



The Australian Society
for **Microbiology**

Queensland Branch presents:

Microbiology in Maleny **MiM2014**

Saturday 29th November 2014
Tranquil Mountain Park Resort, Maleny

The 2014 meeting will include:

Geoff Simmons Memorial Lecture **“Multi drug resistance and cross-resistance in bacteria of animal origin”** **Prof Corinna Kehrenberg**

After having graduated in Veterinary Medicine (1997) at the University of Veterinary Medicine in Hannover/Germany, Corinna started her PhD studies in the special field Microbiology. In 2000, she received the PhD degree and two years later, the degree of a DVM. Currently Prof Kehrenberg works in the Institute for Food Quality and Food Safety at the University of Veterinary Medicine in Hannover/Germany. Her research interest is in molecular microbiology, with most of her work focused on antimicrobial resistance. Her research includes the association between the application of biocides and the development of antibiotic resistance, monitoring of resistance, resistance mechanisms, and the presence of resistant bacteria in wild game. She is a member of the working group “Antimicrobial resistance” of the German Veterinary Medical Society (DVG)

Other speakers:

- Dr. Willa Huston, Dr. Freda Jen, Dr Raquel Lo
- Professor Jon Iredell (ASM President)

ASM Members: Free (Non-members: \$35 + \$10 bus fee)

Includes: Bus to and from Maleny, morning and afternoon tea, lunch and sunset drinks with the Blackall Range as backdrop.

To RSVP, please send the completed registration form by 19th Nov 2014 to:
Jillian Templeton (Jillian.Templeton@daff.qld.gov.au)



AID

Australian Infectious Diseases research centre
Queensland Institute for Medical Research
The University of Queensland



Queensland Institute of
Medical Research



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MiM2014 Microbiology in Maleny

Queensland Branch of the Australian Society for Microbiology

Saturday 29th November 2014



REGISTRATION FORM

Surname:

Title:

Full Name:

Organisation:

Postal Address:

Postcode:

Telephone:

Fax:

Email:

Dietary requirements:

I will be travelling on the hire bus – pick up point UQ St Lucia Chancellors Place

Bus will leave 8:15 am sharp.

I will organise my own transport to Tranquil Mountain Park Resort, Maleny

Payment:

Members of the Australian Society for Microbiology	Free
Non-members	\$35 (for meeting)*
Non-members	\$10 (for bus)*

(*Payable in **cash** on the day of the meeting)

Please email the completed registration form to:

Jillian Templeton (Jillian.Templeton@daff.qld.gov.au)

Please think carefully as you submit this RSVP. The Branch has to meet the costs (catering, bus and so forth) for all RSVP replies received. We understand that plans do sometimes change BUT please understand that after 14th November the Branch will be responsible for all costs associated with a submitted RSVP.

RSVP 19th November 2014

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Program

Time	Schedule	Speaker
9:45 am	Arrive at Tranquil Mountain Park Resort and morning tea	
10:15 -10:20	Opening address and welcome	Dr Kate Seib (ASM-Qld Chair)
10:20-10:30	Introduction of Simmons trust speaker	Dr Pat Blackall (Poultry CRC)
10:30 -11:20	Multi drug resistance and cross-resistance in bacteria of animal Origin	Prof. Corinna Kehrenberg (Germany)
11:20-11:40	An antimicrobial role for zinc in innate immune defence against Group A Streptococcus	Dr Cheryl -lynn Ong (UQ)
11:40-12:00	The role of whole genome sequencing in the molecular epidemiological typing of Neisseria meningitidis	Christine Doyle (QHFSS)
12:00 pm	Lunch and Christmas Party	
1:30 -2.00	Unscrambling the egg	Prof. Jonathan Iredell (Univ. Sydney)
2:00- 2.20	Effect of carbon dioxide on microbiological quality of whey	Dr Raquel Lo (UQ)
2.20-2.45	Investigating the function of an essential pathogenesis protease from Chlamydia using chemical inhibition and genetics approaches	Dr Willa Huston (QUT)
2:45 pm	Afternoon Tea	
3.00-3.15	A novel capsular typing method for Streptococcus pneumonia using Minimum SNPs	Rachael E. Rayner (QUT)
3:15 -3:35	A genetic screen reveals a periplasmic copper chaperone required for nitrite reductase activity in pathogenic Neisseria	Dr Freda Jen (GU)
3:35-3.50	Viral and bacterial co-infections of the respiratory track: a tale of Two unlikely allies	Jaelle Brealey (UQ)
3.50-4.05	Novel sulfite oxidising enzymes in marine a Roseobacter species	Ruowei Feng (UQ)
4.05-4.20	Future directions for ASM	Prof. Jon Iredell (ASM President)
4:20 -4:30	Closing address	Dr Kate Seib (ASM-Q Chair)
4.35 pm	Sunset drinks at Tranquil Mountain Park Resort	
6:00 pm	Hire bus departs back to Brisbane	

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Speaker biographies



[Corinna Kehrenberg \(Simmons Trust Speaker\)](#)

After having graduated in Veterinary Medicine (1997) at the University of Veterinary Medicine in Hannover/Germany, I started my Ph.D.-studies in the special field Microbiology. In 2000, I received the Ph.D. degree and two years later, the degree of a DVM. Currently, I work in the Institute for Food Quality and Food Safety at the University of Veterinary Medicine in Hannover/Germany. My research interest is in Molecular Microbiology, with most of my work is focused on Antimicrobial Resistance. My research includes: the association between the application of biocides and the development of antibiotic resistance, monitoring of resistance, resistance mechanisms, and the presence of resistant bacteria in wild game. I am a member of the working group "Antimicrobial resistance" of the German Veterinary Medical Society (DVG).

