

# The International Conference on Nutrigenomics & Gut Health

PRE-REGISTRATION 8 AM

PRE-CONFERENCE WORKSHOP 1; 9 AM, 30TH APRIL 2006  
**DESIGN AND ANALYSIS OF STUDIES IN GENETIC  
EPIDEMIOLOGY**

Session chair: Chris Triggs/Mik Black

- 9:00 AM *Chris Triggs*  
Introduction.
- 9:05 AM *Charles Cantor, Boston University, MA, USA*  
Design and analysis of whole genetic scans  
**Sponsored by Sequenom/BioLab**
- 9:35 AM *Brian Browning, The University of Auckland, NZ*  
Design and analysis of genetic association studies
- 9:55 AM *Mik Black, The University of Auckland, NZ*  
Microarray design and analysis
- 10:15 AM *Morning Tea*
- 10:45 AM *Grier Page, University of Alabama, AL, USA*  
Applying statistics to high dimensional systems
- 11:15 AM *Pieter Demmers, Crop & Food Research, NZ*  
Caring and sharing of data in a collaborative project
- 11:35 AM *Jim Kaput, University of California, Davis, CA, USA*  
Systems biology – integrating data from different  
disciplines in nutrigenomics – the International effort  
**Sponsored by MORST**

LUNCH; 12:05 PM

PRE-CONFERENCE WORKSHOP 2; 1 PM, 30TH APRIL 2006

**INTEGRATING NEW TECHNOLOGIES IN NUTRIGENOMICS**

Session chair: William Laing

- 1:00 PM *William Laing, HortResearch, NZ*  
Introductory comments
- 1:05 PM *Robert Henke, Millennium Science, Australia*  
Advances in Genomic Profiling Using Ultra-high Density  
Microarrays  
**Sponsored by Millennium Science**
- 1:35 PM *Martin Philpott, The University of Auckland, NZ*  
Investigating nutrient – gene interactions in cell culture  
models
- 1:55 PM *Matt Barnett, AgResearch Limited, NZ*  
Animal models of inflammatory bowel disease,  
microarrays and transcriptomics
- 2:15 PM *William Laing, HortResearch, NZ*  
Proteomics
- 2:35 PM *Afternoon Tea*
- 3:05 PM *Ben Hwang, Invitrogen, China*  
Proto-arrays  
**Sponsored by Invitrogen**
- 3:35 PM *Daryl Rowan, HortResearch, NZ*  
Metabolomics: Applications in Nutrigenomics
- 3:55 PM *Workshops end*

YOUNG INVESTIGATORS SESSION; 4:30 PM, 30TH APRIL  
2006

**SUPPORTED BY AGILENT TECHNOLOGIES**

CONFERENCE PRE-REGISTRATION / NETWORKING  
RECEPTION; 6:30 PM, 30TH APRIL 2006

**SPONSORED BY THE UNIVERSITY OF AUCKLAND**

# The International Conference on Nutrigenomics & Gut Health

CONFERENCE REGISTRATION; 7:30 AM

POWHIRI / WELCOME; 8:30 AM

SESSION 1; 9 AM 1ST MAY 2006

## MOLECULAR AND GENETIC EPIDEMIOLOGY

Session chair: Don Love

**9:00 AM *Invitrogen Keynote Address***

*Jose Ordovas, Tufts University, MA, USA*  
Nutrigenomics and Cardiovascular Diseases

**9:40 AM *Biolab/Sequenom Keynote Address***

*Charles Cantor, Boston University, MA, USA*  
Single nucleotide polymorphisms (SNPs): detection, analysis and application

10:20 *Morning Tea*

11:00 AM *John Hesketh, University of Newcastle-Upon-Tyne, UK*  
Se, SNPs and susceptibility to disease - do some people need more selenium?

