

PROGRAM

Monday 11th May 2015

Registration

3:00pm - 5:30pm

Welcome Reception

5:30pm - 7:00pm

Tuesday 12th May 2015

Welcome Address

9:00am - 9:30am

Chairs: Michelle Dunstone & Ilia Voskoboinik

Session 1: Plenary Session

9:30am - 10:30am

Chairs: Michelle Dunstone

9:30 AM **Johannes van Strijp**
Immune evasion by staphylococcal toxins *abs# 1*

Morning Tea

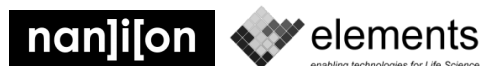
10:30am - 11:00am

Session 2: Applications of electrophysiology of pore forming proteins

11:00am - 12:30pm

Chair: James Whisstock

Session sponsored by:



11:00 AM **Mathias Winterhalter**
Quantification of antibiotic uptake across bacterial cell walls *abs# 2*

11:30 AM **Jan Behrends**
High-resolution electrophysiological analysis of pore-forming proteins using parallel lipid bilayer microarrays *abs# 3*

11:50 AM **Roland Benz**
Structure and function of cell wall channels of mycolic acid containing members of the actinomycetes *abs# 4*

12:10 PM **Joseph Robertson**
Pore-forming proteins: Simultaneous structure-function methods & potential applications *abs# 5*

Lunch

12:30pm - 1:30pm

Session 3: New approaches to study pore forming proteins

1:30pm - 3:00pm

Chair: Ian Smith

1:30 PM **Doryen Bubeck**
Structural analysis of the complement membrane attack complex by Cryo-EM and single particle analysis *abs# 6*

2:00 PM **Bryan Krantz**
Allosteric and stereoselective clamps govern protein translocation through the anthrax toxin protective antigen channel *abs# 7*

2:20 PM **Michael Senior**
Imaging the assembly of perfringolysin O *abs# 8*

2:40 PM **Bart Hoogenboom**
Stepwise visualization of membrane pore formation by suliyisin, a bacterial cholesterol-dependent cytolysin *abs# 9*

Afternoon Tea & Poster Session

3:00pm - 5:00pm, Abstract numbers 34 – 51, *includes wine and cheese service*

Wednesday 13th May 2015

Session 4: Structural and mechanistic insights into pore forming proteins

9:00am - 10:30am

Chair: Doryen Bubeck

- 9:00 AM **Hong Zhou**
Atomic model of the anthrax toxin pore by cryo electron microscopy *abs# 10*
- 9:30 AM **Cyril Reboul**
A new model for pore formation by cholesterol-dependent cytolysins *abs# 11*
- 9:50 AM **Natalya Dudkina**
Stepwise visualisation of membrane pore formation by suliyisin, a cholesterol dependent cytolysin *abs# 12*
- 10:10 AM **Andrew Ellisdon**
Stonefish toxin defines an extensive new branch of the perforin-like protein superfamily *abs# 13*

Morning Tea

10:30am - 11:00am

Session 5: Macromolecular structure and assembly

11:00am - 12:40pm

Chair: Hong Zhou

- 11:00 AM **Stefan Raunser**
How to kill a mocking bug - Structural Insights into Tc toxin complex action *abs# 14*
- 11:30 AM **Michael Parker**
Cholesterol-dependent cytolysins: From water-soluble state to membrane pore *abs# 15*
- 11:50 AM **Bradley Spicer**
Defining a site important for zinc inducible polyC9 formation *abs# 16*
- 12:10 PM **Natalya Lukyanova**
The trajectory of β -sheet opening during MACPF pore formation *abs# 17*

Lunch

12:40pm - 1:40pm

Session 6: Hot topics and new frontiers

1:40pm - 3:00pm

Chair: Bryan Krantz

- 1:30 PM **Paul Conroy**
Structural basis for Ca^{2+} -mediated interaction of the perforin C2 domain *abs# 18*
- 1:50 PM **Amelia Brennan**
A novel role for Ca^{2+} in cytotoxic lymphocyte perforin proteostasis *abs# 19*
- 2:10 PM **M.A. Henstridge**
The Membrane Attack Complex/ Perforin-like protein Torso-like controls growth factor secretion to pattern the early *Drosophila* embryo *abs# 20*

2:30 PM **Nadja Hellmann**
Dual effect of P2X-inhibitors on lysis induced by α -toxin from *S.aureus* *abs# 21*

Afternoon Tea & Poster Session

3:00pm - 5:00pm, Abstract numbers 34 - 51, *includes wine and cheese service*

Thursday 14th May 2015

Session 7: Pore forming proteins in infection, immunity and venom

9:00am - 10:30am

Chair: Andrew Ellisdon

- 9:00 AM **Victor Torres**
Dissecting the mechanism by which *Staphylococcus aureus* leukocidins target and kill host leukocytes *abs# 22*
- 9:30 AM **Emmanuel Jover**
The staphylococcal Panton and Valentine Leukocidin and γ -haemolysin HlgC/HlgB share C5aR as a receptor, but operate diverse intracellular activities in human polymorphonuclear neutrophils *abs# 23*
- 9:50 AM **Michael Jennings**
The cholesterol-dependent cytolysis, pneumolysin and streptolysin O, require binding to red blood cell glycans for hemolytic activity *abs# 24*
- 10:10 AM **Gintaras Valincius**
Activity of pore-forming cholesterol dependent cytolysins assessed by dielectric damage of tethered bilayer membranes *abs# 25*

Morning Tea

10:30am - 11:00am

Session 8: Clinical immunology and microbiology

11:00am - 12:30pm

Chair: Salvatore Valitutti

- 11:00 AM **Juliane Bubeck Wardenburg**
Staphylococcus aureus alpha-toxin: Complexities of the host-pathogen interaction *abs# 26*
- 11:30 AM **Matthias Husmann**
Nutrient sensor GCN2 confers tolerance to bacterial pore forming toxins *abs# 27*
- 11:50 AM **Tamara Reyes-Robles**
A dominant-negative approach to combat *Staphylococcus aureus* pathogenesis *abs# 28*
- 12:10 PM **Joseph Trapani**
Failed CTL/NK cell killing and cytokine hyper-secretion are directly linked through prolonged synapse time *abs# 29*

Lunch

12:30pm - 1:30pm

Session 9: Cell biology and pore forming proteins

1:30pm - 3:00pm

Chair: Iliia Voskoboinik

- 1:30 PM **Matthew Pipkin**
Unraveling how chromatin structure regulates cytotoxic T lymphocyte differentiation *abs# 30*

- 2:00 PM **Stephanie Seveau**
Plasma membrane attack by cholesterol-dependent cytolysins stimulates the internalization of the CDC-producing pathogen *abs# 31*
- 2:20 PM **Imran House**
Heterozygosity for the common perforin mutation, A91V, impairs the cytotoxicity of primary natural killer cells from healthy individuals *abs# 32*
- 2:40 PM **Jonathan Richardson**
Dual roles for a novel pore-forming peptide toxin in the human fungal pathogen *Candida albicans abs# 33*

Afternoon Tea & Poster Prizes

3:00pm - 4:00pm

Poster prizes awarded, *includes wine and cheese service*

Conference Dinner

6:30pm - 10:30pm

Dinner location: Refettorio di San Niccolo

Piazza Niccolo Cardinale, 6, Prato, Italy

Approximately 800 meter walk (10 mins) from Monash University.

The dinner will commence with a short tour of the Refettorio followed by welcome drinks and canapés, a three course meal and drinks.