



THE UNIVERSITY OF SYDNEY

Workshop Program



Molecular Diagnostics of Infectious Diseases

April 30 - May 2, 2009

Lowenthal Auditorium
Westmead Education & Conference Centre
Westmead Hospital
Cnr Hawkesbury & Darcy Roads
Westmead, Sydney

Hosted by CIDM - Public Health

(612) 9845 6255

www.cidmpublichealth.or/workshop.html

Lou.Orszulak@swahs.health.nsw.gov.au

THURSDAY, April 30, 2009

| | |
|---------------------|---|
| 8:00 am - 9:00 am | REGISTRATION (Westmead Education & Conference Centre Foyer) |
| 8:30 am - 5:00pm | Industry Trade Display Open (Westmead Education & Conference Centre Foyer) |
| 9:00 am - 9:10 am | <p>Welcome</p> <p><i>Professor Lyn Gilbert</i> <i>Director of Centre for Infectious Diseases and Microbiology - Public Health, Westmead Hospital</i></p> |
| 9:10 am - 9:50 am | <p>SESSION 1: Effective use of molecular diagnostics</p> <p>Joint Keynote Speakers</p> <p>Non-invasive diagnostic imaging for infections - current approaches, needs and future opportunities <i>Professor Shih-Chang Wang, Parker-Hughes Chair of Diagnostic Radiology, University of Sydney</i> <i>Dr David Farlow, Director of Nuclear Medicine, Westmead Hospital</i></p> |
| 9:50 am - 10:30 am | <p>Design and development of diagnostic kits for emerging pathogens <i>A/Professor Raymond Lin, National Public Health Laboratory, National University Hospital, Singapore</i></p> |
| 10:30 am - 11:00 am | Morning Tea (Foyer) |
| 11:00 am - 11:30 am | <p>New national and international regulatory requirements for IVD's <i>Robyn Wood, TGA</i></p> |
| 11:30 am - 12:00 am | <p>Managing molecular diagnostics : Executive's perspective <i>A/Professor Roger Wilson, Prince of Wales Hospital, SEALS</i></p> |
| 12:00 am - 12:30 pm | <p>Delivering molecular diagnostics: Laboratory's perspective <i>Tom Olma, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i></p> |
| 12:30 pm - 1:30 pm | Lunch (Foyer) |

| | | |
|-------------------|---------------------------|---|
| 1:30 pm - 2:00 pm | | Bacterial culture-independent molecular tests in a core hospital lab <i>Speaker TBA, Dept of Microbiology, Nepean Hospital</i> |
| 2:00 pm - 2:30 pm | | PCR based detection of emerging fungal pathogens <i>Dr Catriona Halliday, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 2:30 pm - 3:00 pm | | TBA <i>Qiagen Pty Ltd</i> |
| 3:00 pm - 3:30 pm | | Afternoon Tea (Foyer) |
| 3:30 pm - 4:00 pm | | SESSION 2: Public Health: Tracking pathogens with epidemic potential Epidemic enteroviruses: diagnostics and control <i>Professor Peter McMinn, University of Sydney</i> |
| 4:00 pm - 4:30 pm | | <i>Salmonella typhimurium</i> MLVA typing for rapid outbreak detection <i>Dr Qinning Wang, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 4:30 pm - 5:00 pm | | DNA fingerprinting of <i>Mycobacterium tuberculosis</i> in NSW: 5 years' experience <i>Peter Jelfs, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 5 : 3 0 p m | Welcome Reception (Foyer) | |

FRIDAY, May 1, 2009

| | | |
|---------------------|--|---|
| 8:00 am - 9:00 am | REGISTRATION (Westmead Education & Conference Centre Foyer) | |
| 8:30 am - 5:00 pm | Industry Trade Display Open (Westmead Education & Conference Centre Foyer) | |
| 9:00 am - 9:50 am | | Loewenthal Auditorium SESSION 3: Sequencing-based identification of pathogens Sequencing based diagnostics in a clinical laboratory <i>Professor Theo Sloots, Sir Albert Sakzewski Virus Research Centre, Royal Children's Hospital, Brisbane</i> |
| 9:50 am - 10:30 am | | Molecular markers of antibiotic resistance in Asia - New realities <i>Professor Margaret Ip, The Chinese University of Hong Kong</i> |
| 10:30 am - 11:00 am | Morning Tea (Foyer) | |

