|  |  |
| --- | --- |
| **Tuesday 11th November** | |
| 8:45am | Karakia and Welcome |
| **Keynote** | |
| **Session Chair: Samantha Baldwin** | |
| 9:00am | **Keynote:** Brian Cullis (University of Wollongong)  *DWREML: a computationally efficient R package for fitting aspirational mixed models in genetic improvement programs* |
| **9:45am** | **Morning Tea** |
| **Indigenous Health** | |
| **Session Chair: Jeanne Jacobs** | |
| 10:15am | Phil Wilcox (University of Otago)  *Whāia te mātauranga hei oranga mō koutou: Advancing Māori participation and leadership in medical genomics research – an overview* |
| 10:35am | ECR Award: Ben Rangihuna (University of Otago)  *Pioneering precision medicine for Māori and Pacific people: Estimating metabolic disease-specific (gout) polygenic risk scores (PRS) to find ‘biological hubs’* |
| 10:55am | ECR Award: Clare Adams (University of Otago)  *Identifying pleiotropic variants for metabolic conditions in Māori and Pacific peoples* |
| 11:15am | Martin Kennedy (University of Otago, Christchurch)  *CYP2D6\*71 is a low functioning pharmacogene variant common in Polynesian and Māori people but absent from Europeans* |
| 11:35am | Alastair Lamont (University of Otago)  *Population Simulation to Optimise Study Designs and Estimate Polygenic Disease Risk/Resilience in Aotearoa Māori Populations* |
| **11:55pm** | **Lunch** |
| **Keynote** | |
| **Session Chair: Samantha Baldwin** | |
| **1:00pm** | **Keynote:** Timothy Bilton (BSI – AgResearch)  *A new era of genomic prediction for the primary industries: Genomics for all, phenotyping at scale* |
| **Methods and Teaching** | |
| **Session Chair: Alastair Lamont** | |
| 1:45pm | Ken Dodds (BSI – AgResearch)  *What is the best sequencing depth for genome-wide association studies?* |
| 2:05pm | ECR Award: Julie Blommaert (BSI – Plant and Food)  *Can decision trees do the job of GWAS and GBLUP? A case study in Australasian snapper* |
| 2:25pm | John Holmes (University of Canterbury)  *Improving breeding value reliability approximation in genetic evaluation with the help of fictitious animals* |
| 2:45pm | Chloé van der Berg (Genomics Aotearoa)  *Genomics Aotearoa presents the Bioinformatics Training Programme* |
| **3:05pm** | **Afternoon tea** |
| **Animal Disease** | |
| **Session Chair: Rebecca Clarke** | |
| 3:35pm | John McEwan (BSI – AgResearch)  *An Icelandic sheep saga: mapping Bógkreppa to a frameshift mutation in the SHOX gene* |
| 3:55pm | ECR Award: Lucía Mayor Fidalgo (Doñana Biological Station, Seville Spain)  *Linkage mapping reveals two candidate regions associated to juvenile idiopathic epilepsy in the Iberian lynx* |
| 4:15pm | Marion Price-Carter (BSI – AgResearch)  *ONT SNP amplicon sequencing for rapid and high-resolution Bovine TB strain typing directly from tissue* |
| **Structural Variations** | |
| **Session Chair: Ting-Hsuan Chen** | |
| 4:35pm | ECR Award: Tram Vi (University of Auckland)  *Conserved genomic landscapes of variation in two common invasive birds* |
| 4:55pm | Rebecca Clarke (BSI – AgResearch)  *Uncovering the Role of Structural Variants in Genetic Selection for New Zealand Sheep* |
| 5:15pm | Closing remarks for the day |
| 5:30pm | Finish |
| 6:30pm | Dinner – The Laboratory |
|  |  |
| **Wednesday 12th November** | |
| 8:25am | Welcome |
| **Keynote** | |
| **Session Chair: Samantha Baldwin** | |
| 8:30am | **Keynote:** Anna Santure (University of Auckland)  *Leveraging two decades of monitoring to map inbreeding depression in the threatened hihi (stitchbird; Notiomystis cincta)”* |
| **Plants Part One** | |
| **Session Chair: Phil Wilcox** | |
| 9:15am | Annabel Whibley (Bragato Research Institute)  *Reading between the vines: genomic and epigenomic variation in Sauvignon blanc* |
| 9:35am | Cen Liau (Bragato Research Institute)  *DNA methylation analysis of grapevine with nanopore sequencing* |
| **9:55am** | **Morning Tea** |
| **Plants Part Two** | |
| **Session Chair: Phil Wilcox** | |
| 10:20am | John McCallum (BSI – Plant and Food)  *Microhaplotype-based GWAS Reveals Multiple Loci Underlying Diversity of Polyphenol Content in Fruit of Actinidia Hybrids* |
| 10:40am | Margaret Carpenter (BSI – Plant and Food)  *Multiplexed amplicon sequencing for DNA fingerprinting in crop breeding programmes* |
| 11:00am | ECR Award: Natalie Graham (BSI – Scion)  *Heritability of the tree root microbiome* |
| **11:20am** | **MapNet Discussion: Phil Wilcox** |
| **12:00pm** | **Lunch** |
| **Aquaculture** | |
| **Session Chair: Rachael Ashby** | |
| 1:00pm | Jane Symonds (Cawthron Institute)  *Climate Adapted Finfish: Salmon Thermotolerance and Multiomics Update* |
| 1:20pm | ECR Award: July Ariñez (University of Otago/ BSI – AgResearch)  *Development of genome assembly for climate resilience breeding of farmed Chinook salmon in New Zealand* |
| 1:40pm | Roy Costilla (Cawthron Institute)  *Sex prediction using genomic information and machine learning in New Zealand Sockeye salmon* |
| 2:00pm | ECR Award: Mindy Leader (BSI – Plant and Food/ University of Auckland)  *Genomics-Informed Breeding for Climate Resilience in Aquaculture* |
| 2:20pm | ECR Award: Megan Scholtens (Cawthron Institute)  *Tools to accelerate genetic gain for Ostreid Herpesvirus-1 (OsHV-1) resilience in Pacific oysters (Crassostrea gigas)* |
| **Reflections on genetics research** | |
| 2:40pm | Bruce Weir ( ) *TBC* |
| **3:00pm** | **Closing Remarks and Karakia** |
| **3:20pm** | **Finish** |