



Victorian News

The Australian Society for Microbiology VIC Branch Newsletter

May 2016, Vol 489

Victorian Branch ASM:

The Australian Society for Microbiology
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Submission Deadline: 4th of the Month

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

Southern News

Tuesday 24th May 2016

Proudly sponsored by:

ThermoFisher
S C I E N T I F I C

Confirmed Speakers:

- Carly Hughes & Delphine Domingue (Monash Health) presenting “*Bacteries Sans Frontieres (Bacteria without Borders)*”
- Louise Sonneveld (Monash Medical) presenting “*A tube within a tube*”
- Sumaiya Hussain (Austin Health) presenting “*The Purple Case*”
- Jenny Couper (Cabrini hospital) presenting “*An Emerging Pathogen*”
- Nga Nguyen (St. Vincent Hospital) presenting “*TBA*”
- Anastasia Nidras (Royal Melbourne Hospital) presenting “*Black and White*”

Chairperson: To be advised

Where: Lecture Theatre 1, Monash Medical Centre, Clayton

When: 6.15pm to 9.30pm on Tuesday 24th May, 2016

Food/drinks served from 6.15pm, VIC Branch AGM at 7.00pm, presentations from 7.15pm

Cost: Free event for ASM Members (Student or Full Members)

\$40 - Non-ASM Member

\$15 - Student Non-ASM Member

For catering purposes please RSVP for this event by 5pm Friday May 20th 2016

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

For further details contact Karena Waller at: klwaller@unimelb.edu.au or

asmvicbranch@gmail.com



Zika Virus News



Event report

On the evening of Wednesday 20th April, approximately 60 people attended in the Zika Virus (ZV) News event presented by 6 Doherty scientists who covered different facets of the epidemic.

Associate Professor Jason Mackenzie chaired and indicated that Doherty scientists have the multidisciplinary expertise to drive the response to deal with this virus. Jason presented the first talk- '**The Virus and Immunity**'. ZV is a single-stranded RNA virus of the *Flaviviridae* family, genus *Flavivirus* and sits close to Dengue on the family tree. Little is known about the virus. The genome is composed of coding for structural and non-structural proteins. Research is being conducted for antiviral drugs targets.

Dr. Mike Catton discussed- '**History and Ecology**'. ZV was discovered in 1947, isolated from a Macaque in the Zika Forest, Uganda. Transmission to humans occurs primarily through the bite of an infected *Aedes africanus* mosquito. At that time the seroprevalence in the population was around 6.1%. Human infection became widespread in Africa then migrated to South East Asia. The Asian strain is transmitted mainly by *Aedes aegypti*. Sequencing data indicates 2 lineages exist; the point of divergence precipitated the successful jump to humans. The first human case was in 1952. In 2007, the first stage of the epidemic was noted in Yap, Micronesia and later spread to South America.

In Australia, lab confirmed cases include: 52 in the period 2012 to 2016; 28 in 2016 (14 Qld). Pacific Islands are the source for Australia. Non-vector borne spread has occurred via blood, urine, the perinatal route, sexual contact, and transfusion (potentially).

Ms. Kylie Carville covered '**Epidemiology**' and started in Yap then discussed further spread. A study in Yap found that 73% of the population were infected but only 18% experienced any clinical symptoms. The population/number of cases in Yap, Polynesia and Brazil are 11k/220, 270k/4k, 206 mill/3.1 mill. The 20-fold increase in population between Yap and Brazil highlighted the limits of detection where ZV cases and rare conditions such as Guillain-Barre Syndrome, perinatal transmission and microcephaly only became obvious in Brazil. The end of 2014 marked the beginning of the outbreak in Brazil and has also spread to 30 other countries in the Americas. ZV differs from other Flavivirus in that it crosses the placenta and causes microcephaly but exactly how this occurs is unknown.

This year, on 1st February, 2016, WHO declared a Public Health Emergency of International Concern (PHEIC) and on 13th April 2016 CDC declared that ZV was causal in birth defects.

