



Victorian News

The Australian Society for Microbiology VIC Branch Newsletter

June 2016, Vol 490

Victorian Branch ASM:

The Australian Society for Microbiology
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All notices should be emailed to:
klwaller@unimelb.edu.au

Submission Deadline: 4th of the Month

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Find us on Facebook: <https://www.facebook.com/groups/250340155042466/>

**ASM Victorian Branch and ASM Food
Microbiology SIG are pleased to present**

Food contamination, outbreaks and impacts to industry

Join us for an evening of presentations discussing
some of the most significant foodborne disease
outbreaks and contaminations in Australia and New
Zealand, with presentations from:

Marion Easton – Hepatitis A outbreak linked to contaminated berries

Nectaria Tzimourtas – Victorian outbreak linked to contaminated bath milk

Narelle Fegan – Impacts of an *E. coli* outbreak linked to fermented meats

Anne Astin – *Clostridium* contamination of whey protein concentrate

DATE: Tuesday June 21st, 2016

**TIME: 6:15pm for finger food & refreshments, presentations begin at
7:00pm**

**VENUE: Ground Floor Auditorium, Peter Doherty Institute for Infection and
Immunity, Corner Grattan and Elizabeth Streets, Melbourne**

COST: Free for ASM members

\$40 non-ASM members, \$15 non-ASM student members

For catering purposes please RSVP for this event by 5pm Friday June 17th 2016

via: <https://www.trybooking.com/LKCO>

For further details contact Ed Fox at: edward.fox@csiro.au

Save the Dates

2016 Bi-State Conference, Victoria / Tasmania

Friday 25th / Saturday 26th November 2016

**Peppers Seaport Hotel,
Launceston TAS**



What you can expect:

- A diverse and engaging scientific program of invited speakers at a picturesque location
- Great networking opportunities
- Catering, with an optional dinner opportunity on Friday night

Poster Presentations: Would you like to present a poster at Bi-State? If so, contact Dr Ed Fox (edward.fox@csiro.au) for abstract and application instructions. **Abstract submissions close: August 29th 2016.**

Enquires:

Christine Seers (caseers@unimelb.edu.au), or
Karena Waller (klwaller@unimelb.edu.au)

Southern News

Event Report

Proudly sponsored by:

ThermoFisher
S C I E N T I F I C

Southern News this year was held at Monash Health on Tuesday 24th May. The evening was sponsored by ThermoFisher with food provided by Zouki catering.

Over 70 people from all levels of microbiological experience took advantage of the opportunity to listen to great talks, enjoy good food and mingle with their peers and colleagues.

The night started with a welcome from the Chair of the VIC ASM Branch, Karena Waller.

After the ASM VIC Branch AGM, five very interesting talks were given by the speakers. This event was chaired by Dr Carly Hughes from Monash Health. Thank you to the chair and speakers. Without them volunteering to participate in Southern News, there would be no “News from the hospital” event. A big thank you also goes out to those who worked in the background to make the event a success and to those who made the effort to come!

This year we congratulate Louise Sonneveld from Monash Health for winning the ASM membership prize at Southern News!

The abstracts from all 5 talks, in order of presentation, can be found over page.

Report Prepared by: Helen Stefanos

Bacteria sans Frontieres (Bacteria without borders) – Delphine Domingue from Monash Health

Mycoplasma and *Ureaplasma* species related infections are notoriously difficult to identify and culture, given their lack of a cell wall and inability to Gram stain, as well as their fastidious culture requirements. They are likely underdiagnosed as causative agents of extrapulmonary and extragenital infections. The increasing use of PCR has aided recognition in causative roles in chorioamnionitis, pneumonia and neonatal infection but they remain infrequently attributed to as causes of septic arthritis, osteomyelitis and empyema. Diagnosis of these infections is important as it has significant implications on antimicrobial therapy, as lacking cell wall they are intrinsically resistant to beta-lactam antibiotics which are often the mainstay of empiric therapy.

We present a short case series of patients from Monash Medical Centre with significant isolates of *Mycoplasma* and *Ureaplasma* species. The first patient had an empyema which was resistant to conventional antibiotic therapy, and it was not until a fine anaerobic growth appeared that *Mycoplasma* species was entertained and eventually diagnosed. The second case had osteomyelitis, which cultured *Mycoplasma hominis*. The third case had a septic arthritis of a prosthetic joint which was culture negative, but diagnosed as *Ureaplasma urealyticum* infection following 16S ribosomal RNA sequencing.

