

The Australian Society for Microbiology VIC Branch Newsletter

July 2017, Vol 502

In this Issue:

- ASM Contact Details
- ASM Vic Branch Vet Micro News Event Report
- ASM Vic Branch Visiting Speaker Program Event Event Report
- ASM Vic Branch Event Food Microbiology and One Health Register Now
- 2017 ASM Member Awards
- Tri-State Scientific Meeting & Parasitology Master Class Register Now
- AIMS/ASM Vic Branch Joint Conference Register Now
- ASM History SIG Column
- Visiting Speakers Program (VSP)
- Micro News and Views
- Micromon Molecular Biology Techniques Course Register Now
- ASM VIC Calendar

Submission Deadline: 4th of the Month

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

Contact Details

Victorian Branch ASM:

The Australian Society for Microbiology

Victorian Branch

c/o: 9/397 Smith Street, Fitzroy VIC 3065 Weblink: http://victoria.theasm.org.au/ Email: klwaller@unimelb.edu.au or

asmvicbranch@gmail.com

ASM National Office:

9/397 Smith Street, Fitzroy VIC 3065

Tel: 1300 656 423 Fax: 1300 655 841

Email: admin@theasm.com.au
Weblink: www.theasm.org.au

ABN 24 065 463 274

Victorian Branch Committee:

Chair: Karena Waller

Email: klwaller@unimelb.edu.au

Tel: +61 3 8344 0045

Secretary: Christine Seers

Email: caseers@unimelb.edu.au

VSP Coordinator: Catherine Satzke Email: catherine.satzke@mcri.edu.au

Student Affairs: Karena Waller Email: klwaller@unimelb.edu.au

Tel: +61 3 8344 0045

Edward Fox

Email: Edward.Fox@csiro.au

Jaelyne Birrell

Email: jaelyne.birrell@gmail.com

Neil O'Brien-Simpson

Email: neil.obs@unimelb.edu.au

Deputy Chair: Catherine Satzke

Email: catherine.satzke@mcri.edu.au

Treasurer: Priscilla Johanesen

Email: priscilla.johanesen@monash.edu

Tel: + 61 3 9902 9153

Newsletter Editors: Jacqueline Heath

Email: jhea@unimelb.edu.au

Catherine Butler

Email: cbutler@unimelb.edu.au

Mary Valcanis

Email: valcanis@unimelb.edu.au

Seema Kanade

Email: seema.kanade@dorevitch.com.au

Sarah Baines

Email: bainess@unimelb.edu.au

All notices should be emailed to: jhea@unimelb.edu.au or cbutler@unimelb.edu.au



Vet Micro News Event Report



From left: Dr Stacey Lynch, A/Prof Joanne Devlin, Dr Anke Wiethoelter and Dr Kim Halpin.

On June 13th 2017 the ASM Victorian Branch hosted the Vet Micro News event at the Bio21 Institute, Melbourne. With more than 30 members and non-members in attendance, the evening started as many branch events do with networking and nibbles, catered by Ecco Catering. What followed were four fantastic talks covering a variety of veterinary microbiology topics. At the end of the presentations there was a great panel question time which generated a robust discussion. A warm thank you is extended to the presenters for their time and sharing their knowledge, and to Mary Valcanis, Catherine Butler and Jacqueline Heath for their organisational roles, making the night a success.

A summary of the presented topics is found below in order of presentation:

Dr. Stacey Lynch (AgriBio) – "Upscaling vector screening for arbovirus detection – Reflections from the 2016/17 Victorian mosquito-borne arbovirus surveillance program"

Dr Stacey Lynch is a Senior Research Scientist with Agriculture Victoria, Department of Economic Development, Jobs, Transport and Resources, based at AgriBio, the Centre for AgriBioscience, Bundoora. Stacey coordinates and manages the invertebrate and non-human vertebrate surveillance component of the Victorian Arbovirus Disease Control Program, a Department of Health and Human Services funded initiative to reduce locally acquired human arboviruses in Victoria.

Abstract: The Victorian Arbovirus Disease Control Program is a Victorian Department of Health & Human Services funded program aimed to reduce the incidence of human arbovirus infections, such as Ross River virus and Murray Valley encephalitis virus, in Victoria. Vector monitoring, arbovirus detection in mosquitoes and sentinel surveillance in non-human vertebrates contribute to this program. This presentation will describe the vector and arbovirus population dynamics following the Spring 2016 flood event, and molecular initiatives, such as metabarcoding and whole-genome sequencing, that are being implemented to improve surveillance effectiveness.

A/Prof. Joanne Devlin (UoM) – "What's in Australian wildlife?"

A/Prof Joanne Devlin is based in the Melbourne Veterinary School. Her research interests are in infectious diseases of wildlife, domestic animals and livestock. She is particularly interested in diseases that are transmitted between species, including diseases that are transmitted from animals to people.

