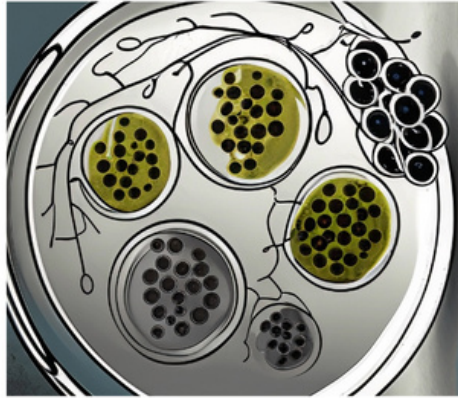




ASSCR Meeting 2024



Adelaide

ASSCR 2024



Stem Cell Research from Roots to Remedies

ADELAIDE, SA

11-13 November





ASSCR Program

Day 1

11 November

11:00 - 15:00

Registration open & poster hanging

12:30 - 13:55

SESSION I

Stem Cells & Cancer

Megan Munsie & Cameron McKnight

12:30 - 12:40

Opening Remarks &
Acknowledgement of Country

12:40 - 13:20

Keynote Speaker: Jane Visvader
Walter & Eliza Hall Institute of Medical Research, VIC
The breast stem cell hierarchy & cells of origin of cancer

13:20 - 13:40

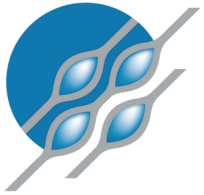
Invited Speaker: Winnie Kan
Centre for Cancer Biology, SA
*Characterisation of a new cytokine signalling
mechanism governing cell fate decisions*

13:40 - 13:55

Sumedha Negi
The University of Queensland
*HOPX associated molecular programs control cardiomyocyte cell
states underpinning cardiac structure and function*

13:55 - 14:30

Session Break



National
Stem Cell
Foundation
of Australia

14:30 - 15:45

SESSION II

Metcalf Awards

National Stem Cell Foundation of Australia

14:30 - 14:35

Introduction

Graeme Blackman, NSCFA Chairman

14:35 - 14:55

Invited Speaker: Mark Dawson

Peter MacCallum Cancer Centre, VIC

Cancer epigenetics: From mechanism to therapy

14:55 - 15:10

Anai Gonzalez-Cordero

Children's Medical Research Institute, NSW

2022 Metcalf Prize Winner

15:10 - 15:25

Ashley Ng (via Zoom)

Peter MacCallum Cancer Centre & Walter &
Eliza Hall Institute of Medical Research, VIC

2022 Metcalf Prize Winner

15:25 - 15:40

2024 Metcalf Award Winners

15:40 - 15:45

Updates & Conclusion

Graeme Mehegan (NSCFA General Manager) and Graeme Blackman

15:45 - 16:15

Afternoon Tea

16:15 - 17:25

SESSION III

Adult Stem Cells & Regeneration

Ritika Saxena & Agustin Cota Cota Coronado

16:15 - 16:35

Invited Speaker: Robin Hobbs

Hudson Institute of Medical Research, VIC

Molecular controls of male germline maintenance & regeneration

16:35 - 16:50



National
Stem Cell
Foundation
of Australia

Rising Star Award #1: Holly Voges

Murdoch Children's Research Institute, VIC

Human heart valve tissue from pluripotent stem cells for treatment of heart valve diseases

16:50 - 17:10

Invited Speaker: Natasha Harvey

Centre for Cancer Biology, SA

Defining the mechanisms underpinning hematopoietic potential in the lymphatic vasculature

17:10 - 17:25

Poster Teasers

P 01

Aswathi Gopalakrishnan, UQ

Understanding circadian disturbances in neurodegenerative diseases using hypothalamic organoids

P 02

Lucas Ferreira, MCRI

NR2F2/COUP-TFII haploinsufficiency may lead to 46,XX ovotesticular DSD through the impaired regulation of bipotential gonad factors

P 03

Sahel Amoozadeh, MCRI

AATD reshapes infection responses in human stem-cell models

P 04

Eva Chan, HIMR

Pathogenic E. coli infections: Studying interactions using human intestinal organoids

P 05

Adelene Chiam, UTas

Deconstructing the impacts of CLN3 disease on the blood-brain barrier

P 06

Andre Mckenzie, USyd

Characterisation of the purinergic P2X7 receptor in iPSC-derived astrocytes and microglia-like cells from ALS & AD donors