**Sponsored by AgResearch Limited**

11:40 AM *Andrew Shelling, The University of Auckland, NZ*  
Genetic studies of Crohn's disease

LUNCH; 12:00 PM **SPONSORED BY HORTRESEARCH**

SESSION 2; 1 PM 1ST MAY 2006

## EPIGENETICS

Session chair: Andrew Shelling

1:00 PM *Lynn Ferguson, The University of Auckland, NZ*  
Genetics, Epigenetics, Nutrition and chronic disease

1:30 PM *Marie Dziadek, Garvan Institute, Sydney, Australia*  
Epigenetic consequences of nutritional deficiency in pregnancy

2:00 PM *Michael Fenech, CSIRO, Australia*  
Diagnosis and nutritional treatment of genome and epigenome damage  
**Sponsored by the Health Research Council of New Zealand**

2:30 PM *Afternoon Tea*

SESSION 3; 3:00 PM 1ST MAY 2006  
**FOOD/NUTRIENT INTERACTIONS WITH GENES**  
Session chair: Julian Heyes

3:00 PM *Ben van Ommen, NUGO, The Netherlands*  
A nutritional systems biology approach in the interplay between inflammation and metabolic stress  
**Sponsored by the Health Research Council of New Zealand**

3:40 PM *Stephen Barnes, University of Alabama, AL, USA*  
Investigation of Diet-Gene Interactions: Genomics, Proteonomics and Metabolomics – back to the future?  
**Sponsored by HortResearch**

4:10 PM *Helen Kim, University of Alabama, AL, USA*  
Proteomics of actions of grape seed extract in the brain; extrapolation to the gut

4:40 PM *Break*

4:50 PM *Nicole Roy, AgResearch Limited, NZ*  
Animal models in developing nutrigenomic foods for gut health

5:10 PM *Margot Skinner, HortResearch, NZ*  
Nutrient-gene interactions in modulating immune response

POSTER SESSION / DRINKS; 5:30 PM  
**SPONSORED BY SEQUENOM/BIOBAB**

SESSION 4; 8:45 AM 2ND MAY 2006

**GUT HEALTH**

Session chair: Warren McNabb

8:45 AM *Denise Kelly, Rowett Research Institute, Aberdeen, UK*  
Importance of microbial colonisation of the gut in early life to the development of immunity

**Sponsored by The University of Auckland**

9:25 AM *Gerald Tannock, University of Otago, NZ*  
The gut microbiota in health and disease

9:55 AM *Dirk Haller, Technical University of Munich, Germany*  
Intestinal epithelial cell signaling and host-derived negative regulators under chronic inflammation: from the proteome to specific mechanisms

10:35 AM *Morning Tea*

11:05 AM *Andrew Pullan, The University of Auckland, NZ*  
Modelling the gastrointestinal system

11:25 AM *Martin Wickham, Institute of Food Research, UK*  
Recent advances in modelling of human digestive processes

**Sponsored by Crop & Food Research**

11:55 AM *Richard Head, CSIRO, Australia*  
Starch fermentation, gut bacteria and genomics

12:15 PM *Warren McNabb, AgResearch Limited, NZ*  
Asia/Pacific Nutrigenomics Network

12:20 PM *Jose Ordovas, Tufts University, MA, USA*  
International Nutrigenomic Network

**Sponsored by Invitrogen**

LUNCH; 12:25 PM **SPONSORED BY AGRESEARCH LIMITED**  
CSIRO WORKSHOP

SESSION 5; 1:30 PM 2ND MAY 2006

**CLINICAL PERSPECTIVES**

Session chair: Graeme Young

- 1:30 PM *Graeme Young, CSIRO, Australia*  
Dietary Factors and Genomic Stability –the Link
- 2:00 PM *E Shyong Tai, Singapore General Hospital, Singapore*  
Genetic epidemiology studies in Singapore
- 2:30 PM *Yoon-Ok Ahn, Seoul National University College of Medicine, Korea*  
The interactive effect of alcohol drinking and polymorphism of acetaldehyde dehydrogenase on the risk of colorectal cancer
- 2:50 PM *Dong-Hyun Kim, Hallym University College of Medicine, Korea*  
The interactive effect of methyl-group diets and polymorphism of methylenetetrahydrofolate reductase on the risk of colorectal cancer
- 3:10 PM *Alan Fraser, The University of Auckland, NZ*  
Crohn's Disease – clinical aspects
- 3:30 PM *Afternoon Tea*