Abstract: Australian wildlife can be hosts to a variety of different infectious agents that are of significance to the wildlife themselves, or to other animals and also people when these agents move between different species. Recently we have studied pathogens of public health or biosecurity significance in a range of different wildlife species, particularly native birds and marsupials. Some of our most recent work has focussed on pathogens (Salmonella, Campylobacter, Chlamydia, herpesviruses and other viruses) present in Australian native birds presenting to Healesville Sanctuary, as well as pathogens (Chlamydia, Koala Retrovirus, herpesviruses) present in Victorian koalas. Ongoing work is focussed on zoonotic pathogens present in possums in Melbourne and surrounds. This work helps to characterise risks to wildlife but also to veterinarians, wildlife carers and other people who are in contact with wildlife. Our work has revealed most zoonotic pathogens are present at a low prevalence but other pathogens are present at a very high prevalence. Examining the phylogenetic relationships between pathogens present in wildlife and other species provides information about potential transmission events. Our work has revealed evidence supporting complex interspecies transmission of beak and feather disease virus in Australian birds, and evidence supporting livestock-wildlife transmission of Chlamydia pecorum in Victorian koalas. Understanding the transmission of these pathogens ultimately allows appropriate control measures to be implemented.

Dr. Anke Wiethoelter (UoM) - "Of dogs and men - Brucella suis in Australia"

Anke is a veterinary graduate of the Free University of Berlin, Germany. Her current role as Lecturer in Veterinary Epidemiology (One Health) with the University of Melbourne involves research into infectious diseases at the wildlife-livestock-human interface as well as teaching in the areas of veterinary public health and evidence-based practice.

Abstract: Swine brucellosis – an infectious disease at the wildlife-domestic animal-human interface – threatens the health and well-being of wildlife, domesticated animal as well as human

populations. The disease-causing agent, *Brucella suis*, is known to be endemic in feral pigs (*Sus scrofa*) in Queensland and New South Wales. Consequently, feral pig hunting and dressing of carcasses has been identified as the most prominent risk factor for locally acquired human brucellosis in Australia so far. Emergence of canine brucellosis cases in New South Wales since 2011 however, has raised concerns regarding new zoonotic transmission pathways and risks, in particular to dog owners, their household members and veterinarians. Nevertheless, many knowledge gaps around the current extent, geographical distribution and true prevalence of *B. suis* in at-risk dogs and feral pigs persist. Collaborative research is currently underway to gain a better understanding of these factors as well as handling and hunting practices. This will help to assess risks involved for humans, dogs and the livestock industry.

Dr Kim Halpin (AAHL) - "Next Generation Sequencing for virus discovery"

Dr Kim Halpin is the leader of the veterinary investigations and epidemiology team at AAHL. A veterinary graduate from the University of Queensland, she completed her PhD on Hendra virus. Her postdoctoral appointment was at the Centres for Disease Control and Prevention in Atlanta, USA. In 2003 she moved to Geelong and worked at AAHL in a research role. In 2009 she moved to Singapore, working with Life Technologies where she lead the Animal Health and Food Safety Research and Development team, developing molecular diagnostic tests for pathogen detection. In January 2014, she returned to AAHL.

Abstract: Preceded by the molecular revolution, the genomic revolution has just begun. As its name suggests, it has as its focus, complete genomes. The exponential increase in DNA sequencing capabilities together with increased affordability is enabling scientists to pursue the holy grail of genomics, the \$1000 human genome. For those of us interested in infectious diseases, these enabling technologies are providing us with critical tools that are allowing us to push the boundaries of our pursuits. The new technologies enabling this will be discussed. Four cases of interest where next generation sequencing has identified a new pathogen are put forward: a rotavirus in pigeons, a parvovirus in horses, a bunyavirus in ticks and an orthobunyavirus in ducks.

Report written by Jacqueline Heath



Visiting Speaker Program Event Report

On Thursday July 6th ASM Victorian Branch were proud to host a double-bill Visiting Speaker Program evening in Ground Floor Auditorium, The Doherty Institute.

Two of the Plenary speakers from the ASM 2017 Annual Meeting recently held in Hobart came to Victoria to present other aspects of their research to an attentive audience of more than 40, members, student members and non-members alike. As usual food and drink were provided to members free of charge ensuring we were all in a relaxed mood for the following talks.

The first presentation was given by Dr Robin Patel, MD from The Mayo Clinic, Minnesota. Dr Patel presented interesting data relating to the challenges and new approaches that can be used to diagnose infection around prosthetic implants. This included new approaches to tissue sampling, using blood culture bottles to culture tissue samples in addition to plating and genomics for species identifications.

The second speaker was Assoc. Professor Christian Voolstra who provided a fascinating talk explaining the effects of temperature on coral bleaching events. Dr Voolstra showed images of beautiful coral habitats as well as the devastation now frequently observed in coral reefs worldwide. He demonstrated that corals as close as 100 m apart can have different microbiomes that affect tolerance to heat stresses. He also described the recently established (2009) King Abdullah University of Science and Technology (KAUST) in Saudi Arabia and explaining the benefits of a well-funded Institute to postgraduate training and advances in academic outcomes.



