## **QRW Programme**

## **Plant-Microbe Interactions**

Sunday 3 – Monday 4 September, 2017 Rydges Hotel, Queenstown, New Zealand

| Saturday 2 September |  |                     |  |
|----------------------|--|---------------------|--|
| Time                 | Details  | Location            |  |
| 7.00pm - 9.00pm      | Dinner at Coalfire Barbeque Bar for invited speakers | 15 Ballarat St, The |  |
|                      |  | Mall, Queenstown    |  |

| Sunday 3 September  |  |               |  |  |
|---|--|---------------|--|--|
| Time  | Details  | Location      |  |  |
| 8.30am - 8.35am   | Welcome: Barry Scott & Peter Solomon Massey University & Australian National University  | Clancy's Room |  |  |
|   | Plant-Fungal Interactions  |               |  |  |
| Chaired by Carl Mesarich (Massey University)                              |  |               |  |  |
| 8.35am - 9.05am   | Sarah Gurr (P1) University of Exeter, UK   | Clancy's Room |  |  |
|   | The global movement of plant pests and pathogens: implications for food security   |               |  |  |
| 9.05am - 9.35am   | Günther Doehlemann (P2) University of Köln, Germany Modulation of cysteine proteases in the maize – Ustilago maydis interaction  | Clancy's Room |  |  |
| 9.35am - 9.55am   | Jonathan Anderson (P3)  CSIRO Agriculture and Food, Australia  The broad host range fungal pathogen Rhizoctonia solani adjusts its infection strategy depending on the host but can be kept at bay by ethylene and phytoalexin mediated defences | Clancy's Room |  |  |
| 9.55am – 10.15am  | Carolyn Young (P4) The Noble Research Institute, USA Taming a root rot pathogen: Integration of geospatial technologies for disease management   | Clancy's Room |  |  |
| 10.15am - 10.50am   | Morning Tea  | Trades Area   |  |  |
| Plant-Bacterial Interactions Chaired by Honour McCann (Massey University) |  |               |  |  |
| 10.50am - 11.25am   | James Alfano (P5) University of Nebraska, USA Pseudomonas syringae pathogenesis of plants: effectors and immunity  | Clancy's Room |  |  |
| 11.25am - 11.50am   | Nijat Imin (P6) University of Auckland, NZ Peptide hormones: positive and negative regulators of root and nodule development in response to nitrogen availability  | Clancy's Room |  |  |

