

**QRW Programme**  
**Computational Genomics**  
 3 – 4 September, 2015  
 Rydges Hotel, Queenstown, New Zealand

<b>Thursday 3 September</b>		
<b>Time</b>	<b>Details</b>	<b>Location</b>
8:30am – 8:35am	<b>Welcome and Introduction:</b> <b>Paul Gardner (University of Canterbury)</b> <b>Russell Snell (University of Auckland)</b>	<b>Queenstown Rm</b>
<b>Genomics in Populations</b> <b>Shared session with QRW Animal Genetics</b> <b>Chaired by Associate Professor Murray Cox (Massey University)</b>		
8:35am – 9:15am	<b>Lisa Matisoo-Smith (CG1)</b> University of Otago <i>Ancient DNA analyses in the Pacific - implications for human settlement history</i>	<b>Queenstown Rm</b>
9:15am – 9:35am	<b>Michael Knapp (CG2)</b> University of Otago <i>Understanding the evolution of island gigantism - a genomic approach</i>	<b>Queenstown Rm</b>
9:35am – 10:10am	<b>Jenny Marshall Graves (CG3)</b> <i>sponsored by University of Otago</i> La Trobe University; Australia <i>Sex and speciation: did sex chromosome turnover and rearrangement trigger mammalian divergence?</i>	<b>Queenstown Rm</b>
10:10am – 10:30am	<b>Anna Santure (CG4)</b> <i>sponsored by Millennium Science New Zealand</i> University of Auckland <i>Using genomics to manage adaptive potential in threatened populations</i>	<b>Queenstown Rm</b>
10:30am – 11:00am	<b>Morning Tea</b>	<b>Trade Area</b>
<b>Shared Session with QRW Proteins</b> <b>Chaired by Dr Jane Allison (Massey University)</b>		
11:00am – 11:35am	<b>Keith Dunker (CG5)</b> Indiana University; USA <i>Intrinsically disordered protein and the origins of complex multicellular organisms</i>	<b>Ben Lomond Restaurant</b>
11:35am - 11:55am	<b>Tamsyn Hilder (CG6)</b> Australian National University; Australia <i>Binding of fullerenes and nanotubes to the mechanosensitive channel of large conductance: A possible new class of antimicrobials</i>	<b>Ben Lomond Restaurant</b>
11:55am – 12:15pm	<b>Peter Bond (CG7)</b> Agency for Science, Technology & Research (A*STAR); Singapore <i>Multiscale dynamics of the dengue virus envelope</i>	<b>Ben Lomond Restaurant</b>

12:15pm – 12:35pm	<b>Nicole Wheeler (CG8)</b> University of Canterbury <i>A profile-based method for the detection of deleterious genetic variation</i>	<b>Ben Lomond Restaurant</b>
12:35pm – 1:30pm	<b>Lunch</b>	<b>Trade Area</b>
<b>Big 'Omics in New Zealand and Beyond Chaired by Dr Paul Gardner (University of Canterbury)</b>		
1:30pm – 2:15pm	<b>Aviva Presser Aiden (CG9)</b> <i>sponsored by NZGL &amp; NeSI</i> Baylor College of Medicine; USA <i>A dirt-powered generator</i>	<b>Queenstown Rm</b>
2:15pm – 2:35pm	<b>Sophia Cameron-Christie (CG10)</b> University of Otago <i>Mapping shared, genome-wide markers in a New Zealand Māori population to understand a childhood liver disease</i>	<b>Queenstown Rm</b>
2:35pm – 2:55pm	<b>Emily Telfer (CG11)</b> <i>sponsored by Bio-Strategy</i> SCION <i>Whole Forest Modelling: reconstructing the past, present and future performance of trees with big data</i>	<b>Queenstown Rm</b>
2:55pm – 3:15pm	<b>John McCallum (CG12)</b> Plant & Food Research and University of Otago <i>Use Your Words: Executable Explanations of Computational Genomics with Docker and Jupyter</i>	<b>Queenstown Rm</b>
3:15pm – 3:35pm	<b>Afternoon Tea</b>	<b>Trade Area</b>
<b>Selected talks and poster previews Chaired by Dr Kelly Atkinson (University of Auckland)</b>		
3:35pm – 3:50pm	<b>Helen McCormick (CG13)</b> Victor Chang Cardiac Research Institute and University of New South Wales; Australia <i>Performance evaluation and benchmarking of differential DNA methylation analysis methods</i>	<b>Queenstown Rm</b>
3:50pm – 4:45pm	<b>Poster previews (3-4 minutes each)</b> <i>Please hold your questions until the poster session</i>	<b>Queenstown Rm</b>
4:45pm – 6:45pm	<b>Poster Session (with beer/wine)</b> Shared with QRW Proteins <i>Computational Genomics poster prize sponsored by PLoS Computational Biology</i>	<b>Level 5 Area and Trades Area</b>
7:00pm - late	<b>Informal Dinner</b> <i>sponsored by SciMed</i> Shared with QRW Proteins	<b>Winnie's</b>