These cases illustrate that a high degree of suspicion should be used by the microbiology laboratory to cultures from sites not traditionally associated with *Mycoplasma* or *Ureaplasma* species infections. Additionally, culture methods can be insensitive and molecular diagnosis such as PCR or 16S sequencing can aide in diagnosis and subsequent therapy.

A tube within a tube - Louise Sonneveld from Monash Health

Microsporidia cause a wide range of infections, primarily in those patients with advanced HIV but increasingly recognized in other immunocompromised and immunocompetent patients. Infection can be difficult to diagnose in the microbiology laboratory due to its intracellular nature and requirement for dedicated stains. We present an unusual case of a 50 year old woman post renal transplant who developed progressive failure of the transplant kidney. Initial biopsies were inconclusive and the patient continued to deteriorate. After one month of symptoms a third biopsy was performed and the anatomical pathologist noted small acid fast structures within tubulointerstitium, and centrifuged urine showed presence of Microsporidia. These were later confirmed as *Encephalitozoon cuniculi*. She responded to therapy with albendazole.

The identification of microsporidia in the urine was performed by light microscopy using a modified trichrome stain from a cytospin of the urine sediment. Microsporidian spores were seen having a specific transparent ovoid appearance, staining the walls bright pinkish red with distinct red-stained belt-like stripe positioned diagonally or horizontally within the spore. A fluorescent staining technique, calcofluor white, also proved the presence of microsporidia by expressing bluish-white oval halos around the spores. Definitive testing to species level was performed by electron microscopy and gene sequence analysis by PCR. This case serves to add to the spectrum of disease known to be caused by Microsporidia, and as a reminder that a high index of suspicion should be maintained in immunocompromised patients for unusual pathogens.

The Purple Case – Sumaiya Hussain from Austin Health

With a broad range of patients in a changing health system, we are seeing more and more unusual organisms isolated from significant infections. In order to understand and to keep track of these infections, our systems need to rapidly identify these organisms and provide susceptibility testing against them. We describe an unusual case with *Chromobacter* (a proteobacterium usually found in tropical and subtropical regions) from a septic 28-year-old male admitted to Austin Health. Our investigations included steps to identification of this bacterium, resistance detection and confirmation of resistance. This presentation outlines the need for the recognition of these organisms and available knowledge of resistance patterns. We conclude with a review of the literature of similar cases.

An Emerging Pathogen – Jenny Couper from Cabrini Hospital

We report a case study of a 97 year old man with a complex medical history including a TURP and chronic renal failure. He had a six month history of urinary symptoms with a raised white count and No growth on culture. Following presentation to the Emergency department, a heavy growth of a slow growing gram positive bacilli was isolated from his urine. This was subsequently identified as *Actinobaculum schaalii*, which is recognised as an emerging uropathogen, and has also been isolated from a variety of other sites. Following isolation of this organism, and appropriate antibiotics, no further specimens of urine have been received from this man.

Black and White – Anastasia Nidras from Melbourne Health

A 25 year old bone marrow transplant recipient was admitted to hospital with relapsed acute myeloid leukaemia. He was managed with high dose steroids and was given voriconazole as antifungal prophylaxis. The patient developed progressive bronchopneumonia despite broad spectrum antibiotic therapy. He subsequently suffered an intracerebral haemorrhage and passed away.

The specimens submitted for microbiological analysis were blood cultures, a sputum sample and a bronchial washing, which were purulent and bloodstained macroscopically. Fungal elements were observed on the direct examination of the respiratory samples using calcofluor white stain, dark field microscopy. Cultures read on day 1 had mixed upper respiratory tract flora including yeast. Cultures on day 2 had growth of a mould.

The mould grown on day 2 was cultured onto Sabouraud agar, was rapid growing and macroscopically had a suede texture with a grey to black colouration. A wet prep examination using lactofuchsin revealed a septated hyaline mould with basally swollen flask shaped anellides with conidia born both singly and in clusters. The conidia were single celled and ranged from approximately 3-5µm with smooth thin cell walls. The characteristic features of the basally swollen anellides and its inability to grow on demasel agar due to inhibition by the cyclohexamide activity led to its identification as *Lomentospora prolificans* (formerly known as *Scedosporium prolificans*). The mould was submitted to the National Mycology Reference Laboratory for confirmation of species and antifungal sensitivity testing. The testing was done using the Sensititre YeastOne assay and the organism exhibited extremely high MICs to all tested antifungal agents. Terbinafine was also tested via disc diffusion and gave an intermediate result. Currently there are no established guidelines for the treatment of *Lomentospora prolificans* and infection with this organism remains a management challenge for immunosuppressed patients with underlying diseases.

