

THURSDAY, 13th JULY 2017**Registration**

Bio21 Atrium

8:15 AM – 8:45 AM *Tea & coffee available for purchase from Avist Café in Bio21 Atrium***Opening Address**

Bio21 Auditorium

8:45 AM – 9:00 AM

8:45 – 8:50 **Symposium Chairs: Mike Griffin & Pierre Scotney**8:50 – 9:00 **Bio21 Institute Director: Professor Michael Parker****Science Session 1**

Bio21 Auditorium

9:00 AM – 10:40 AM

Keynote Speaker 1

Chair: Sarah Atkinson

9:00 – 09:40

KEYNOTE SPEAKER: Dr Natalie Borg

The evolution of a structural biologist

*abs#1***Student Speakers**

Chairs: Toby Dite, Riley Metcalfe

9:40 – 10:00

Student Speaker 1: Jonathan Bernardini

Parkin-mediated ubiquitination of the pro-apoptotic protein Bak

abs#2

10:00 – 10:20

Student Speaker 2: Jessica BridgfordAn accumulation of unfolded polyubiquitinated proteins in the malaria parasite *Plasmodium falciparum* underpins the activity of the first-line antimalarial drug artemisinin*abs#3*

10:20 – 10:40

Student Speaker 3: Joshua Hardy

Using cryoEM to understand the assembly of circoviruses

*abs#4***Poster Session A with Morning Tea**

Bio21 Atrium

10:40 AM – 11:30 AM Please refer to the poster listing on page 10

Science Session 2 Bio21 Auditorium

11:30 AM – 1:10 PM

Keynote Speaker 2

Chair: Jon Oakhill

11:30 – 12:10 **KEYNOTE SPEAKER: A/Prof James Murphy**
Dead enzymes, cell death and serendipity *abs#5*

Student Speakers

Chairs: Pramod Subedi, Sebastian Broendum

12:10 – 12:30 **Student Speaker 4: Angus Cowan**
The Structure of Bak in Complex with Lipids: Implications for Pore Formation *abs#6*

12:30 – 12:50 **Student Speaker 5: Carina Joe**
Recombinant VLPs as Superior Drug Candidates *abs#7*

12:50 – 1:10 **Student Speaker 6: Steven Heaton**
DDX3X modulates antiviral cytokine expression via the exportin-1 pathway *abs#8*

Poster Session B and Lunch Bio21 Atrium

1:10 PM – 2:30 PM Please refer to the poster listing on page 11

Career Q&A Panel Bio21 Auditorium

2:30 PM – 3:40 PM

Chair: Pierre Scotney

2:30 – 3:10 **CAREER PERSPECTIVE: Dr Karen Scalzo**
Translational research – research scientist to clinical scientist

3:10 – 3:40 **Panel Discussion with Keynote Speakers**

Awards & Closing Remarks Bio21 Auditorium

3:40 PM – 4:00 PM

Symposium Chairs: Mike Griffin & Pierre Scotney

Social Hour (Mixer, Drinks & Nibbles) Bio21 Atrium

4:00 PM – 5:00 PM

POSTER LISTING

POSTER SESSION A - Even Abstract Numbers - 10:40 AM – 11:30 AM)

Bio21 Atrium

Mansura Akter

Developing small molecule inhibitors of the AMA1/RON2 interaction as new antimalarial agents *abs#10*

Sushma Anand

NEDD4 Attenuates exosome secretion in colorectal cancer cells *abs#12*

Mohd Ishtiaq Anasir

Structural and functional insights into poxviral Bcl-2 proteins FPV039 *abs#14*

James Anderson

Synergy in molecular machines: The M18 aspartyl aminopeptidase of *Plasmodium falciparum* *abs#16*

Suresh Banjara

Grouper Iridovirus GIV66 is a Bcl-2 protein that inhibits apoptosis by exclusively sequestering Bim *abs#18*

Sebastian Broendum

Re-targeting a bacterial assassin: Engineering PlyC specificity using directed evolution *abs#20*

Patricia Casas

Characterization of sigma anti-sigma complexes central to the iron homeostasis in *Pseudomonas aeruginosa* *abs#22*

Li-Jin Chan

Monoclonal antibodies to *Plasmodium vivax* adhesin PvRBP2b inhibits its interaction with reticulocyte receptor transferrin receptor 1 *abs#24*

Steffi Cheung

Three in one bullets: Small molecule inhibitors of the beta-common receptor *abs#26*

Lap-Hing Ching

The relevance of SMAD4 expression in regulation of breast cancer metastasis *abs#28*

Rhys Colson

Structural and functional analysis of let-7 and lsy-6 miRNA cofactor, the TRIM-NHL protein NHL-2 *abs#30*

Katherine Davies

Examining the role of the brace region in Mixed Lineage Kinase domain-Like protein (MLKL) oligomerisation and activation *abs#32*

Toby Dite

Structural and functional characterisation of a novel AMPK inhibitor *abs#34*

Laura Fielden

The *Coxiella burnetii* effector protein MceA targets the mitochondria during infection *abs#36*

