QRW Programme

Advances in Marine Biology and Aquaculture

Thursday 30 August – Friday 31 August, 2018

Rydges Hotel, Queenstown, New Zealand

Thursday 30 August

Time	Details	Location
	Session 1: Consequences of domestication **Chaired by Maren Wellenreuther (Plant and Food Research & Auckland University)**	
8.55 – 9.00	**Welcome and Introduction**	
9.00 – 10.00 60 min	**Kerry Naish (MB1)** School of Aquatic and Fishery Sciences, University of Washington, USA *'Two sides of the same coin: promoting or avoiding the evolutionary consequences of domestication in marine aquaculture'*	
10.00-10.30	**Morning Tea**	**Trade Area**
	Session 2: Aquaculture and wild fisheries **Chaired by Peter Ritchie (Victoria University)**	
10.30-11.00 30 min	**Jane Symonds (MB2)** Cawthron Institute, Nelson New Zealand aquaculture breeding and genomics, progress and opportunities for three flagship species	
11.00-11.15 15 min	**Peter Morrison-Whittle (MB3)** Plant and Food Research *'Developing Snapper for Aquaculture: The roadmap of genetic research from wild to farmed fish'*	
11:15-11:45 30 min	**Mark Lokman (MB4)** Department of Zoology, University of Otago *'A review of recent advances in reproductive technologies of fish: the dawn of a new era?*	
11.45-12.00 15 min	**Yvan Papa (MB5)** University of Victoria *'A whole genome-level analysis of New Zealand tarakihi stock structure (Nemadactylus macropterus)'*	
12.00-12.30 30 min	**Megan Wilson (MB6)** Department of Anatomy, Otago University *'Studying whole body regeneration and evolution in marine chordates'*	
12.30-13.30	**Lunch**	**Trade Area**
	Session 3: Social license (joint with Plant Biology & Applied Genetic Technologies) **Chaired by Revel Drummond (Plant and Food Research)**	
13.30-13.45 15 min	**Barry Scott (MB7)** Massey University, Royal Society of New Zealand *The implications of gene editing technology for New Zealand*	
13.45-14.15 30 min	**Julie Everett-Hincks (MB8)** University of Otago *Gene editing in Aotearoa - legal considerations*	

14.15-14.30 15 min	**Maui Hudson (MB9)** University of Waikato *Social License or Cultural License: Is there a difference?*	
14.30-14.45 15 min	**Jim Sinner (MB10)** Cawthron Institute, Nelson *Social license in the marine environment: Dissecting the discourse*	
14.45-15.00 15 min	**Damien Mather (MB11)** University of Otago *Conflicts between agricultural and tourism sectors: evidence for solutions*	
15.00-15.15 15 min	**Timothy Strabala (MB12)** Environmental Protection Authority *The regulation of GMOs in New Zealand*	
15.15-15.30 15 min	**Mariska Wouters (MB13)** MfE *Gene editing technologies: how they fit in New Zealand's policy framework*	
15.30-16.00	Afternoon Tea	**Trade Area**
<u>Session 4: Genomic selection and breeding (joint with Applied Genetic Technologies)</u> **Chaired by Jane Symonds**		
16.00-16.30 30 min	**Dorian Garrick (MB14)** Massey University *Genomic Selection for Improvement of Populations*	
16.30-16.50 20 min	**Fiona Hely (MB15)** AbacusBio Ltd *Optimised selection strategies in New Zealand aquaculture breeding schemes*	
16.50-17.10 20 min	**Shannon Clarke (MB16)** AgResearch *Delivering genomic solutions to New Zealand's biological economy*	–
17.10-17.25 15 mins	**Noemie Valenza-Troubat (MB17)** Plant and Food Research, & Victoria University *'Genomics of New Zealand trevally: identifying the genetic basis of quantitative traits to inform a newly developed breeding programme'*	
17.30- 18.30	**Poster session** **Social Mixer with drinks and nibbles** *sponsored by pH Scientific and Merck*	**Trade Area**
19.30-onwards	**Joint Dinner at Winnies (joint with Applied Genetic Technologies)**	Winnies, 7-9 The Mall Queenstown