Visiting Speakers Program

Do you know of an outstanding speaker coming to Australia?

If so, consider them for the Visiting Speakers Program (VSP).

Further information about the VSP and the speaker recommendation form can be found at:

<http://www.theasm.org.au/events/visiting-speakers-program/>

Alternatively, contact Catherine Satzke (catherine.satzke@mcri.edu.au), who is the VSP Coordinator for the ASM VIC Branch.



ASM History SIG – Column

Today the issue of quarantine is still very relevant. Note the recent court case regarding the dogs, Boo and Pistol, belonging to Johnny Depp and Amber Heard.

The New Quarantine Act [post Federation] did not come into force until July 1909, when all of the quarantine stations Australia-wide were taken over by the Commonwealth. However the actual transfer of individual stations did not occur immediately.

ASM Inc is putting together a together a permanent microbiology display for the Point Nepean Quarantine Station.

Do you have any historical microbiological items to donate to the ASM History SIG for this ASM Inc display? If so, please contact Dr Di Lightfoot (dlight6@bigpond.com)

ASM memorabilia:

If any ASM members have significant ASM memorabilia that they would like to donate to the ASM archives or would like to suggest topics suitable for possible symposia at future ASM Annual Scientific Meetings, please send details of the memorabilia or suggested symposia topics to:

History SIG convener
c/o Australian Society for Microbiology Office
9/397 Smith Street
Fitzroy VIC 3068

NEW FRONTIERS

3-6 July 2016
PERTH CONVENTION
& EXHIBITION CENTRE

**Antimicrobial resistance:
Impact, Mechanisms and Solutions to a growing public health risk!**



Professor Peter Hawkey
University of Birmingham
"The flow of antibiotic resistance genes from the environment to the patient and back!"

Dr Hawkey will explain the importance of antimicrobial resistance in clinical diagnostics and public health. He heads a symposium session with our colleagues from the Australian Society of Antimicrobials on policies of antimicrobial stewardship and surveillance.



Professor Dan Andersson
Uppsala University
"Reversibility of antibiotic resistance"

Dr Andersson provides an analysis of the factors that influence the dynamics of the evolution of antibiotic resistance development. He heads a symposium session on the mechanisms of antibiotic resistance.



Dr Brian Conlon
Northeastern University, Boston
"Staphylococcus aureus persists - How they form and how to kill them"

Dr Conlon leads our discussion on how an improvement of our knowledge of bacterial physiology can improve drug discovery. He leads a symposium session on new drug discovery.

Visit the conference website for details on the scientific program, awards, new initiatives, student activities, workshops and more!

IMPORTANT DATES
Oral Abstract deadline April 1st

www.theasm.org.au



Perth, WA

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3-6 July 2016
PERTH CONVENTION
& EXHIBITION CENTRE

The Good, the Bad and the Useful: Microbes in healthy ecologies, disease and industry



Assoc Prof Susan Lynch
University of California San Francisco
“Early-life exposures, the gut microbiome and allergic asthma development in childhood “

Assoc Prof Lynch explores the role of the human microbiome in shaping a healthy life. She leads the symposium session “Ecology of the gut and healthy living”. Further sessions investigate the theme of a healthy ecosystem, climate change and industrial applications!



Professor Victor Nizet
University of California San Diego
“Unexpected functions of three classical Group A streptococcal virulence factors to modulate host immunity”

Professor Nizet has extensively assessed the pathogenic mechanisms of Streptococcus and leads a discussion on microbial pathogenesis, physiology and infection and immunity.



Assoc Professor Anna Durbin
Johns Hopkins
“Vaccines for Dengue: Where are we and where do we need to go?”

Assoc Prof Durbin focusses on evaluating experimental vaccines in human clinical trials. She heads the themes of infectious diseases, treatment and vaccine discovery.

Visit the conference website for details on the scientific program, awards, new initiatives, student activities, workshops and more!

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NEW FRONTIERS

3-6 July 2016

PERTH CONVENTION
& EXHIBITION CENTRE

2016 ASM Public Lecture

5pm Sunday 3rd July 2016

“WHO global alerts and the traveller!”



