AUSTRALIAN CELL CYCLE MEETING (ACCM) 2019 PROGRAM

DAY 1, MONDAY, JUNE 17

09:00-10:45 **Arrival & Registration**
Powerhouse Museum – Target Theatre Foyer

Welcome by organisers and housekeeping

10:45-11:00 ***Tony Cesare*** *(Children's Medical Research Institute)*

Session I: Transcription, Replication, and the DNA damage response

Session Chair: ***Tamás Fischer*** *(Australian National University)*

11:00-11:25 **Gretchen Poortinga** (Peter MacCallum Cancer Centre)
BET Protein Inhibition Amplifies Targeted-Ribosomal DNA Damage and Provides a Synergistic Strategy for Treating AML

11:25-11:40 **Tobias Williams** (Peter MacCallum Cancer Centre)
A CRISPR-Based Kinome Screen for Factors Involved in the Nuclear Export of mRNA Identifies a Checkpoint Linking mRNA Export Competence with Replication Stress

11:40-11:55 **Matt Jones** (Memorial Sloan Kettering Cancer Center)
Human DDK Drives Completion of DNA Replication by Alleviating Fork Arrest

11:55-12:10 **Donna Whelan** (Latrobe University)
Spatiotemporal Mapping of Repair of Individual Replication Fork Regression and Double Strand Break Induction Using Super Resolution Microscopy.

12:10-12:25 **Lisane Spenkelink** (Wollongong University)
Single-Molecule Visualisation of S. Cerevisiae DNA Replication Reveals Dynamic Interaction of Mrc1 with the Replisome

Poster Fast-Forward #1

Session Chair: ***Andrew Burgess*** *(ANZAC Research Institute)*

12:25-12:35 Selected three minute poster presentations

Poster 27 **Jane Reid** (The John Curtin School of Medical Research)
Lonely Single-Stranded DNA seeks RNA

Poster 20 **Kamila Marzec** (The ANZAC Research Institute)
SnapShot: S-Phase Entry and Exit.

Poster 7 **Katherine A. Giles** (Children's Medical Research Institute)
A Role for BRG1 in Chromatin Regulation, Transcription and the Cell Cycle

Sponsor talk

12:35-12:45 **Gavin Symonds** (ZEISS Research Microscopy Solutions)
High Speed Super-Resolution Imaging Using Quadratic Lattice SIM Microscopy

12:45-14:15 Lunch

Session II: Cell Polarity and Signalling

Session Chair: ***Patrick Humbert*** *(Latrobe University)*

14:15-14:40 **Helena Richardson** (La Trobe University)
Using Drosophila to Identify Novel Cancer-Causing Genes

14:40-15:05 **John Lock** (University of New South Wales)
Reticular Adhesions are a Distinct Class of Cell-Matrix Adhesions that Mediate Attachment during Mitosis

15:05-15:20 **David Croucher** (Garvan Institute of Medical Research)
Multiplexed Analysis of Drug-Induced Signalling Dynamics Coupled to Live-Cell Imaging Identifies Causal Effectors of Platinum Resistance in Lung Adenocarcinoma

15:20-15:45 **Nikki Verrills** (University of Newcastle)
The Functional Role of Protein Phosphatase 2A-B55α in Embryonic Development and Breast Cancer

Poster Fast-Forward #2

Session Chair: ***Andrew Burgess*** *(ANZAC Research Institute)*

15:45-15:55 Selected three minute poster presentations

Poster 8 **Astrid Glaser** (St. Vincent's Institute of Medical Research)
Modifying DNA Repair Pathway Choice for Improved Genome Editing Efficiency

Poster 5 **Cecilia Chang** (The Westmead Institute for Medical Research)
Improving the Radiosensitivity of High-Grade Gliomas by Targeting DNA Repair Pathways via Modulation of Glucose Metabolism

Poster 23 **Chris Nelson** (The Children's Medical Research Institute)
Identification of the Mitotic and DNA Repair Kinase Polo-like Kinase 1 as a Potential Target of EYA4 Phosphatase Activity

15:55-16:25 Coffee/tea

KEYNOTE I – DNA Repair

Chair: ***Andrew Deans*** *(St. Vincent's Institute of Medical Research)*

16:25-17:10 **Agata Smogorzewska** (The Rockefeller University)
Ubiquitin Shuttle Proteins and the Stress Response at the Replication Fork

17:10-19:10 Poster session with cheese & wine

19:10 Welcome Dinner and Drinks
Transport Exhibition Room, Powerhouse Museum

DAY 2, TUESDAY, JUNE 18

Session III: Telomeres and the DNA damage response

Session Chair: ***Tracy Bryan*** *(Children's Medical Research Institute)*

09:00-09:15 **Fiona Yang** (Children's Medical Research Institute)
ZNF827 is a Novel Single-Stranded DNA Binding Protein Involved in the DNA damage Response

09:15-09:30 **Emma Bolderson** (Queensland University of Technology)
The Role of BANF1 in the Repair of Oxidative DNA damage

09:30-09:45 **Lee Wong** (Monash University)
An Investigation of Molecular Mechanisms Linked to ALTernative Lengthening of Telomeres in Cancers

09:45-10:00 **Bishnu Paudel** (Wollongong University)
A Mechanism for the Extension and Unfolding of Parallel Telomeric G-quadruplexes by Human Telomerase at Single-Molecule Resolution

