

Environmental Omics

Thursday 3 September – Friday 4 September, 2026 Te Pae, Christchurch, New Zealand

Wednesday 2 September

Time	Details	Location
QRW Plenary Lecture <i>sponsored by Decode Science</i>		
4.45pm	Audience take seats	
5.00pm-5.10pm	Introduction	Conway C2+C3 live feed to C4 and C5
5.00pm-6.00pm	Plenary Lecture: Prof. Sir Graham Le Gros Malaghan Institute of Medical Research <i>Harnessing the Power of the Immune System Using Basic Science and Cutting Edge Technologies</i>	Conway C2+C3 live feed to C4 and C5
6.00pm-8.00pm	Evening Social Function & The Great QMB Trivia Night <i>sponsored by Thermo Fisher Scientific</i>	Exhibition Area

Thursday 3rd September

Time	Details	Location
Session 1 Environmental technologies to protect natural ecosystems Chaired by Dr Alana Alexander (Ōtākou Whakaihu Waka University of Otago)		
9.00am-10.00am Keynote speaker	Professor Amanda Black (EO1) Lincoln University, NZ. <i>Omics in the landscape – what can they tell us about resilience</i>	Conway C1
10.00am-10.30am	Morning Tea	Exhibition Area
Session 2 Social and cultural dimensions of 'omics and eDNA Alana Alexander (Ōtākou Whakaihu Waka University of Otago)		
10.30am-11.00am Invited speaker	Dr Dawn Lewis and Dr Vilma Perez (EO2) ARC Centre of Excellence for Indigenous and Environmental Histories and Futures, James Cook University, AU. <i>Ancient environmental DNA studies in Australia</i>	Conway C1
11.00am-11.30am Invited speaker	Professor Phil Wilcox (EO3) University of Otago, NZ <i>An Indigenously centred ecosystem for eDNA research and application: a proposed model for Aotearoa-New Zealand</i>	Conway C1
11.30am-11.45am	Dr Clare Adams and Dr Alana Alexander (EO4) University of Otago, NZ <i>Enabling the use and understanding of eDNA by hapori Māori</i>	Conway C1
11:45am-12:15pm Invited speaker	Teremoana Porter-Rawiri (Abstract EO5) University of Auckland, NZ <i>Fungal communities as expressions of puāwaitanga in Wairarapa wetlands</i>	Conway C1

12.15pm-12.20pm	Sponsor presentation: Steven Dodd Thermo Fisher Scientific <i>Nature's Hidden Clues: Exploring Environmental DNA</i>	Conway C1
12.30pm-1.30pm	Lunch	Exhibition Area
Session 3 Advances in 'omic technologies Chaired by Benjamín Durán-Vinet (Ōtākou Whakaihu Waka University of Otago)		
1.30pm-2.00pm Invited speaker	Dr Ang McGaughran (Abstract EO6) University of Waikato, NZ <i>eDNA innovation stories from water, webs, and weasels</i>	Conway C1
2.00pm-2.15pm	Gracie Kroos (Abstract EO7) University of Otago, NZ <i>Temporal persistence of airborne environmental DNA in a natural open-air setting</i>	Conway C1
2.15pm-2.30pm	Dr Benjamín Durán-Vinet (Abstract EO8) University of Otago, NZ <i>CRISPR-based environmental biosurveillance platform for the detection of endangered dolphin species</i>	Conway C1
2.30pm-2:45pm	Anh Thu Tran Nguyen (Abstract EO9) University of Otago, NZ <i>Sensing RNA-protein interactions with ONT nanopore sequencing</i>	Conway C1
2:45pm-3:00pm	Dr Elahe Parvizi (Abstract EO10) University of Waikato, NZ <i>Recovering hypervariable ascidian mitochondrial genomes from Oxford Nanopore whole-genome sequencing datasets</i>	Conway C1
3.00pm-3.30pm	Afternoon Break	Exhibition Area
Session 4 eDNA ecology Chaired by Dr Kaj Kamstra (Ōtākou Whakaihu Waka University of Otago)		
3.30pm-4.00pm Invited speaker	Prof. Susie Wood (Abstract EO11) Lincoln University, NZ. <i>From national gradients to millennial records: microbial community structure across space and time</i>	Conway C1
4:00pm-4:15pm	Dr Clare Adams (Abstract EO12) University of Otago, NZ <i>Advancing eDNA uptake through Southern Hemisphere collaboration and capacity building</i>	Conway C1
4.15pm-4.30pm	Dr Aimee Van Der Reis (Abstract EO13) University of Auckland, NZ <i>Exploring the diet of the vulnerable spotted shag</i>	Conway C1
4.30pm-4.45pm	Nicolas Restrepo (Abstract EO14) University of Otago, NZ <i>Environmental DNA metabarcoding of kelp forest and rocky shore ecosystems in the Bay of Plenty, northern New Zealand</i>	Conway C1
4.45pm-5:00pm	Dr Richard O'Rorke (Abstract EO15) University of Auckland, NZ	Conway C1