<b>Friday 4 September</b>		
<b>Time</b>	<b>Details</b>	<b>Location</b>
<b>Medical Genomics and Proteins</b> <b>Shared Session with QRW Genome &amp; Disease and Animal Genetics</b> <b>Chaired by Professor Cris Print (University of Auckland)</b>		
8:30am – 9:15am	<b>Erez Lieberman Aiden (CG14)</b> Baylor College of Medicine Rice University; USA <i>How the genome folds: now inside the loop</i>	<b>Ben Lomond Restaurant</b>
9:15am – 9:35am	<b>Ken Dodds (CG15)</b> AgResearch <i>Optimisation of sequencing effort for relatedness estimation using genotyping-by-sequencing</i>	<b>Ben Lomond Restaurant</b>
9:35am – 10:00am	<b>Alicia Oshlack (CG16)</b> Murdoch Children's Research Institute; Australia <i>Tumour Transcriptomes: going beyond expression profiling</i>	<b>Ben Lomond Restaurant</b>
10:00am – 10:30am	<b>Morning Tea</b>	<b>Trade Area</b>
<b>Microbial Genome Evolution</b> <b>Chaired by Dr Heather Hendrickson (Massey University)</b>		
10:30am – 11:15am	<b>Jonathan Eisen (via Skype) (CG17)</b> University of California, Davis; USA <i>Phylogeny driven approaches to the study of microbial diversity</i>	<b>Ben Lomond Restaurant</b>
11:15am – 11:35am	<b>Olin Silander (CG18)</b> Massey University <i>Gene expression noise is selected for and facilitates the evolution of novel regulatory interactions</i>	<b>Ben Lomond Restaurant</b>
11:35am – 11:55pm	<b>Honour McCann (CG19)</b> Massey University <i>The emergence and evolution of the kiwifruit pathogen Pseudomonas syringae pv. actinidiae</i>	<b>Ben Lomond Restaurant</b>
11:55pm – 12:15pm	<b>Aaron Darling (CG20)</b> University of Technology, Sydney; Australia <i>Inference of genomes from metagenomes: solving informatics problems in the wet lab</i>	<b>Ben Lomond Restaurant</b>
12:15pm – 12:30pm	<b>Sinan Umu (CG21)</b> University of Canterbury <i>Crosstalk in bacterial and archaeal RNA regulatory circuits is selected against</i>	<b>Ben Lomond Restaurant</b>
12:30pm – 2:00pm	<b>Lunch and themed discussions</b>	<b>Trade Area and Queenstown Rm</b>
<b>Phytophthora</b> <b>Chaired by Lucy Macdonald (SCION)</b>		
2:00pm – 2:45pm	<b>Brett Tyler (CG22) sponsored by Bio-Protection Research Centre</b> Oregon State University; USA <i>From genomics to effectors: how Phytophthora pathogens cause disease</i>	<b>Clancy's Rm</b>

2:45pm – 3:30pm	<b>Rebecca McDougal (CG23)</b> sponsored by NZGL & NeSI SCION <i>“Small zoospores in a large pond”</i> : Genomics of <i>Phytophthora tree pathogens in New Zealand</i>	<b>Clancy’s Rm</b>
3:30pm – 4:00pm	<b>Afternoon tea</b>	<b>Level 5 Area</b>
4:00pm – 4:45pm	<b>Richard Hamelin (CG24)</b> sponsored by SCION University of British Columbia; Canada <i>Population genomics of Phytophthoras attacking trees: evolutionary mechanisms and genome diversity</i>	<b>Clancy’s Rm</b>
4:45pm – 5:30pm	<b>Nik Grunwald (CG25)</b> sponsored by SCION Oregon State University; USA <i>Population genomic tools and inferences to characterize emergence in the plant pathogen genus Phytophthora</i>	<b>Clancy’s Rm</b>
5:30pm	<b>Closing Remarks and Poster Prize</b> Dr Paul Gardner	<b>Clancy’s Rm</b>