| | |
|---------------------|--|
| 11:00 am - 11:30 am | Comparative genomics for clinical diagnostics: Triumph of hope over evidence? <i>Dr Vitali Sintchenko, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 11:30 am - 12:00 am | 16S rDNA gene sequencing and alternatives: Westmead experience <i>Dr Neisha Jeffreys, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 12:00 am - 12:30 pm | Molecular barcoding and species definitions for pathogenic fungi and <i>Nocardia</i> <i>Dr Sharon Chen, Centre for Infectious Diseases and Microbiology, Westmead</i> |
| 12:30 pm - 1:30 pm | Lunch (Foyer) |
| 1:30 pm - 2:00 pm | Next generation DNA sequencing for infectious disease research and control <i>Speaker TBA, Australian Genomics Research Facility, Melbourne</i> |
| 2:00 pm - 2:30 pm | Genome wide analysis of <i>Bordatella pertussis</i> in Australia <i>Dr Ruiting Lan, University of New South Wales</i> |
| 2:30 pm - 3:00 pm | Molecular profiling of hospital-acquired <i>Clostridium difficile</i> <i>Dr Fanrong Kong, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 3:00 pm - 3:30 pm | Afternoon Tea (Foyer) |
| 3:30 pm - 4:00 pm | SESSION 4: Molecular diagnostics for infection control Rapid screening for MRSA colonisation and infection <i>Dr Matthew O'Sullivan, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 4:00 pm - 4:30 pm | Markers of resistance in gram-negative bacteria - 3 years of experience <i>Lee Thomas, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| 4:30 pm - 5:00 pm | Metagenomics: New age of molecular diagnostics? <i>AIProfessor Jon Iredell, Centre for Infectious Diseases and Microbiology, Westmead Hospital</i> |
| | Close |