	<i>Using unique molecule identifiers (UMIs) on bulk DNA extracts to detect subtle genetic patterns amongst large larval populations</i>	
5:00pm-5.15pm	Dr Sarah Lowry (Abstract EO16) PHF Science, NZ <i>Hyperplex PCR for the simultaneous detection and quantitation of 50 bacteria and viruses: application to the analysis of microbial water quality</i>	Conway C1
5:15pm-5.30pm	Prof. Phil Lester (Abstract EO17) Victoria University of Wellington, NZ <i>Bioprotection using dsRNA biopesticides: controlling the parasitic mite Varroa destructor in honey bee colonies</i>	Conway C1
5.30pm-7.30pm	Evening Social Mixer <i>sponsored by Lab Supply</i>	Exhibition Area
7.30pm-late	Dinner The Goldfinch Restaurant & Bar Ticket only	The Goldfinch 145 Victoria Street, Christchurch

Friday 4th September

Time	Details	Location
Session 5 eDNA applications Chaired by Distinguished Professor Neil Gemmell (Ōtākou Whakaihu Waka University of Otago)		
9.00am-10.00am Keynote speaker	Dr Toni Piaggio (Abstract EO18) United States Department of Agriculture, Animal and Plant Health Inspection Service, US <i>CRISPR-Cas technology for advancing biocontrol and eDNA applications</i>	Conway C1
10.00am-10.30am	Morning Tea	Exhibition Area
Session 6 Unwanted: Detection and control Chaired by Benjamín Durán-Vinet (Ōtākou Whakaihu Waka University of Otago)		
10.30am-11.00am Invited speaker	Dr Manpreet Dhami (Abstract EO19) Bioeconomy Science Institute, NZ <i>Investigating the invasion pathways of global pests – genomic mechanisms, source tracking and invasion fronts.</i>	Conway C1
11.00am-11.30am Invited speaker	Dr Anna Clark (Abstract EO20) University of Otago, NZ <i>Evaluating Gene Drives for Invasive Mammal Control in a Complex Ecological Model of the South Island of New Zealand</i>	Conway C1
11.30am-11.45am	Jack Sissons (Abstract EO21) Cawthron Institute, NZ <i>Modelling gene-drive-based control of an invasive ascidian</i>	Conway C1
11.45am-12.00pm	Nishil Gounder (Abstract EO22) University of Otago, NZ	Conway C1

	<i>Development and deployment of a CRISPR-based environmental biosurveillance platform for the detection of brushtail possums</i>	
12.00pm-12.15pm	John Mackay (Abstract E23) Dnature diagnostics & research Ltd, NZ <i>Out of the (bee) box diagnostics - Disease, Biosecurity and Surveillance via eDNA means and the Foster Method.</i>	Conway C1
12.15pm-12.30pm	Dr Vinko Besic and Georgia Bell (Abstract EO24) PHF Science, NZ <i>VibrioRapid: Developing a low-barrier assay for detecting Vibrio spp. directly from seawater</i>	Conway C1
12.30pm-1.30pm	Lunch	Exhibition Area
Session 7 Conservation Omics Chaired by Dr Kaj Kamstra (Ōtākou Whakaihu Waka University of Otago)		
1.30pm-2.00pm Invited speaker	Dr Sebastian Alvarez-Costes (EO25) University of Otago, NZ <i>Genomic predictors of infectious disease mortality in endangered Hector's and Māui dolphins</i>	Conway C1
2.00pm-2.15pm	Aryan Behal (Abstract EO26) University of Otago, NZ <i>Investigation of Social Structure and Population History in New Zealand False Killer Whales</i>	Conway C1
2.15pm-2.30pm	Dr Alexander Verry (Abstract EO27) University of Canterbury, NZ <i>High-quality genomic resources inform population recovery for one of the world's most inbred birds - the Chatham Island black robin</i>	Conway C1
2.30pm-2.45pm	Henry Collecutt (Abstract EO28) University of Otago, NZ <i>Investigating Population Structure Among NZ Kuku (Perna canaliculus) using Long Read Sequencing</i>	Conway C1
2.45pm-3.00pm	Dr Dafni Anastasiadi (Abstract EO29) Bioeconomy Science Institute, NZ <i>Epigenetic biomarkers in management and conservation of taonga species</i>	Conway C1
3.00pm-3.30pm	Afternoon Break	Exhibition Area
Session 8 Methodological advances Chaired by Dr Alana Alexander (Ōtākou Whakaihu Waka University of Otago)		
3.30pm-4.00pm Invited speaker	Dr William Pearman (Abstract EO30) University of Auckland, NZ <i>Host-microbiome research requires clearly articulated null hypotheses</i>	Conway C1
4:00pm-4:15pm	William Taylor (Abstract EO31) PHF Science, NZ <i>Iterative Database Development for Environmental Amplicon Analysis</i>	Conway C1
4.15pm-4.45pm Invited speaker	Dr Alejandro Trujillo González (Abstract EO32)	Conway C1

	Australian National eDNA Reference Centre, University of Canberra, AU <i>Automation of Molecular Workflows in Biosecurity: Removing Bottlenecks Without Compromising Sensitivity</i>	
--	--	--