17:25 - 19:00

Welcome Reception & Poster Session

19:00 - LATE

Drinks for purchase at Wined Bar

- EMCR Social Event on-site

INVITE ONLY - NSCFA dinner starts at 19:30



ASSCR Program

Day 2

12 November

7:15 - 9:15

Registration open

7:45 - 8:50

SESSION IV

Electrifying Abstracts

Kevin Law & Cameron McKnight

7:45 - 7:50

Introduction

7:50 - 8:05

Hannah Leeson

The University of Queensland, QLD

Our moon's mission: Brain organoids as a platform to advance AAV9 gene therapy to clinical trials - A hereditary spastic paraplegia 56 case study

8:05 - 8:20

Christopher Bye

Florey Institute of Neuroscience & Mental Health, VIC

Re-assessment of clinically tested drugs using sporadic MND patient-derived motor neurons concords with clinical trial outcomes

8:20 - 8:35

Marion Turpin

Saiganci, SA

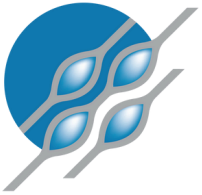
Nucleosome eviction at TET/TDG-targeted enhancers occurs independently of the removal of the chromatin mark Oxidized-Methylcytosine

8:35 - 8:50

Ellen Poon

The Chinese University of Hong Kong, HK

Using mature, mitochondria rich hiPSC-cardiomyocytes to study cardiotoxicity



8:50 - 9:05

Session Break

9:05 - 10:40

SESSION V

Epigenetics & Stem Cells

Agustin Cota Cota Coronado & Eva Chan

9:05 - 9:45

Int'l Speaker: Eran Meshorer
Alexander Silberman Institute of Life Sciences, ISR

Pluripotent stem cell models for Huntington's disease reveal genetic & epigenetic alterations

9:45 - 10:00

Oswaldo Contreras
Victor Chang Cardiac Research Institute, NSW

Time-resolved multi-omics illustrates the impact of DNA replication stress on chromatin integrity and pluripotency loss

10:00 - 10:20

Invited Speaker: Ryan Lister
Harry Perkins Institute of Medical Research, WA

Epigenome reconfiguration in reprogramming & development

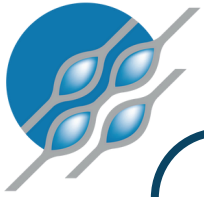
10:20 - 10:40

Invited Speaker: Marnie Blewitt
Walter & Eliza Hall Institute of Medical Research, VIC

Circadian gene expression & stable X chromosome inactivation: How the two processes are linked in differentiation

10:40 - 11:00

Morning Tea



11:00 - 12:20

SESSION VI

Stem Cells in Society & Industry

Jennifer Hollands & Nigel Kee

11:00 - 11:20

Invited Speaker: Alice Pebay

Centre for the Commercialisation of Regenerative Medicine, VIC

Commercialisation of regenerative medicine in Australia, can we progress the field?

11:20 - 11:40

International Society

ISCT

Cell & Gene Therapy

Invited ISCT ANZ Speaker: Simon Barry

Carina Biotech, SA

Taking a CAR-T for colorectal cancer from R&D to a phase 1/2 first in human trial: push through the trees and the woods appear!

11:40 - 12:20

Int'l Speaker: Ryan Conder

STEMCELL Technologies, CAN

Organoids - Thinking Outside the Dome

12:20 - 13:45

Lunch Break

Poster Session - Starts at 12:45

13:45 - 14:40

SESSION VII

Emerging Technologies

Luke Isbel & Adrienne Sullivan

13:45 - 14:05

Invited Speaker: Luciano Martelotto

Adelaide Centre for Epigenetics, SA

STAMP: Single-Cell Imaging Is The New Single Cell Sequencing

14:05 - 14:25

Invited Speaker: Kishan Dholakia

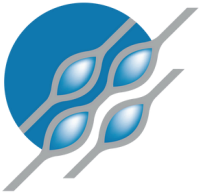
Centre of Light for Life at the University of Adelaide, SA