## SESSION 6; 4:00 PM 2ND MAY 2006

### **CONTRIBUTED PAPERS**

Session chair: Bronwen Smith

- 4:00 PM *Slavik Dushenkov, Wellgen, New Brunswick, NJ, USA*  
Nutrigenomics approach to the management of inflammatory diseases
- 4:15 PM *Jun Kikuchi, Riken Plant Science Centre, Japan*  
Stable isotope labelling of plants for a hetero-nuclear NMR-based nutrition profiling
- 4:30 PM *Byong Lee, McGill University, Canada*  
Biochemical and molecular characterisation of Bifidobacterial bile salt hydrolases and their applications
- 4:45 PM *Donia Macartney, ESR, NZ*  
Gene expression analysis of liver, and omental adipose tissue from morbidly obese subjects
- 5:00 PM *Chiara Murgia, INRAN National Research Institute of Food and Nutrition, Rome, Italy*  
Zinc fluxes and zinc transporter genes in chronic diseases

5:15 PM *Bob Elliot, Living Cell Technologies, Auckland, NZ*  
Modern food processing increases likelihood of diabetes

CONFERENCE DINNER  
**SPONSORED BY INVITROGEN**

## **The International Conference on Nutrigenomics & Gut Health**

Bringing nutrigenomics foods to the market

SESSION 7, 8:45 AM 3RD MAY 2006

### **PERSONALISING NUTRITION: REASONS AND LIMITATIONS**

Session chair: Lynn Ferguson

8:45 AM *Lynn Ferguson, The University of Auckland, NZ*  
Introduction to nutrigenomics for the food industry

9:15 AM *Kevin Davies, Crop & Food Research, NZ*  
Manipulating nutrients for specific human purposes

9:35 AM *Kevin Sutton, Crop and Food Research, NZ*  
Food technology: prospects and limitations in  
developing personalised foods

9:55 AM *Don Love, The University of Auckland, NZ*  
Use of biomarkers to validate the efficacy of foods

10:15 AM *Morning Tea*

SESSION 8, 10:45 AM 3RD MAY 2006

### **SCIENCE, SUPERMARKET AND SOCIETY**

Session chair: Denis Lauren

10:45 AM *David Castle, University of Guelph, Canada*  
Science, supermarket and society – The ethics of  
personalised nutrition

11:15 AM *Donald Evans, University of Otago, NZ*  
Ethics and nutrigenomics

11:45 AM *Nola Ries, University of Alberta, Canada*  
Public health issues of nutrigenomics foods

12:15 AM *Lyn Bridger, NZTE, NZ*

Bringing biotechnology foods to the market: national  
and international perspective

LUNCH; 12:35 PM

**SPONSORED BY CROP & FOOD RESEARCH**

SESSION 9, 1:35 PM 3RD MAY 2006

**FROM SCIENCE TO A MARKETABLE FOOD PRODUCT**

Session chair: Laurie Melton

*1:15 PM Jim Kaput, University of California, Davis, CA, USA*  
Nutrigenomics and the food industry  
**Sponsored by MORST**

*1:55PM Rosalynn Gill-Garrison, Sciona, Inc., USA*  
Consumer perspective: experience of a company  
specialising in nutrigenomics

*2:15 PM Mike Boland, Fonterra Research, NZ*  
Mass customisation of food

*2:35 PM Tony Nowell, Griffin's Foods Ltd, NZ*  
Issues for the New Zealand food industry with  
nutrigenomic foods

*2:55PM Afternoon Tea*

*3:15 PM Dean Stockwell, Food Standards Australia New Zealand,  
NZ*  
Regulatory issues of nutrigenomics foods

*3:35 PM Bob Boyd, Food Standards Australia New Zealand, NZ*  
Marketing the Diet-Disease relationship

PANEL DISCUSSION; 3:55PM

How real is the prospect of countries accepting personalised foods  
developed through nutrigenomics?

CONFERENCE CLOSE; 4:55PM