Dr Chris Baggoley AO Chief Medical Officer, Australia

Dr Paul Effler Communicable Disease Control Directorate, WA Dept. of Health

Professor Tania Sorrell Marie Bashir Institute & Westmead Millennium Institute

This is a FREE event for the public

<https://www.trybooking.com/Booking/BookingEventSummary.aspx?eid=197885>

Venue:

Perth Convention & Exhibition Centre

21 Mounts Bay Rd

Perth, WA 6000





NEW FRONTIERS

3-6 July 2016
PERTH CONVENTION
& EXHIBITION CENTRE

Sponsored by CSL Ltd, the Bazeley award recognises a distinguished researcher who has made a significant contribution to the field of immunization

2016 Bazeley Orator

Professor Ulrike Holzgrabe

University of Würzburg, Germany

“New drugs against old bugs – old approaches and new concepts”



Professor Holzgrabe is currently the Chairperson of Pharmaceutical and Medicinal Chemistry, Institute of Pharmacy & Food Chemistry and member of the German Pharmacopoeia Commission and member of the scientific board of the Federal Institute of Drugs and Medical Devices.

Visit the conference website for details on the scientific program, awards, new initiatives, student activities, workshops and more!

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NEW FRONTIERS

3-6 July 2016
PERTH CONVENTION
& EXHIBITION CENTRE

The Rubbo Oration and evening reception recognizes and celebrates outstanding career achievements in microbiology

The award honors Professor Sydney Rubbo's contribution to Australian Microbiology and is made possible with the continued support of the Rubbo Trust – University of Melbourne

2016 Rubbo Orator

Professor Anne Kelso AO

CEO, National Health and Medical Research Council

“Balancing national research needs – is there a bug in the system?”



This is a FREE EVENT for conference delegates
For NON-DELEGATES a \$75 TICKET can be purchased at

<https://www.trybooking.com/LLJU>

[For event details visit www.theasm.org.au](http://www.theasm.org.au)

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The Australian Society
for **Microbiology** 
bringing Microbiologists together

EduCon 
Microbiology Educators' Conference



July 2nd 2016
University of Western
Australia

As with previous years, ASM 2016 will be co-run with
EduCon 2016: Microbiology Educators' Conference

ASM EduCon brings together Microbiology educators from across Australia who share a common goal to advance the teaching and learning of Microbiology. This year's conference will focus on new technologies and interactive learning. See over-page for registration details and the EduCon Program.

VIC Branch Educators' Award: As part of an initiative to support Victorian based Microbiology educators ASM VIC Branch would like to announce a VIC Branch Educators Award of \$500 to support travel/registration costs of attending the 2016 meeting. For an application form or more information on the conference or how to apply for the travel award please contact A/Prof Priscilla Johanesen (priscilla.johanesen@monash.edu).
Closing date for applications: Friday June 17th 2016.

Call for Poster Presentations at EduCon: Would you like to present your educational research at EduCon? If so, please contact Dr Karena Waller (klwaller@unimelb.edu.au) for abstract and application instructions.
Abstract submissions close: Friday June 17th 2016.





2nd July 2016

(Preceding the ASM Annual Scientific Meeting)

Venue: E-Technology Suite, School of Pathology and Laboratory
Medicine, Queen Elizabeth II Medical Centre, Western Australia

Conference program: please see below

Registration:

- ASM Members: \$100
- Non Members: \$150
- Speaker and Students registration: \$50

Inclusive for registrants are afternoon tea and lunch.

EduCon registrants will be able to attend the opening session the ASM Annual Scientific Meeting and the welcome reception.

Poster Presentations at EduCon: A poster presentation will be held as part of the program in 2016. If you would like to present your educational research at EduCon, please contact Dr Karena Waller (klwaller@unimleeb.edu.au) for abstract and application instructions.

Abstract submissions close: June 17th 2016.

To register, please go to: <http://www.trybooking.com/KLEO>

For conference information contact Assoc. Professor Priscilla Johanesen (priscilla.johanesen@monash.edu)

Sponsored by:



