

# 2014 NGS PROGRAMME

## **TUESDAY 12TH AUGUST**

9.00am Registration and Coffee

10.00am **Welcome to the 2014 New Zealand NGS Conference**  
Jo Stanton

### **SESSION 1**

*CHAIR: JO STANTON*

10.05am **KEYNOTE SPEAKER**  
**Nanopore Sequencing**  
Toumy Guettouche  
*Center for Applied Genomics, Children's Hospital of Philadelphia, USA*

11.05am *Morning Tea*

### **SESSION 2**

*CHAIR: JO STANTON*

11.25am **Changes in protein and mRNA levels in human hepatocellular carcinoma cells in response to iron**  
Sam Taylor-Wardell  
*MSc student, University of Otago*  
*Winner of an NGS Conference Student Scholarship*

11.45am Speaker Sponsored by Millennium Science  
**Pacbio single molecule long-read sequencing: Applications and Bioinformatic Tools**  
Siddarth Singh  
*Pacific Biosciences, Singapore*

12.25pm *Lunch*

### **SESSION 3**

*CHAIR: RUDI BRAUNING*

1.10pm **KEYNOTE SPEAKER**  
**Skeletons in the shearing shed**  
Brian Dalrymple  
*CSIRO, Australia*

**SESSION 4 WORKING WITH RNA**

*CHAIR: RUDI BRAUNING*

2.10pm **The DMAP Differential Methylation Analysis Package and its application to DNA methylation markers of myelodysplastic syndrome**

Peter Stockwell  
*University of Otago*

2.30pm **Tackling the challenge - transcriptomics in tetraploids**

Roger Moraga  
*AgResearch*

2.50pm **Hidden gems in sequences- noncoding RNAs**

Chris Brown  
*University of Otago*

3.10pm **Integrating Next Generation Sequencing Data with additional 'omics datasets**

Paul Maclean  
*AgResearch*

3:30 pm *Afternoon Tea*

3.50pm Speaker sponsored by Bio-Strategy  
**Moving from genomic discovery to translational results : Highly multiplexed, automated digital enumeration of DNA and RNA targets**

Michael Rhodes  
*Nanostring Technologies, Washington, USA*

**SESSION 5 NGS IN FORENSICS**

*CHAIR: EUAN RODGER*

4.30pm **The use of messenger RNA in forensic science**

Rachel Fleming  
*ESR*

4.50pm **Sequencing forensic DNA samples using next generation sequencing**

Ryan England  
*ESR*

5.10pm  
to 6.00pm **NZGL Networking Session**  
Enjoy a glass of wine with colleagues and participate in one of the discussion forums  
*Sponsored by New Zealand Genomics Limited*

6.30pm **Conference Dinner**  
*Sponsored by Bio-Strategy*

**WEDNESDAY 13TH AUGUST**

8:30 am *Early morning Coffee*

**SESSION 6**

CHAIR: *TBA*

9:00 am **KEYNOTE SPEAKER**  
**The real power of metagenomics**  
Bas Dutilh  
*Radboud University Nijmegen, The Netherlands*

10:00 am *Morning Tea*

**SESSION 7 METAGENOMICS AND BIOSECURITY**

CHAIR: *LIA LIEFTING*

10.15am **Metasecretome phage display – a new approach for mining surface and secreted proteins from complex microbial communities**  
Milica Ciric  
*Ministry for Primary Industries*

10.35am **Amplicon sequencing reveals differences in the diversity and abundance of bacteria in New Zealand grassland soils**  
Tina Summerfield  
*University of Otago*

10.55am **NGS in biosecurity: how MPI is using NGS to protect New Zealand**  
Jenny Draper  
*Ministry for Primary Industries*

11.15am **Using next-generation sequencing for environmental biomonitoring**  
Eddy Dowle  
*Cawthron Institute*

11.35am Speaker sponsored by Life Technologies, a premier brand of Thermo Fisher Scientific  
**Polishing a closed de novo microbial genome sequence by IonTorrent**  
Wayne Mitchell  
*Lanzatech*

12.15pm Gold Sponsor Presentation - sponsored by Life Technologies, a premier brand of Thermo Fisher Scientific  
**Ion AmpliSeq™ Technology for Genetic Analysis and Gene Expressions Studies**  
Evgeny Glazov  
*Life Technologies, Australia*

12.30pm *Lunch*

**SESSION 8      GENOTYPING I**

*CHAIR:            JOHN MCEWAN*

- 1.10pm      **Evaluating BRCA1 and BRCA2 sequence variants that modulate isoform expression**  
Vanessa Lattimore  
*PhD student, University of Otago*  
*Winner of an NGS Conference Student Scholarship*
- 1.30pm      **Primary Growth Partnership Dairy Genomics Program : Year 4**  
Mike Keenan  
*Livestock Improvement Company*
- 1.50pm      **Non model genomics – gene mapping goes wild!**  
Anna Santure  
*University of Auckland*
- 2.10pm      **Genotyping-by-Sequencing (GBS): Comparison to SNP chips and Whole Genome Sequencing**  
Shannon Clarke  
*AgResearch*
- 2.30pm      **Determining recombinants of viral genomes from NGS pileup data**  
Graham Wood  
*Warwick University, UK*
- 2.50pm      *Afternoon Tea*

**SESSION 9      GENOTYPING II**

*CHAIR:            ANDRIY PODOLYAN*

- 3.10pm      **Genome Assembly of the Greenshell™ Mussel**  
Rachel Ashby  
*Masters student, University of Otago*  
*Winner of an NGS Conference Student Scholarship*
- 3.30pm      **Comparative genomics of Rhizobia strains**  
Clement Delestre  
*AgResearch*
- 3.50pm      **Playing Bioinformatics Masterchef – Contributions to Big Projects/Consortia**  
Aurelie Laugraud  
*AgResearch*
- 4.10pm      **Towards a full genome assembly of a the 25GB radiata pine megagenome**  
Philip Wilcox  
*Scion Research*
- 4.30 pm      **Conference Close**  
Jo Stanton