Dr Julian Druce described '**Laboratory Diagnosis**' for ZV. Following the incubation period and onset of symptoms, ZV is detectable in blood for up to a week and in urine for longer, 12 days. After this period, diagnosis of ZV is performed by serological testing for IgM and IgG. Molecular assays targets the NS5 region semi-conserved in *Flavivirus*; The testing algorithm includes a Pan *Flavivirus* PCR and, if positive, specific *Flavivirus* PCR test for identification is performed e.g. Zika, Dengue, Chikungunya and West Nile. Serology results are validated by a neutralisation test. In Victoria, 6 cases of ZV have been confirmed since 2012 (sex, age/history/date): (i) F,54/Indonesia/May 2012; (ii)M,27/monkey bite in Bali/March2013; (iii)F,49/Cook Islands; (iv)F,29/pregnant/Feb2016; (v) F,39/-/Feb2016; (vi) F,54/-/April2016.

Dr. Irani Thevarajan gave an overview of the '**Clinical**' picture. Most ZV infections are asymptomatic. The disease symptoms overlap with those of other Flaviviruses-Dengue, Chikungunya- and include mild fever, arthralgia, and rash; hospitalisation is rare. The incubation period is 3-14 days. In 60% of cases, non-purulent conjunctivitis occurs. A distinguishing manifestation is microcephaly where head size for age in affected neonates is 2 to 3 standard deviations smaller than the median. CDC has declared ZV as causal for microcephaly. ZV has been isolated from brain tissue and amniotic fluid, however, the mechanism is unclear.

CDC has declared microcephaly causal. Guillain-Barre Syndrome occurs 6 days following infection and some cases required ventilation, 40% permanently. For reasons of safety, abstinence is recommended to avoid transmission and, for pregnant women to suspend travel to endemic areas.

Professor Cameron Simmons related '**Interventions**' which included 4 strategies. One strategy is manufacture of a vaccine to prevent disease and three approaches to reduce the mosquito population and consequently minimise the risk of infection to humans. The 3 mosquito 'culling' strategies include (1) kill mosquitos fogging with insecticide but this is considered unsustainable (2) interruption to the life cycle via a lethal gene and mosquitoes do not develop beyond the wriggler stage and (3) infection with *Wolbachia* spp. which limits the ability of mosquito to replicate.

Written by: Mary Valcanis

**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)

Victorian Clinical Serology and Molecular Special Interest Group Meeting

Program

- **HPV warts n'all Update**

Tony Field
Department Head Molecular
Australian Clinical Labs, Melbourne

- **NRL Pilot QA Programmes**

Liza Cabuang
Deputy Team Leader
NRL Quality Assurance
NRL, Melbourne

Date: Thursday 12th May 2016

Time: 6pm for a 6.30pm start

Light refreshments will be provided

Where: Meeting Rooms, 1st floor

Australian Red Cross Blood Service

100-154 Batman Street, West Melbourne 3003

(Entrance at Adderley Street corner)

Please RSVP by Friday 6th May to Megan Wieringa

megan.wieringa@monashhealth.org

Ph. 95944583

Hope you can make it!

Are you Interested in **Antibiotic Resistance?**

Then check out the recent
Catalyst episode screened on the
ABC:

<http://www.abc.net.au/catalyst/stories/4446258.htm>

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.

AGM of the ASM VICTORIAN BRANCH COMMITTEE

The Victorian Branch will be holding its Annual General Meeting on Tuesday 24th May 2016 at Monash Medical Center in conjunction with Southern News, and is calling for nominations or re-nominations to the committee. The commitment includes attending a regular meeting once a month and assisting with the organization of Branch activities.

If you are interested in becoming involved, contact Karena Waller (Chair) at klwaller@unimelb.edu.au or asmvicbranch@gmail.com

Karena Waller
Victorian Branch Chair

I wish to nominate for the ASM Victorian Branch Committee

NAME: _____

CONTACT DETAILS: _____

SIGNATURE: _____

Proposed by

NAME _____ (MASM or FASM)
SIGNATURE _____

Seconded by

NAME _____ (MASM or FASM)
SIGNATURE _____

Please scan and email to: Karena Waller (ASM VIC Branch) at: klwaller@unimelb.edu.au



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 the 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

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



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A vibrant and beautiful city located on the banks of the majestic Swan river. Come stay with us in WA and experience our world class wineries and restaurants, stunning national parks, beaches and much more..



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!

IMPORTANT DATES
Oral Abstract deadline April 1st

www.theasm.org.au



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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: May 30th 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: May 30th 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@unimleb.edu.au) for abstract and application instructions.

Abstract submissions close: April 29th 2016.

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

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

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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>

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)

- **Southern News and AGM – 24th May 2016, Monash Medical Centre, Clayton**
- **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**

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

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