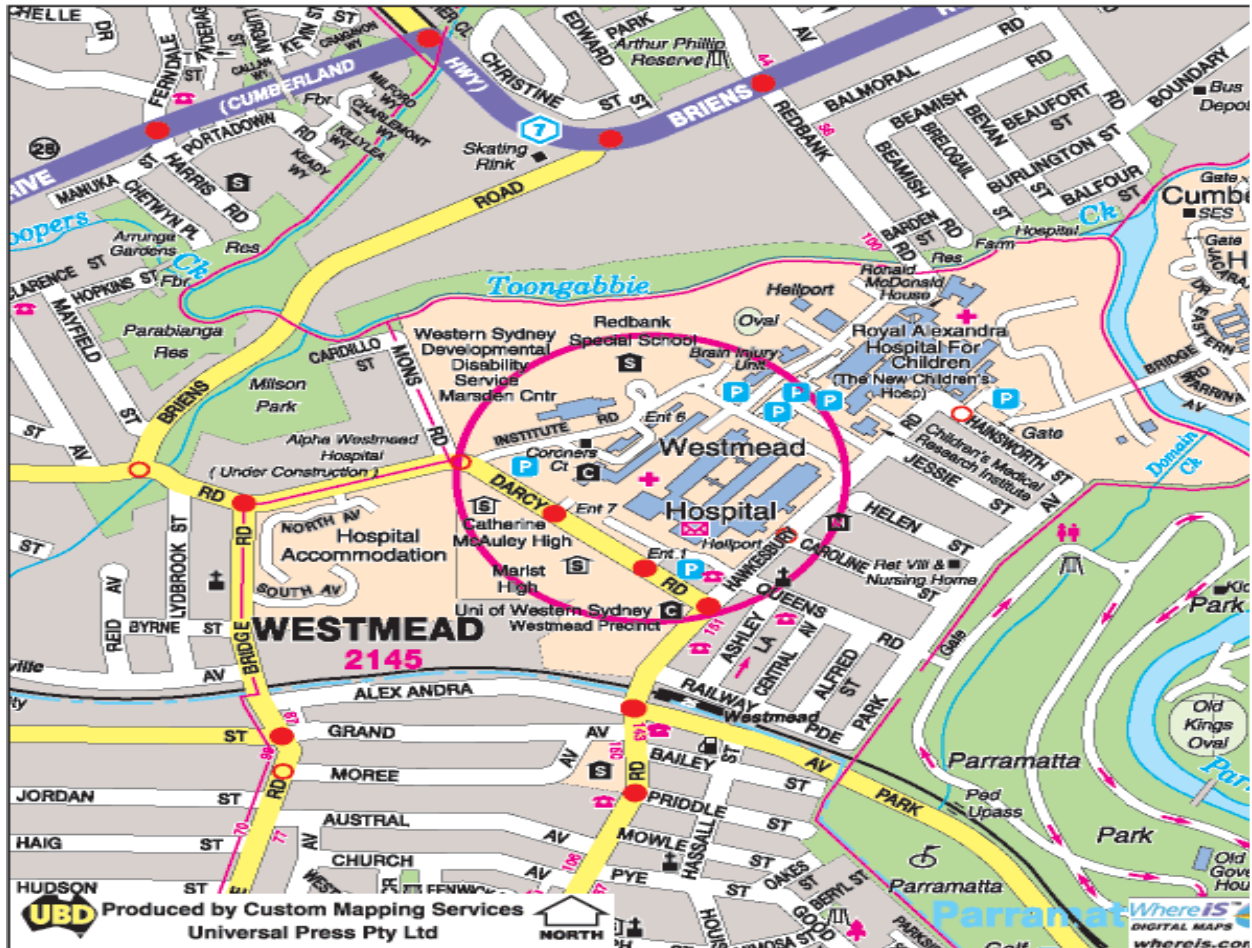
Laboratory Practical Demonstration

Venue: Centre for Infectious Diseases and Microbiology, Level 3, ICPMR, Westmead Hospital

SATURDAY, May 2, 2009

| | |
|---------------------|---|
| 8:30 am - 9:00 am | Registration (CIDM Reception, ICPMR) |
| 9:00 am - 11:00 am | <p>SESSION 5: Practical demonstrations in the CIDMLS</p> <p>Demonstrators: Dr Neisha Jeffreys Peter Jelfs Anna Lau Dr Matthew O'Sullivan Lee Thomas Dr Qinning Wang</p> <p>Theme: Sequencing based identification and fingerprinting of pathogens</p> <p>Demonstration of robotics for automated nucleic acid extractions. PCR demonstrations (PCR set up, optimisation, multiplexing, analysis and data interpretation). Real-time PCR instrumentation. Standard operating procedures and troubleshooting.</p> |
| 11:00 am - 11:30 am | Morning Tea Break |
| 11:30 am - 1:30 pm | <p>Part 1. Identification of bacteria using sequencing of 16S rRNA gene. Software packages for assay design, sequence alignment and annotation.</p> <p>Part 2. Genotyping of MRSA using SNP based MLST and <i>spa</i> typing in a hospital lab. Typing nomenclature. Real-time PCR implementation, software for type designation, examples of MRSA clusters at Westmead.</p> |
| 1 : 0 0 p m | Closing Remarks |
| | Lunch |

Map of Workshop Location



Workshop Location

Lowenthal Auditorium, Westmead Education & Conference Centre, Westmead Hospital
Cnr Hawkesbury & Darcy Roads
Westmead, Sydney, NSW 2145

Australia

Hospital Main Switch: (612) 9845 5000

http://wsahsnet/maps/westmead_public.pdf



Transport

The following links may be helpful in finding public transport to Westmead:

Transport Infoline <http://www.131500.info/newjourney.asp> or Cityrail Timetable information <http://www.cityrail.info/timetable/index.jsp>

For more information on public transport, visitor guides and information on Sydney, please visit <http://www.cityofsydney.nsw.gov.au>



Parking

Limited car parking is available on site for \$6.00 per day. Please ensure you have the correct change in coins only.



Special needs

This meeting is accessible to all attendees. Please notify Lou Orszulak at Lou.Orszulak@swahs.health.nsw.gov.au