**THE UNIVERSITY OF
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AUSTRALIA**

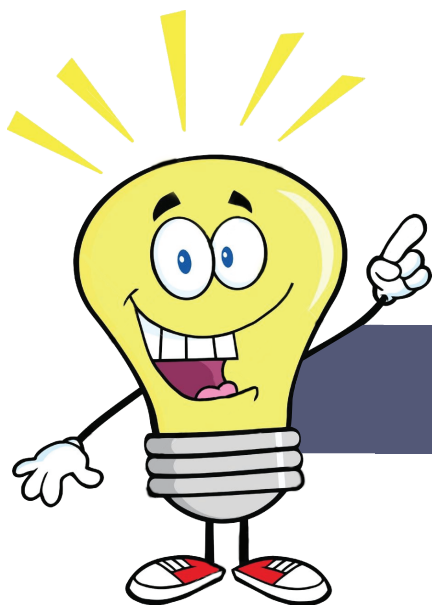


MONASH
University

Conference Agenda - 2016

Saturday, July 02, 2016

10:00 am to 10.30 am	Registration and Welcome (School of Pathology and Laboratory Medicine, UWA, Ground floor, M Block, QEII Medical Centre; includes Coffee/Tea)
10:30 am to 12.00 pm	<p>Session 1: Teaching Large Class Sizes</p> <p>Chair: Priscilla Johanesen (Monash University)</p> <p>Gail Dixon and Megan Lloyd (University of Western Australia) – <i>New technologies - the esuite for engaging large class sizes</i></p> <p>Jack Wang (University of Queensland) – <i>Developing a hands-on practical exam for large-scale Microbiology course</i></p>
12.00 pm to 1:30 pm	Lunch and Poster Session, Chair: Karena Waller (University of Melbourne)
1.30 pm to 3:00 pm	<p>Session 2: Interactive Learning in the Classroom</p> <p>Chair: Helen Cain (The University of Melbourne)</p> <p>Kirsten Schliephake (Monash University) – <i>Flipping the Classroom</i> <i>This session will be interactive and will involve discussion and brainstorming of strategies used to engage students in the classroom</i></p>
3:00 pm to 3:30 pm	Break: Afternoon Tea
3:30 pm to 4:00 pm	<p>Session 3: Employability</p> <p>Chair: Josie Lategan (University of the Sunshine Coast)</p> <p>Ipek Kurtboke (University of the Sunshine Coast) – <i>Designing laboratory practicals in line with the needs of regional industries to enhance graduate employability</i></p>
4:00 pm to 5:00 pm	<p>Session 4: Active learning and technologies in teaching</p> <p>Chair: Meredith Hughes (Monash University)</p> <p>Danilla Grando (RMIT University) – <i>Active learning strategies in the lecture space</i></p> <p>Helen Agus (University of Sydney) – <i>Teaching medical microbiology in the biosafety laboratory using electronic notebooks.</i></p>



AIMS VICTORIAN BRANCH PRESENTS:



BRAVE NEW WORLD

INNOVATION IN DIAGNOSTIC TESTING

Multidisciplinary Scientific Workshop

WHEN

Saturday, 16th July, 2016.

9:00am-4:15pm

WHERE

Cabrini Health,
The Auditorium.

183 Wattletree Rd, Malvern, 3144.

PROGRAM

Kerrie Scott-Dowell	Histology – title TBA
Dr. Darren Jardine	New HPV testing model – title TBA
Dr. Meg Wall	SNP Arrays – title TBA
Marc Potten (ESL Bioscience)	Digital blood film microscopy
Cara McSweeney (Roche)	
Roxane Legaie	What is Bioinformatics?
Dr. Amy Crowe	New applications of MALDI-TOF – title TBA
Natalie Caldwell	BioArray Red Cell Genotyping
Nicola Flowers	NIPT (non-invasive prenatal testing)
Dr. Asif Alam	Mass spectrometry for haemoglobinopathies

PLUS case studies and short talks from young scientists:

Cristina Bitzilis, Amanda Hong, Jeremy Wells and Samantha Drummond

COST/REGISTRATION

Members: \$55, Non-members: \$75, Students: \$25

(Includes lunch and refreshments)

Register at: www.aims.org.au, **RSVP:** 13th July 2016

Attendance contributes to APACE points.

Enquiries: Patricia Szczurek

E-mail: patriciaszczurek@gmail.com

Advertise in the ASM VIC Branch Newsletter!

Would you like to advertise your event, job vacancy or other news item in our newsletter?

Advertising rates are:

Not-for-profit adverts: free of charge

For-profit adverts: \$50 per advert

If so, please contact Karena Waller
(klwaller@unimelb.edu.au)

ASM VIC CALENDAR 2016

When planning meetings, please book dates with Karena Waller
(Phone: (03) 8344 0045, Email: klwaller@unimelb.edu.au)

- **Food Contamination, Outbreaks and Impacts to Industry – 21st June 2016, The Doherty Institute, Melbourne**
- **ASM EduCon Microbiology Educators' Conference, Perth 2016 – 2nd July 2016, Perth**
- **ASM Annual Scientific Meeting and Trade Exhibition, Perth 2016 – 3rd – 6th July 2016, Perth Convention and Exhibition Centre, Perth**
- **AIMS VIC Branch presents Brave New World – Innovation in Diagnostic Testing – July 16th 2016, Malvern VIC**

**Submission Deadline for July ASM Victorian News:
July 4th 2016**

Email submissions to: klwaller@unimelb.edu.au or
asmvicbranch@gmail.com