

## 2013 NGS PROGRAMME

*TUESDAY 13TH AUGUST*

9.00am Registration and Coffee

10.00am **Welcome to the 2013 New Zealand NGS Conference**  
Lesley Collins

**SESSION 1 PLATFORM APPLICATIONS**

*CHAIR: JO STANTON*

10.10am Sponsored by the Gold Sponsor - Life Technologies  
**PLENARY SPEAKER**  
**Development of sequencing applications on the Ion Torrent Proton semi-conductor sequencer**  
Richard Allcock  
*University of Western Australia*

11.10am Morning Tea

**SESSION 2 INFECTIOUS DISEASE**

*CHAIR: JULIET ANSELL*

11.30am **NGS in biosecurity: MPI's response to detection of *Flavobacterium psychrophilum* in New Zealand**  
Jenny Draper  
*New Zealand Ministry for Primary Industries*

11.50am **Metagenomic detection of viruses in aerosol samples from workers in animal slaughterhouses**  
Richard Hall  
*Institute of Environmental Science and Research Ltd*

12.10am **WGS for sourcing *Mycobacterium bovis* breakdowns**  
Marian Price-Carter  
*AgResearch*

12.30pm Lunch

**SESSION 3      NGS IN THE CLINIC**

*CHAIR:            LESLEY COLLINS*

1.20pm            **PLENARY SPEAKER**  
**Application of sequencing technologies in cancer therapeutics and clinical oncology**  
Mark McKeage  
*University of Auckland*

**SESSION 4      TECHNICAL CONSIDERATIONS FOR NGS PROJECTS**

*CHAIR:            DANIEL HURLEY*

2.20pm            **RNA spike-in controls: an emerging standard for RNAseq experiments?**  
Dan Jones  
*University of Auckland*

2.40pm            **Statistics and considerations of digital gene expression: a brief overview**  
Paul Maclean  
*AgResearch*

3.00pm            **Pushing the Limits with NZGL**  
Becky Laurie  
*University of Otago*

3:20 pm            Afternoon Tea

**SESSION 5      POSTERS**

*CHAIR:            JO STANTON*

3.45pm            **Gold Sponsor Talk**  
**To the Cloud - with a Torrent of data**  
John Davis  
*Life Technologies*

4.00pm            **Poster Speakers – Selected from Poster abstracts**  
6 speakers talking for 5 mins each  
*See the programme pg 22 for the names of those who will be talking*

4.30pm  
to 6.00pm            Poster Session

6.30pm            Conference Dinner  
*Indian 2nite*  
*22 George Street*

*WEDNESDAY 14TH AUGUST*

8:45 am Early morning Coffee

**SESSION 6 SAMPLE CHALLENGES FOR NGS**

*CHAIR: LESLEY COLLINS*

9:30 am **PLENARY SPEAKER**  
**Deep Sequencing of Difficult Samples**  
Toumy Guettouche  
*University of Miami*

10:30 am Morning Tea

**SESSION 7 GENOMICS**

*CHAIR: PHILLIP WILCOX*

11.00am **White Clover Genome: Sequencing an allogamous allotetraploid genome**  
Roger Moraga  
*AgResearch*

11.20am **Utilisation of Next Generation Sequencing by LIC for dairy cattle breeding**  
Mike Keehan  
*Livestock Improvement Company*

11.40am **The changing NGS landscape - applied research on sheep**  
Rudiger Brauning  
*AgResearch Limited*

12.00pm **Automated De Novo Genome Assemblies and Epigenomes of Bacterial Pathogen**  
Jonas Korfach  
*Pacific Biosciences, California*

12.30pm Lunch

**SESSION 8 EVOLUTIONARY BIOLOGY**

*CHAIR: LIA LIEFTING*

1.20pm **How many mutations between parents and offspring?**  
David Penny  
*Massey University*

1.40pm **Applying NGS to experimental evolution in microbial populations**  
Zachary Arden  
*2nd year MSc student, University of Auckland*  
*Winner of an NGS Conference Student Scholarship*

2.00pm **A sequenced yeast cross for QTL mapping**  
Miguel Roncoroni  
*4th year PhD student, University of Auckland*  
*Winner of an NGS Conference Student Scholarship*

2.20pm **Origin of land plants revisited using three new chloroplast genomes and heterogeneous models**  
Bojian Zhong  
*Massey University*

2.40pm Afternoon Tea

**SESSION 9 TRANSCRIPTOMICS**

*CHAIR: RACHEL FLEMMING*

3.00pm **Exploring the role of *Neotyphodium lolii* in *Lolium perenne* drought tolerance using RNA sequencing**  
Yanfei Zhou  
*4th year PhD student, Massey University*  
*Winner of an NGS Conference Student Scholarship*

3.20pm **Uncovering the genes and pathways involved in the initiation and differentiation of specialized cell types during whole body regeneration in *Botrylloides leachi***  
Lisa Zondag  
*1st PhD student, University of Otago*  
*Winner of an NGS Conference Student Scholarship*

3.40pm **MicroRNA analysis of two native New Zealand *Pachycladon* species**  
Louise Carr  
*MSc student, Massey University*  
*Winner of an NGS Conference Student Scholarship*

4.00pm **Poster Prizes Awarded**  
Lesley Collins

4.10 pm **Conference Close**  
Jo Stanton