[Cheryl-Lynn Ong](#)

Dr Cheryl Ong obtained her PhD in Microbiology and Biochemistry from the University of Queensland, Australia in 2009 under the supervision of Prof. Mark Schembri. She then took up a one year postdoctoral position with Prof. Alastair McEwan and is currently 50:50 with Prof. McEwan and Prof. Mark Walker at UQ. Her research interests are focussed on metal metabolism within pathogenic bacteria in particular *Streptococcus* species and the role it plays in host-pathogen interactions and virulence.

[Christine Doyle](#)

Christine is currently employed as a Molecular Epidemiologist in the Public Health Microbiology Laboratory of Queensland Health Forensic and Scientific Services. Her role includes the molecular epidemiological typing of various notifiable bacteria including *Neisseria meningitidis*.

[Jonathan Iredell](#)

Jon Iredell is a physician and microbiologist who does translational research in the area of antibiotic resistance and severe sepsis. Current projects include the ecology and genetic epidemiology of mobile antibiotic resistance, the effects of antibiotics on the microbiome, and the prediction of outcomes in severe sepsis and the critically ill. He originally trained in Intensive Care, then Infectious Diseases and Microbiology, followed by a PhD at University of Adelaide at the University of Adelaide in a bacterial pathogenesis lab (with Paul Manning). He spends about half his time in a hospital working with real patients and about half his time in a research institute working with real scientists. He is the current President of ASM.

[Raquel Lo](#)

Raquel Lo is a research fellow in the ARC Dairy Innovation Research Hub in the School of Agriculture and Food Sciences in the University of Queensland. Her research focuses on lactic acid bacteria and dairy product shelf-life. She has just completed a project funded by Dairy Innovation Australia Limited on the effect of carbon dioxide on the shelf-life and bacterial populations of dairy products including raw milk and cheese whey. Her current project is on the relationship between adjunct *Lactobacillus* cultures and Cheddar cheese flavour. She obtained her PhD in microbiology in 2010 from Queensland University of Technology where she studied oxidative defence in *Lactobacillus reuteri*.

[Wilhemina \(Willa\) Huston](#)

Willa Huston is a senior lecturer and research group leader at the Institute of Health and Biomedical Innovation at Queensland University of Technology. Her research is focussed on molecular microbiology of the human intracellular pathogen Chlamydia, particularly how proteases function in the organism's pathogenesis. Her team is funded by NHMRC and ARC Linkage funding and most recently they have uncovered an essential role for the protease HtrA in the replicative phase of chlamydial development. This

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was the first successful application of chemical inhibition to demonstrate an essential chlamydial protease. Prior to her current role she held an NHMRC Peter Doherty Fellowship, and IHBI and QUT Faculty of Science Fellowships as a research intensive fellow. She has 30 research publications and over \$ 2 million in competitive research funding through her career. She came to QUT from a Postdoctoral Fellowship in the UK at The University of York examining cytochromes in bacteria. Her PhD was at The University of Queensland (conferred 2004) as a joint student within the labs of Professor Al McEwan and Mike Jennings where together they uncovered a role for multicopper oxidases in bacterial pathogenesis.

Rachael Rayner

Rachael is a PhD student at QUT, studying genotyping methods for *Streptococcus pneumoniae* under the supervision of Flavia Huygens. The genotyping methods utilised are Multi-Locus Sequence Typing (MLST) and Multi-Locus Variable-number of Tandem repeat Analysis (MLVA) for characterisation of Queensland invasive pneumococcal strains. Following this, she has investigated the development of a pneumococcal capsule typing method based on PCR for the characterisation of the different pneumococcal serotypes. A recipient of the Australian Postgraduate Award (APA) scholarship, her PhD has been conducted at Queensland Health Forensic and Scientific Services (first 12 months) and Institute of Health and Biomedical Innovations (IHBI). She is in her final year. Rachael is interested to continue studying molecular genotyping and bacterial characterisation, particularly related to otitis media (ear infections) and hearing loss.

Freda Jen

Dr Freda Jen obtained her PhD in molecular microbiology from the University of Queensland, Australia in 2009 and is currently a postdoctoral researcher in Prof. Michael Jennings' laboratory at the Institute for Glycomics at Griffith University. Her research interests are focused on understanding the mechanisms and biological roles of post-translational modifications (such as glycosylation and phosphorylcholine modification) and phase variation in the host adapted bacterial pathogens *Neisseria meningitidis* and *Neisseria gonorrhoeae*.

Jaelle Brealey

Jaelle is a PhD student studying in Prof Paul Young's lab. She did a Bachelor of Science in Microbiology and Computational Science at UQthe University of Queensland, followed by Honours in Microbiology. She carried out her Honours project with Paul Young, using a mixture of wet lab techniques and bioinformatics to characterise the nasopharyngeal microbiota in young children with respiratory infections. She has continued on and extended this work in her PhD, with a more specific focus on interactions between RSV and *S. pneumoniae*

Ruowei Feng

Ruowei is a Biotechnology Honours student studying in Dr Ulrike Kappler's lab. Her project is about the novel sulfite oxidizing enzymes (SOEs) in a marine bacterium, *Ruegeria pomeroyi* DSS-3.