Friday 31 August		
Time	**Details**	**Location**
Session 5: Ancient DNA **Chaired by Michael Knapp (Otago University)**		
9.00am - 9.10am	**Welcome and Introduction**	
9.10am - 10.00am	*Sponsored by Plant and Food Research* **Plenary lecture: Andrew Foote (MB18)** Molecular Ecology and Fisheries Genetics Laboratory, School of Biological Sciences, Bangor University, UK *'The genetic consequences of past climate change on marine mammals inferred from ancient DNA and genomics'*	
10.00am-10.30am	**Morning Tea**	**Trade Area**
Session 6: Ancient DNA, Environmental DNA and Biomonitoring **Chaired by Nic Rawlence (Otago University)**		
10.30am-11.00am 30 mins	**Neil "Nessie" Gemmell (MB19)** *sponsored by Ngaio Diagnostics* Department of Anatomy, University of Otago *'Environmental DNA for biodiversity, biosecurity and monster hunting'*	
11.00am –11.30am 30 mins	**David Lambert (MB20)** Environmental Futures Research Institute, Griffith University, Nathan, Australia *'Bursting the limits of time: ancient population genomics of Adélie penguins'*	
11.30am-12.00am 30 mins	**Nic Rawlence (MB21)** Department of Zoology, Otago University *'Subsistence practices, past biodiversity, and anthropogenic impacts revealed by New Zealand-wide ancient DNA survey'*	
12.00am-12.15pm 15 mins	**Chris Battershill (MB22)** University of Waikato *'Marine Bioactives: Exploiting flexible biosynthetic pathways to fine tune desirable modes of action'*	
12.15am-12.30pm 15 mins	**Phil Ross (MB23)** Environmental Research Institute, Coastal Science, University of Waikato *'Ancient aquaculture and the influence of early-Māori on the distribution and dynamics of toheroa'*	
12.30pm-1.30pm	**Lunch**	
Session 7: Environmental DNA **Chaired by Michael Knapp (Otago University)**		
1.30pm-2.00pm 30 mins	**Dianne Gleeson (MB24)** Institute for Applied Ecology, University of Canberra *'Application of eDNA for Marine Biomonitoring: Lessons learned from freshwater systems'*	
2.00pm-2.30pm 30 mins	**Rochelle Constantine (MB25)** School of Biological Sciences, University of Auckland *'Environmental DNA metabarcoding from the path of New Zealand's critically endangered Māui dolphins'*	

2.30pm-3.00pm 30 mins	**Xavier Pochon (MB26)** The Cawthron Institute, Nelson *'From alpine lakes to open oceans: using metabarcoding to enhance aquatic biomonitoring and biodiversity assessments'*	
3.00pm-3.15pm	**J P Bilewitch (MB27)** NIWA, Wellington *'Quantification of Bonamia exitiosa infection levels in the flat oyster Ostrea chilensis by ddPCR'*	
3.15pm-3.30pm	**Discussion**	
3.30pm-4.00pm	**Afternoon Tea**	**Trade Area**

Shared Session 8: Genome Editing for plants/ Plant biotechnology for Forestry (joint with Plant Molecular Biology & Applied Genetic Technologies Biology) **Chaired by TBC**		
3.30-4.55pm 25 min	**Andrew Allan (MB28)** Plant and Food Research *New breeding technologies for fruit trees*	
4.55-4.20pm 25 min	**Glenn Thorlby (MB29)** Scion *Biotechnology and Forest Trees in New Zealand*	
4.20-4.45 25 min	**Charleson Poovaiah (MB30)** Scion *Developing Gene editing technology in conifers*	
	Short selected talk:	
4.45-5.00 15 min	**Revel Drummond (MB31)** Plant and Food *CRISPR Fruit: three bites at the problem*	
	Poster prizes, maybe 2– one for animal/human and one for plant poster Closing remarks for both meetings	
7.00-8.40pm	FOOD EVOLUTION Movie screening	Clancy's Room
8:40pm-9:30pm	**Panel discussion/Q&A:** Alison van Eenennaam (UC Davis), Gregory Bryan (AgResearch/ZeaKal), Tony Conner (AgResearch), Aroha Te Pareake Mead (Ngāti Awa, Ngāti Porou)	Clancy's Room

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