Chethana Galketiya

Targeting cell survival and proliferation pathways in cancer using cell penetrating peptides *abs#38*

Monica Goney

Turning on inhibin production - a switch from homodimerisation to heterodimerisation *abs#40*

Chloe Hobbs

Determining key factors of malignant melanoma cell survival and BRAF inhibitor resistance *abs#42*

Ivan How

Understanding the role of the Scribble PDZ domains in cell polarity regulation *abs#44*

Jie Huang

Structural determinants of preferential heterodimerisation of human DBHS family proteins *abs#46*

Bronte Johnstone	Designing a magic bullet oncotxin: Manipulating the Lewis antigen specificity of lectinolysin to target Lewis y-associated tumours	abs#48
Joe Kaczmarek	Introducing catalysis into non-catalytic protein folds: How nature does it	abs#50
Yilin Kang	Sengers syndrome associated mitochondrial acylglycerol kinase, is a subunit of the human TIM22 protein import complex	abs#52
Bomai Kerenga	TaD5 – A defensin from Zea maize demonstrates antifungal activity at high salt concentrations	abs#54
Daniel La Porta	Functional and structural analysis of the zinc efflux protein CzcD	abs#56
Sarah Le	The TAFs of TFIID bind and rearrange the topology of a TATA-less promoter independent of TBP	abs#58
Mark Xiang Li	BAK a6 permits activation by BH3-only proteins and homo-oligomerization via the canonical hydrophobic groove	abs#60

POSTER SESSION B – Odd Abstract Numbers - (1:10 PM – 2:40 PM)

Bio21 Atrium

Alan John	Engineering a C-mannosylation pathway into <i>Pichia pastoris</i>	abs#9
Nicholas Liao	Inhibition of JAK signaling by SOCS1	abs#11
Tess Malcolm	Characterisation of the potential anti-malarial drug targets, Pv-M1 and Pv-M17, from <i>Plasmodium vivax</i>	abs#13
Alexandra Mangion	Structure, function and inhibition of DHPS1 from <i>Arabidopsis thaliana</i>	abs#15
Jasmina Markulić	Structure reveals molecular basis for inhibitor binding to Alzheimer's and Parkinson's disease risk factor	abs#17
Luke McAloon	Determining the physiological relevance of the Beclin-1:pro-survival Bcl-2 protein interaction	abs#19
Joey McGregor	Characterisation of E2-DHBVS virus-like particles as a hepatitis C virus vaccine candidate	abs#21
Riley Metcalfe	Identifying the mechanisms underpinning IL-11 signalling antagonism by IL-11 Mutien	abs#23
Aylwin Ong	Characterization of the interaction mode between SFPQ and the MALAT1 long non-coding RNA	abs#25
Ashley Ovens	Structural and functional characterisation of the AMP-Activated Protein Kinase (AMPK) γ 2 and γ 3 subunit isoforms	abs#27
Pramod Subedi	Elucidation of novel Dsb-like Scs pathways in <i>Salmonella</i> and their role in copper tolerance	abs#29
Monisha Samuel	Role of milk-derived exosomes in cross-kingdom regulation	abs#31
Emily Selig	Small heat-shock proteins: How big things come in small packages	abs#33

Neelam Shah	
Activation of RIG-I by Hairpin RNA	<i>abs#35</i>
Mwilye Sikanyika	
Investigation of the roles of cytoplasmic enzymes in zinc toxicity to the pathogenic organism <i>Streptococcus pneumoniae</i>	<i>abs#37</i>
Niccolay Soler	
Biophysical characterisation of the TSR domains of BAI1 protein	<i>abs#39</i>
Christian Spehar	
Structure-function relationship between the C-terminal domains of CzcD	<i>abs#41</i>
Bradley Spicer	
Structural snapshots of Membrane Attack Complex: a new paradigm for pore forming protein assembly	<i>abs#43</i>
Brendan Stevenson	
Early stage drug discovery in the Australian Cancer Research Foundation Rational Drug Discovery Centre	<i>abs#45</i>
Bryce Stewart	
Scribble PDZ domain interactions with p22-phox and MCC	<i>abs#47</i>
Chathura Suraweera	
Structural and functional basis of the interaction of Bid with an anti-apoptotic protein from African swine fever virus	<i>abs#49</i>
Melissa Sweeney	
Characterisation of the innate immune ubiquitin E3 ligase RNF135	<i>abs#51</i>
Janet Tran	
Structural insight into the unconventional secretion of Fibroblast Growth Factor 2	<i>abs#53</i>
Ashwinie Ukuwela	
A robust assay for the enzyme activity of glutaredoxins using a metal-based probe	<i>abs#55</i>
Tasneem Vaid	
Probing ligand binding modes and allostereism at ultrastable α 1-adrenergic receptors with NMR	<i>abs#57</i>
Tessa Young	
The amyloid precursor protein and copper ions	<i>abs#59</i>