Shining light on life: Advanced optical imaging for stem cell research

14:25 - 14:40

Panel discussion with speakers

MC - Luke Isbel



14:40 - 15:00

Afternoon Tea

15:00 - 17:00

SESSION VIII

Stem Cell Systems Biology

Kevin Law & Hannah Leeson

15:00 - 15:45

ASSCR AGM

15:50 - 16:30

Int'l Speaker: Dinithi Sumanaweera

Wellcome Sanger Institute, UK

Aligning cell developmental trajectories

16:30 - 16:45

Sara Romanazzo

University of New South Wales, NSW

Controlled differentiation of induced pluripotent stem cells using a 3D bioprinted system mimicking the mechanical and topographical cues of the extracellular matrix

16:45 - 17:00

Invited Speaker: Kathrine Pillman

Centre for Cancer Biology, SA

Decoding neuroblastoma biology through adrenal differentiation models

17:30 Shuttle to Stem Stellar Mingle Night

18:15 Arrival at Howard Vineyard

22:00 Shuttle from Venue



ASSCR Program

Day 3

13 November

08:00 - 13:30

Registration open

9:00 - 10:35

SESSION IX

Stem Cells & Disease

Ritika Saxena & Isabelle de Luzy

9:00 - 9:20

Invited Speaker: David Elliott

Murdoch Children's Research Institute, VIC

Using pluripotent stem cell models to understand heart disease

9:20 - 9:35

Linxuan Jiang

The University Of Melbourne, VIC

Examining the neurogenic potential of enteric glia for the treatment of achalasia

9:35 - 9:55

Invited Speaker: Bronwen Connor

University of Auckland, NZ

Cell replacement therapy for Huntington's & Parkinson's disease using directly reprogrammed neural precursor cells

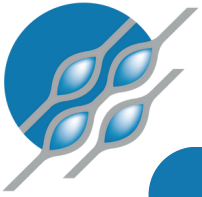
9:55 - 10:35

reNEW Invited Int'l Speaker:

Charles Murry



Broad Center for Regenerative Medicine & Stem Cell Research, Keck School of Medicine, University of Southern California, USA



10:35 - 10:50

Morning Tea

10:50 - 12:15

SESSION X

Basic Research in Stem Cells

Cameron McKnight & Rhiannon Werder

10:50 - 11:10

Invited Speaker: Lachlan Harris

QIMR Berghofer, QLD

Tools for studying neural & glioma stem cell quiescence

11:10 - 11:25

Giovanni Pietrogrande

Australian Institute for Bioengineering and Nanotechnology, QLD

A new immunocompetent brain organoid model to study demyelinating diseases

11:25 - 11:40

Chiara Pavan

Florey Institute of Neuroscience & Mental Health, VIC

A cloaked human stem cell-derived neural graft evades immune detection in humanised mice

11:40 - 11:55

Rising Star Award #2: **Simon Maksour**

University of Wollongong, NSW

Alzheimer's disease induced neurons bearing PSEN1 mutations exhibit reduced excitability



National
Stem Cell
Foundation
of Australia

11:55 - 12:15

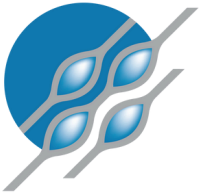
Invited Speaker: Cedric Bardy

South Australian Health & Medical Research Institute, SA

Modeling human brain disorders in vitro

12:15 - 13:25

Lunch Break



13:25 - 15:00

SESSION XI

Modelling Developmental Biology

Holly Voges & Simon Maksour

13:25 - 13:45

Invited Speaker: Guiying Nie

Royal Melbourne Institute of Technology, VIC

Trophoblast stem cells in understanding human placentation

13:45 - 14:05

Invited Speaker: Adrienne Sullivan

Adelaide Centre for Epigenetics, SA

Epigenetic remodelling in cell fate transitions during gastrulation

14:05 - 14:45

Int'l Speaker: Jun Wu

The University of Texas Southwestern Medical Center, USA

Engineering human embryo-like structures with stem cells

14:45 - 15:00

Announce ASSCR Prize Winners &
Concluding Comments

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STEM CELL &
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RESEARCH
INSTITUTE

Jeans
for Genes

Poster Session



Phenomics
Australia

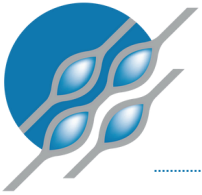
Enabling precision medicine

Supporter



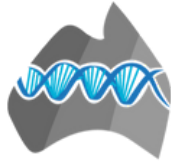
Commercializing
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