| 11 F0ama 12 10mm    | John Cullings (D7)   | Clanavia Dage    |
|---------------------|--|------------------|
| 11.50am - 12.10pm   | John Sullivan (P7) sponsored by Scimed   | Clancy's Room    |
|                     | University of Otago, NZ  |                  |
|                     | Symbiotic phenotypes of exopolysaccharide mutants of                                   |                  |
|                     | Mesorhizobium loti Indicate that the host plant differentially                         |                  |
| 10.10               | perceives both wild-type and truncated EPS   |                  |
| 12.10pm - 12.30pm   | Jay Jayaraman (P8)   | Clancy's Room    |
|                     | Massey University, Palmerston North, NZ  |                  |
|                     | Pseudomonas syringae pv. actinidiae effector HopZ5 is an                               |                  |
|                     | acetyltransferase triggering accession specific HR, dependent                          |                  |
|                     | on SOBER1, in Arabidopsis  |                  |
| 12.30pm - 1.45pm    | Lunch  | Trades Area      |
|                     | Host-Pathogen Interactions  Chaired by Simon Williams (Australian National University) |                  |
|                     | Chaired by Simon Williams (Australian National University)                             |                  |
| 1.45pm - 2.20pm     | Paul Birch (P9)  | Clancy's Room    |
| 1.15pm 2.20pm       | James Hutton Institute, University of Dundee, UK                                       | ciancy 5 mooni   |
|                     | The delivery and activity of effector proteins from                                    |                  |
|                     | Phytophthora infestans to suppress host immunity                                       |                  |
| 2.20pm - 2.50pm     | Rosie Bradshaw (P10)   | Clancy's Room    |
| 2.20pm 2.30pm       | Massey University  | Claricy 5 NOOIII |
|                     | Effector discovery and functional analysis in the kauri                                |                  |
|                     | dieback pathogen   |                  |
| 2.50pm - 3.10pm     | Joanna Bowen (P11)   | Clancy's Room    |
| 2.50pm 5.10pm       | Plant & Food Research, NZ  | ciancy 5 mooni   |
|                     | The response of WRKY transcription factors and   |                  |
|                     | pathogenesis-related proteins to Venturia inaequalis                                   |                  |
|                     | challenge in apple   |                  |
| 3.10pm - 3.30pm     | Susan Breen (P12)  | Clancy's Room    |
| 5.25p               | CSIRO, Australian National University, Australia                                       |                  |
|                     | Host induced gene silencing and exogenous RNA application                              |                  |
|                     | for the control of Puccinia species on wheat cultivars.                                |                  |
|                     |  |                  |
| 3.30pm - 4.00pm     | Afternoon Tea  | Trades Area      |
|                     | Genomes and Genomics Chaired by Megan McDonald (Australian National University)        |                  |
| •                   | Chaired by Megan McDonaid (Australian National Oniversity)                             |                  |
| 4.00pm - 4.30pm     | Diane Saunders (P13)   | Clancy's Room    |
| поорт поорт         | John Innes Centre, UK  |                  |
|                     | Genome guided interrogation of a cereal invader  |                  |
| 4.30pm - 4.55pm     | Jana Sperschneider (P14)   | Clancy's Room    |
| 4.50pm 4.55pm       | CSIRO Agriculture and Food, Australia  | Claricy 5 NOOIII |
|                     | Using machine learning to decipher how plant pathogens                                 |                  |
|                     | cause disease  |                  |
| 4.55pm - 5.15pm     | James Hane (P15)   | Clancy's Room    |
| 1.55pm 5.15pm       | Curtin University, Australia   | Claricy 3 NOOIII |
|                     | 'Ome Truths: bioinformatics approaches for the study of                                |                  |
|                     | adaptation mechanisms in pathogen genomes and their                                    |                  |
|                     | pathogenicity effector proteins  |                  |
| 5.15pm - 5.35pm     | David Winter (P16)   | Clancy's Room    |
| 2.13piii - 2.33piii | Massey University  | Ciancy 5 Room    |
|                     | A finished Epichloë festucae genome  |                  |
| 6.00pm - 7.30pm     | Poster Session sponsored by Mediray  | Trades Area      |
| 0.00pm 7.50pm       | Social Mixer sponsored by BGI  | uucs Aica        |
|                     | TOTAL ITIME! Sportsored by Doi   | ]                |

