PROGRAMME TEMPLATE

QRW Programme
Applied Genetics / Genomics in Breeding Technologies
Monday 30 August – Tuesday 31 August, 2021
Rydges Hotel, Queenstown, New Zealand

Monday 30 August

Time	Details	Location
8:30am - 9:30 am	**Mihi whakatau**	**Queenstown Room**
9:30am - 9:45am	**Morning Tea**	**Level 5, Lobby**
9:45am – 10:30am	**Mihi whakatau continues**	**Clancy Room**
	Session 1: Technologies: sequencing, genotyping, GWAS etc **Chaired by David Chagné (Plant & Food Research New Zealand)**	
10.00am-10.10am	**Andrew Allan** PFR & University of Auckland *Welcome and Introduction*	**QT Von Rm**
10.10am-10.30am	**Chad Harland (AG1)** *sponsored by illumina* Livestock Improvement Corporation, Hamilton *Big data: Population level screening for de novo, familial and rare variants*	**QT Von Rm**
10.30am-10.50am	**Sara Montanari (AG2)** *sponsored by Mediscope Int. Ltd* Plant & Food Research, Motueka *High-density linkage map construction in an autotetraploid blueberry population and detection of QTLs for anthocyanin content*	**QT Von Rm**
10.50am-11.10am	**Thomas Lopdell (AG3)** Livestock Improvement Corporation, Hamilton *Exploration of complex traits using QTL mapping of molecular phenotypes*	**QT Von Rm**
	Session 2: Animal improvement and management **Chaired by Maren Wellenreuther (Plant & Food Research New Zealand)**	
11.20am-11.40am	**Emily Koot (AG4)** *sponsored by illumina* Plant and Food Research, Palmerston North *Population genomic assessment of hoki stock structure (Macruronus novaezelandiae)*	**QT Von Rm**
11.40am-12.00pm	**Tom Oosting (AG5)** *sponsored by Mediscope Int. Ltd* Victoria University of Wellington*Whole-genome sequencing provides new insights into management of the New Zealand snapper fishery*	**QT Von Rm**
12.00pm-12:20pm	**Anna Santure (AG6)** University of Auckland *Combining heritability estimates, gene mapping, inbreeding analysis and genetic diversity to predict adaptive potential in the threatened hihi (stitchbird)*	**QT Von Rm**
12.30pm-2.00pm	**"Lunch amongst the posters": a modern fusion of food and a poster session...**	**Marquee**

Session 3: Plant Improvement **Chaired by Karine David (University of Auckland)**		
2.00pm-2.20pm	**Erika Varkonyi-Gasic (AG7)** Plant & Food Research, Auckland *Gene editing for fast breeding and improvement of kiwifruit*	**QT Von Rm**
2.20pm-2.40pm	**Roger Hellens (AG8)** Scion *uORFs: finding them and editing them*	**QT Von Rm**
2.40pm-3.00pm	**Charlotte Voogd (AG9)** Plant & Food Research, Auckland *Chill responses of plants and the threat of climate change*	**QT Von Rm**
3.00pm-3.20pm	**Rowan Herridge (AG10)** University of Otago *Identification and characterization of flowering time genes in Ryegrass*	**QT Von Rm**
3.20pm – 4.00pm	**Afternoon Tea**	**Level 5 & Trade Area**
Session 4: Emerging Researchers and Student talks **Chaired by Nijat Amin (University of Auckland)**		
4.00pm-4.20pm	**Darrell Lizamore (AG11)** Bragato Research Institute *Genome-wide epigenetic changes during and following grapevine somatic embryogenesis*	**QT Von Rm**
4.20pm-4.40pm	**Monica Vallender (AG12)** University of Otago & AgResearch Invermay Agricultural Centre *A big data, population genetics approach of low depth GBS to inform stock management of wild Chinook salmon (Oncorhynchus tshawytscha) in New Zealand*	**QT Von Rm**
4.40pm-5.00pm	**Alex Caulton (AG13)** University of Otago & AgResearch Invermay Agricultural Centre *Development of a farm animal epigenetic clock; a molecular predictor of age*	**QT Von Rm**
5.00pm-5.20pm	**Dinum Herath (AG14)** Plant and Food, University of Auckland *Knockout of AcBFT2 by CRISPR/Cas9 – targeted mutagenesis to reduce plant dormancy in kiwifruit*	**QT Von Rm**
5.00pm - 7.30pm	**Evening Social Function** *sponsored by Millennium Science* Drinks and canapes	**Level 4, Trade Area**