10:00-10:30 Coffee/tea

KEYNOTE II – Telomeres

Chair: ***Hilda Pickett*** *(Children's Medical Research Institute)*

10:30-11:15 **Agnel Sfeir** (Skirball Institute of Biomolecular Medicine, New York University)
Investigating the Regulation and Dynamics of Telomerase in Human Cells

Session IV: Cell Division and Death

Session Chair: ***Dominic Ng*** *(University of Queensland)*

11:15-11:40 **Sharad Kumar** (University of South Australia)
Mechanisms of Tumour Suppression by Caspase-2

11:40-11:55 **Antony Braithwaite** (University of Otago)
YB-1: Master Regulator of Cytokinesis

11:55-12:20 **Paul Clarke** (The University of Queensland Diamantina Institute)
Control of Cell Death during Mitosis

12:20-13:40 Lunch

Session V: Immune Response and Genomic Instability

Session Chair: ***Kum Kum Khanna*** *(QIMR Berghoffer)*

13:40-14:05 **Chris Jolly** (Lowy Cancer Centre, University of New South Wales)
The Innate Antiviral DNA Repair Enzyme SAMHD1 Contributes to Immunoglobulin Diversification During Immune Responses

14:05-14:30 **Jörg Heierhorst** (St. Vincent's Institute of Medical Research)
DYNLL1 is Required for Signal-Specific NF-κB Pathway Activation and TLR4-induced Antibody Responses *in vivo*

14:30-14:45 **Joe Nassour** (Salk Institute for Biological Studies)
Autophagic Cell Death Restricts Chromosomal Instability During Replicative Crisis

14:45-15:00 **Makoto Hayashi** (The Hakubi Center for Advanced Research, Kyoto University)
A Single Defined Sister Chromatid Fusion Destabilizes Cell Cycle Through Micronuclei Formation

15:00-15:25 **Benjamin Kile** (Monash University)
Mitochondrial Dynamics, Damage, mtDNA and Inflammatory Signalling

15:25-15:55 Coffee/tea

Session VI: Big Data

Session Chair: ***Juliet French*** *(QIMR Berghoffer)*

15:55-16:20 **Mark Cowley** (Children's Cancer Institute)
What can Precision Cancer Genomics teach us about the Cell Cycle and DNA Repair Mechanisms?

16:20-16:35 **Roger Reddel** (Children's Medical Research Institute)
Development of a Proteomic Classifier to Identify Telomere Maintenance Mechanisms in Human Cancer

16:35-17:00 **Tony Papenfuss** (WEHI, Peter MacCallum Cancer Centre)
Multi-Regional and Serial Sampling of Melanoma Identifies Recurrent Patterns of Genomic Instability that Stratify Patient Survival

KEYNOTE III – DNA replication stress

Chair: ***Liz Caldon*** *(Garvan Institute of Medical Research)*

17:00-17:45 **Karlene Cimprich** (Stanford University School of Medicine)
The Causes and Consequences of Replication Stress

17:45-19:15 Drinks, Poster viewing

19:15-19:30 Transport to the Opera House for the Conference Dinner

19:30-22:30 Conference Dinner, Opera Bar

22:30-22:45 Transport to Powerhouse from Opera Bar

DAY 3, WEDNESDAY, JUNE 19

Session VII: Clinical Targeting of the DNA damage response

Session Chair: ***Eric Hau*** *(Sydney West Radiation Oncology Network)*

09:00-09:25 **Olga Martin** (Peter MacCallum Cancer Centre)
Cancer Radiotherapy: Understanding the Price of Tumour Eradication

09:25-09:40 **Elaine Sanij** (Peter MacCallum Cancer Centre)
Targeting Nucleolar DNA Damage Response as a Therapeutic Strategy for High-Grade Serous Ovarian Cancer

09:40-09:55 **Heather Murray** (Hunter Medical Research Institute)
Targeting DNA-PK in Acute Myeloid Leukaemia (AML)

09:55-10:20 **Helen Rizos** (Macquarie University and Melanoma Institute Australia)
Predicting Immunotherapy Response in Melanoma

10:20-10:50 Coffee/tea

KEYNOTE IV – Clinical targeting of genome instability in cancer

Chair: ***Harriet Gee*** *(Sydney West Radiation Oncology Network)*

10:50-11:35 **Gerry Hanna** (Peter MacCallum Cancer Centre)
Bringing Drug and Radiotherapy Combinations to the Clinic: from Bench to 'Linac'

Session VIII: Clinical Targeting of the Cell Cycle

Session Chair: ***Kate Mahon*** *(Chris O'Brien Lifehouse)*

11:35-11:50 **Peter Gunning** (University of New South Wales)
Anti-Tropomyosin Drugs Prevent Rescue of Vincristine-Induced Mitotic Spindle Defects

11:50-12:05 **Junran Zhang** (The Ohio State University)
Identifying Biomarkers Predictive of Response to Inhibitors Targeting Cell Cycle Checkpoint proteins ATR and CHK1

12:05-12:20 **Karen Sheppard** (Peter MacCallum Cancer Centre)
CDK4/6 inhibitors: Targeting the Cell Cycle and the Spliceosome

12:20-12:35 **Sarah Alexandrou** (Garvan Institute of Medical Research)
Disrupted DNA Repair Response Drives Resistance to CDK4/6 Inhibition in Breast Cancer

Closing Remarks

12:35-12:45 ***Liz Caldon*** *(Garvan Institute of Medical Research)*

12:45 Lunch and departure