| Monday 4 Sep  | otember   |               |  |  |
|---|---|---------------|--|--|
| Time  | Details   | Location      |  |  |
| Plant Immunity Chaired by Matt Templeton (Plant & Food, Auckland) sponsored by Millennium Science New Zealand |   |               |  |  |
| 8.30am - 9.05am   | John Rathjen (P17) Australian National University, Australia Plant malectin kinase targets of the bacterial effector AvrPtoB  | Clancy's Room |  |  |
| 9.05am - 9.35am   | Simon Williams (P18) sponsored by Merck & pH Scientific Australian National University, Australia Elucidating the structural basis of effector-induced susceptibility in the Parastagonospora nodorum – wheat interaction | Clancy's Room |  |  |
| 9.35am - 9.55am   | Diana Ortiz (P19) INRA, France Recognition of the Magnaporthe oryzae effector AVR- Pia by the decoy domain of the rice NLR immune receptor RGA5   | Clancy's Room |  |  |
| 9.55am - 10.15am  | Bostjan Kobe (P20) University of Queensland, Australia Toward understanding TIR-domain function during plant NLR immunity receptor signaling  | Clancy's Room |  |  |
| 10.15am - 10.50am   | Morning Tea   | Trades Area   |  |  |
|   | Plant-Microbe Interactions Chaired by Rosie Bradshaw (Massey University)  |               |  |  |
| 10.50am - 11.20am   | Uta Paszkowski (P21) University of Cambridge, UK Membrane dynamics during arbuscule formation in rice   | Clancy's Room |  |  |
| 11.20am - 11.50am   | Alga Zuccaro (P22) University of Köln, Germany Plant immunity impacting beneficial interactions   | Clancy's Room |  |  |
| 11.50am - 12.30pm   | Fast forward: 8x 5 min student abstract presentations   | Clancy's Room |  |  |
| 12.30pm - 1.45pm  | Lunch   | Trades Area   |  |  |
|   | <u>Population Genetics</u> Chaired by David Winter (Massey University)  |               |  |  |
| 1.45pm - 2.20pm   | Megan McDonald (P23) Australian National University, Australia A new origin for ToxA in three Dothideomycete wheat pathogens  | Clancy's Room |  |  |
| 2.20pm - 2.50pm   | Honour McCann (P24) Massey University, Albany, NZ The origin of an emergent plant disease   | Clancy's Room |  |  |
| 2.50pm - 3.10pm   | Elena Colombi (P25) Massey University, Albany, NZ Evolution of copper resistance in the kiwifruit pathogen Pseudomonas syringae pv. actinidiae  | Clancy's Room |  |  |

|                 | through acquisition of integrative conjugative          |                              |
|-----------------|---|------------------------------|
|                 | elements and plasmids                                   |                              |
| 3.10pm - 3.30pm | Christina Straub (P26)                                  | Clancy's Room                |
|                 | Massey University, Albany, NZ                           |                              |
|                 | A Trojan horse in the kiwifruit phyllosphere?           |                              |
| 3.30pm - 4.00pm | Afternoon Tea   | Trades Area                  |
|                 | <b>Host-pathogen Interactions</b>                       |                              |
|                 | Chaired by Joanna Bowen (Plant & Food Ltd, NZ)          |                              |
|                 |   |                              |
| 4.00pm - 4.30pm | Gero Steinberg (P27)                                    | Clancy's Room                |
|                 | University of Exeter, UK                                |                              |
|                 | Live cell imaging of pathogenic fungi reveals novel     |                              |
|                 | fungicide mode of action                                |                              |
| 4.30pm - 5.00pm | Joe Spraker (P28)                                       | Clancy's Room                |
|                 | University of Arizona, USA                              |                              |
|                 | Intimate bacterial-fungal interactions mediated by      |                              |
|                 | interkingdom chemical communication                     |                              |
| 5.00pm - 5.15pm | Alan Little (P29)                                       | Clancy's Room                |
|                 | University of Adelaide                                  |                              |
|                 | Cell wall composition and biosynthetic machinery of     |                              |
|                 | the fungal pathogen Fusarium graminearum                |                              |
| 5.15pm - 5.30pm | Nazanin Noorifar (P30)                                  | Clancy's Room                |
|                 | Massey University, Palmerston North, NZ                 |                              |
|                 | Remodelling of cell wall chitin in endophytic hyphae of |                              |
|                 | Epichloë festucae in the symbiotic interaction with     |                              |
|                 | Lolium perenne and role of LysM proteins                |                              |
|                 | 6.00pm Opening Remarks                                  |                              |
|                 | 6.15pm Plenary talk                                     |                              |
|                 | Nobel prize winner Dr Bruce Beutler - 2011 Nobel        |                              |
| 6.00pm - 7.00pm | Prize in Physiology or Medicine, for "discoveries       | Queenstown Room              |
|                 | concerning the activation of innate immunity"           |                              |
|                 | University of Texas, USA                                |                              |
|                 | Sponsored: University of Otago                          |                              |
| 7.00pm – 9.00pm | Opening Night Mixer sponsored by Merck & pH Scientific  | Trades Area, Rydges<br>Hotel |