Tuesday 31 August

Time	Details	Location
— **Session 1: CRISPR use in the primary sector** **Chaired by Andrew Allan (Plant & Food Research New Zealand)**		
9.00am-9.20am	**Nick Albert (AG15)** *sponsored by Bio-Strategy Ltd* Plant & Food Research, Palmerston North *CRISPR in diverse land plant lineages*	**QT Von Rm**
9.20am-9.40am	**Elena Lopez-Girona (AG16)** Plant & Food Research, Palmerston North *CRISPR-enrichment for fine mapping*	**QT Von Rm**
9.40am-10.00am	**Russell Snell (AG17)** *sponsored by Millennium Science* University of Auckland *Our experience in the evolution of gene editing methods in sheep*	**QT Von Rm**
10.00am-10.20am	**Lynette Brownfield (AG18)** *sponsored by Mediray* University of Otago *Changing the ins and outs of plant breeding*	**QT Von Rm**
10.20am-11.00am	**Morning Tea**	**Level 5 & Trade Area**
Session 6: Genomic predictions and breeding **Chaired by Richard Spelman (Livestock Improvement Corporation, Hamilton)**		
11.00am-11.20am	**Dorian Garrick (AG19)** Massey University *A novel genetic mechanism generates a tri-modal distribution of offspring for a complex trait*	**QT Von Rm**
11.20am-11.40am	**Peter Amer (AG20)** AbacusBio *Global experience with objective methods for trait prioritisation*	**QT Von Rm**
11.40am-12.00pm	**Ruidong Xiang (AG21) (ZOOM)** AgVic, Melbourne *A customised genotyping panel using functional genomic information improves genomic prediction of cattle traits*	**QT Von Rm**
12.00pm-12.20pm	**Klaus Lehnert (AG22)** *sponsored by Millennium Science* University of Auckland *Genetics and selection of New Zealand's dairy goats*	**QT Von Rm**
12.30pm – 1.00pm	**Lunch**	**Level 5 & Trade Area**
Session 7: Developing higher value plants **Chaired by Richard Espley (Plant & Food Research New Zealand)**		
1.30pm-1.50pm	**Robert Schaffer (AG23)** *sponsored by Bio-Strategy Ltd* Plant & Food Research, Motueka & University of Auckland *Improving fruit quality via gene edits*	**QT Von Rm**
1.50pm-2.10pm	**Chris Winefield (AG24)** *sponsored by Ngaio Diagnostics* Lincoln University *Utilisation of transposons to alter genomic and epigenomic diversity in crop plants*	**QT Von Rm**
2.10pm-2.30pm	**Rongmei Wu (AG25)**	**QT Von Rm**

	Plant & Food Research, Auckland *An ever-green apple tree for a future climate?*	
2.30pm-2.50pm	**Glenn Thorlby (AG26)** *sponsored by Bio-Rad Laboratories Pty Ltd* Scion *Gene editing to improve the productivity, sustainability and resilience of New Zealand's planted forests*	**QT Von Rm**
3.20pm – 4.00pm	**Afternoon Tea**	**Level 5 & Trade Area**
<td colspan="3" align="center">**Session 8: Implementation, socialisation and application of technologies** **Chaired by Matt Littlejohn (Livestock Improvement Corporation, Hamilton)**</td>
3.30pm-3.50pm	**Bjorn Oback (AG27)** *sponsored by Bio-Rad Laboratories Pty Ltd* AgResearch, Ruakura Male germline complementation in chimaeric sheep	**QT Von Rm**
3.50pm-4.10pm	**Timothy Bilton (AG28)** AgResearch & Invermay Agricultural Centre Application of statistical methods for phenotype prediction from rumen microbiome data in the livestock industry	**QT Von Rm**
4.10pm-4.30pm	**Susan Thomson (AG29)** Plant & Food Research, Lincoln High throughput genotyping for molecular breeding in *Actinidia* sp.	**QT Von Rm**
4.30pm-4.50pm	**Phil Wilcox (AG30)** *sponsored by University of Otago* University of Otago Māori perceptions of gene editing	**QT Von Rm**
5.00pm	**Closing comments**	**QT Von Rm**
<td colspan="3" align="center">**Queenstown Research Week Session** *sponsored by University of Otago*</td>
6.30pm – 7.30pm	**Professor Gary Evans, Chief Science Adviser MBIE** "The Changing Landscape of Science Funding"	**Queenstown & Wakatipu Rm**
7.30pm – 9.30pm	**Fashionomics** *sponsored by Thermo Fisher Scientific*	**Level 4, Trade Area**