOR complex1 pathway *abs# 105*
- 12:25 PM **Alexey A Sergushichev**
Using metabolic networks for unbiased analysis of metabolic regulation across tumors *abs# 106*
- 12:30 PM **Yao Wang**
Synergy between anti-tropomyosin and anti-microtubule drugs reveals a role for actin in the mitotic spindle *abs# 107*
- 12:35 PM **Aur lie Cazet**
The paracrine Hedgehog-FGF axis mediates cancer stem cell plasticity in triple negative breast cancers *abs# 108*
- 12:40 PM **Brett Collins**
Molecular insights into membrane trafficking by the SNX27-retromer complex abs# 109
- 12:45 PM **Kate Poole**
Do force sensing ion channels influence melanoma migration? *abs# 110*

Lunch

12:50PM - 2:30PM Exhibition Suite

Session 13: Imaging Workshop 1

2:30PM - 4:05PM Sauvignon Room

Chairs: Jennifer Stow & Michael Samuel

- 2:30 PM **Nicolas Plachta**
Imaging how cells decide their fate, shape and position in the mouse embryo *abs# 43*
- 3:00 PM **Archa Fox**
Super-resolution imaging of paraspeckle components *abs# 44*
- 3:20 PM **Ben Hegarty**
Coherent Scientific Talk *abs# 45*
- 3:35 PM **Georg Ramm**
High Contrast Cellular Cryo-Tomography with the Volta Phase Plate *abs# 46*
- 3:50 PM **Elizabeth Hinde**
Imaging chromatin dynamics during the dna damage response *abs# 47*

Afternoon Tea

4:05PM - 4:35PM Exhibition Suite

Session 14: Imaging Workshop 2

4:35PM - 6:05PM Sauvignon Room

Chair: Yeesim Khew-Goodall & Frederic Meunier

- 4:35 PM **Jens Rettig**
Exocytosis and endocytosis at the immunological synapse of cytotoxic T lymphocytes *abs# 48*
- 5:05 PM **Katharina Gaus**
T cell receptor clustering – a mechanism of signal transduction *abs# 49*

5:25 PM **Paul Timpson**

Not available at time of printing *abs# 50*

5:45 PM **Ramon Martinez-Marmol**

Amyloid- β and tau differentially control lateral trapping of fyn in the dendritic shafts and spines *abs# 51*

Break

6:05PM - 6:15PM

Session 15: Plenary 3

6:15PM - 7:00PM Sauvignon Room

Chair: Sarah Russell

Diane Barber

Regulation by Intracellular pH Dynamics: From Molecules to Cell Behaviors *abs# 52*

Dinner

7:00PM - 8:30PM The Lovedale

Session 16: Poster Session and Trade Display

8:30PM - 10:30PM Sauvignon Room

Pirjo Apaja

Adhesion molecule and ubiquitin ligases modulate astrocyte protein MLC1 trafficking *abs# 111*

Christie A Bader

Luminescent transition metal complexes for cell imaging: ReZolve cellular processes. *abs# 112*

Angela Jeanes

Examining the role of Tmem2 and the extracellular matrix during early valve development in the mouse heart *abs# 113*

Guy Lyons

The importance of stem cell location to the maintenance of corneal epithelial homeostasis, UV radiation responses and transplantation *abs# 114*

Wei Ma

An Arp2/3 complex-mediated contractile actin coat on insulin granules facilitates secretion in beta cells *abs# 115*

Sangho Roh

Effect of microorganism extracts on the sphere formation and proliferation of murine skin-derived precursor cells *abs# 116*

Tim J Sargeant

Starvation regulates trafficking of amyloid precursor protein to the lysosome *abs# 117*

Hongyan WH Wang

An Intrinsic Mechanism Controls Reactivation of Neural Stem Cells *abs# 118*

Sophie Wiszniak

Neural crest cell and second heart field interactions orchestrate cardiac outflow tract development *abs# 119*

Thursday 6th April 2017

Session 17: Stem Cells & Development in Disease

8:30AM - 10:05AM Sauvignon Room

Chairs: Edwina McGlenn & Patrick Humbert

8:30 AM **Patrick Tam**

Wiring the lineage propensity of multipotent epiblast stem cells *abs# 53*

8:50 AM **Sally Dunwoodie**

Not available at time of printing *abs# 54*

9:10 AM **Josephine Bowles**

SOX30 is critical for male fertility in mice *abs# 55*

- 9:30 AM **Leonie Quinn**
Not available at time of printing *abs# 56*
- 9:50 AM **Nathan Palpant**
Unique methylation dynamics of open chromatin identify genes governing cell state *abs# 57*

Morning Tea

10:05AM - 10:35AM Exhibition Suite

Session 18: Cell Architecture and Mechanobiology

10:35AM - 12:20PM Sauvignon Room

Chairs: Maté Biro & Geraldine O'Neill

- 10:35 AM **Johanna Ivaska**
Mechanosensitive cell-matrix interactions in pluripotency, development and cancer *abs# 58*
- 11:05 AM **Alpha Yap**
Adherens junctions, force-sensing, and epithelial homeostasis *abs# 59*
- 11:25 AM **Ben Hogan**
Live imaging molecular changes in junctional tension upon VE-cadherin in zebrafish *abs# 60*
- 11:45 AM **Samantha Stehbens**
Fibroblast Growth Factor Receptor 2 Activating Mutations Potentiate Migration and Invasion in Endometrial Cancer *abs# 61*
- 12:05 PM **Timothy Saunders**
Geometric constraints induce cellular skew and apical-to-basal neighbour exchange in curved epithelial tissues *abs# 62*

Lunch

12:20PM - 2:00PM Exhibition Suite

Session 19: Membrane Proteins and Trafficking

2:00PM - 3:45PM Sauvignon Room

Chairs: Doug Brooks & Brett Collins

- 2:00 PM **Wanjin Hong**
Agrin as a diagnostic and therapeutic target of hepatocellular carcinoma *abs# 63*
- 2:30 PM **Robert Parton**
Cave exploration at the nanoscale: new insights into the formation and function of caveolae *abs# 64*
- 2:50 PM **Jennifer Stow**
Not available at time of printing *abs# 65*
- 3:10 PM **Justine Mintern**
Decoding Ubiquitin-Mediated Trafficking of Immunoreceptors. *abs# 66*
- 3:30 PM **Thomas Grewal**
Annexin A6 recruits TBC1D15 to regulate Rab7-dependent delivery of late endosomal cholesterol required for cell migration *abs# 67*

Afternoon Tea

3:45PM - 4:15PM Exhibition Suite

Session 20: Signalling and Molecular Physiology

4:15PM - 5:55PM Sauvignon Room

Chairs: Stuart Pitson & Philip Poronnik

- 4:15 PM **Krishnaraj Rajalingam**
Regulation of cell shape and migration by ubiquitination and phosphorylation *abs# 68*
- 4:45 PM **Janni Petersen**
Not available at time of printing *abs# 69*
- 5:05 PM **Fiona Pixley**
Targeting macrophage motility to prevent breast cancer invasion *abs# 70*
- 5:25 PM **Antonella Papa**
Role of PTEN catalytic activity in cancer *abs# 71*
- 5:45 PM **David R Croucher**
Dissecting multi-protein signalling complexes by Bimolecular Complementation Affinity Purification (BiCAP) *abs# 72*

Break

5:55PM - 6:15PM

Session 21: Plenary 4 - EMBO Keynote Lecture

6:15PM - 7:00PM Sauvignon Room

Chair: Sharad Kumar

Ivan Dikic

Not available at time of printing *abs# 73*

Dinner

7:00PM - 11:00PM Pergola