Professor Robin Patel, MD

Chair of the Division of Clinical Microbiology and a Consultant in the Clinical Microbiology and Infectious Diseases Laboratories at Mayo Clinic, USA

Topic: Diagnosis of Prosthetic Joint Infection

Associate Professor Christian Voolstra
Associate Professor, Marine Science
Biological and Environmental Science and Engineering Division, KAUST, Saudi Arabia
Topic: The Metaorganism Imperative - We Are Not Alone





The purpose of the Visiting Speaker Program (VSP) is to provide a mechanism by which presenters may be supported to visit a number of State Branches to present on topics of interest and relevance to the ASM membership. It may also be a means of providing an interface between the Society and the broader population, through media opportunities, public lectures or similar means that will enhance the reputation of the Society.

ASM Vic Branch looks forward to hosting VSP evenings in the future.

If you know of someone visiting our shores who would suit the VSP program, please do not hesitate to contact ASM National office

Mitchell Brown VSP Coordinator Australian Society for Microbiology, Inc. mitchell.brown@swahs.health.nsw.gov.au

Report written by Christine Seers



The Australian Society for Microbiology



bringing Microbiologists together

Tuesday 15th August 2017

Food Microbiology and One Health

Venue

Jean Falkner Tahija Theatre, Ground floor, Royal Dental Hospital of Melbourne, 720 Swanston Street, Carlton, Victoria.

Time

6:15pm food and drinks followed by talks from 7pm

Speakers including:

- > Prof Glenn Browning Antimicrobial use in food production animals
- > Dr Kari Gobius Antimicrobial resistance and food chains

Registration: https://www.trybooking.com/RCJG

Free for ASM Members! \$40 non-ASM members, \$15 non-ASM student members

Enquires: Ed Fox (edward.fox@csiro.au)



2017 ASM Member Awards

At the ASM Annual Scientific Meeting & Exhibition held in Hobart on the 2nd to 5th July 2017, the ASM President Roy Robins-Browne presented numerous awards to members of the society for their contributions to the field. Amongst recipients of the prestigious ASM awards in 2017 were several ASM Victorian Branch members. Our congratulations to the following Victorian Branch members:

- Honorary Life Membership of the Australian Society for Microbiology: Cheryl Power (University of Melbourne)
- New Fellows of the Australian Society for Microbiology: Anna Maria Costa (Royal Children's Hospital) and Dena Lyras (Monash University)
- Teachers Travel Award: Andrew Greenhill (Federation University)
- David White Excellence in Teaching Award: Karena Waller (University of Melbourne)
- Frank Fenner Award: Catherine Satzke (Murdoch Childrens Research Institute) and Hayley Newton (University of Melbourne)
- BD ASM Vic Branch Student Travel Award: Claire Gorrie (University of Melbourne)





From left: Cheryl Power receiving the Honorary Life Membership Award and Karena Waller receiving the David White Excellence in Teaching Award from Roy Robins-Browne





Left: Andrew Greenhill receiving the Teachers Travel Award from Roy Robins-Browne. Right: Hayley Newton and Catherine Satzke with their Frank Fenner Awards for distinguished contributions to microbiology in Australia.

Photos reproduced from https://www.facebook.com/AustralianSocietyForMicrobiology/



ASM Member Awards Apply Now

The ASM offers a variety of awards to its members. Take full advantage of your membership by applying now for one of the awards listed below with deadlines approaching. For more details and additional awards please refer to the National webpage http://www.theasm.org.au/awards/

- NZMS Postgraduate Research Travel Award Application due 31st August
- ASM Distinguished Service Award Nominations close 30th November



bringing Microbiologists together

www.theasm.org.au

What you can expect?

Tri-State meetings have been initiated and supported by ASM branches in SA, WA and NT for over 25 years. The aim is to bring delegates together in an intimate and unique environment and provide good food, social and networking opportunities. You can expect a varied and engaging scientific program presented by some of Australia's top microbiologists.

The Parasitology Masterclass began with its inaugural meeting in Tasmania in 2009, In this, the 6th Parasitology Masterclass, it aims to again provide an excellent blend of wet workshops, classroom teaching, and formal presentations.

What you need to know?

Registration

- Places may be strictly limited so we will encourage to book early and to avoid disappointment (when registrations open).
- You can register for one, or both. Registration for both provides great cost savings.
- Register your interest to receive updates and early meeting details.









The Victorian Branches of AIMS and ASM present a joint conference focusing on

Science in the Spotlight

Saturday 18th & Sunday 19th November 2017 at Vibe Hotel, Marysville VIC

What you can expect:

- A diverse and engaging scientific program focusing on current research, case studies and new technologies in the medical and microbiological sciences at a picturesque location
- Great networking opportunities
- Conference dinner opportunity on Saturday night

Confirmed speakers and topic areas (titles TBA shortly):

- Ms Robyn Coleman 'AIMS 2017 Travelling Orator', Sullivan Nicolaides Pathology Coagulation topic
- o Dr Nancy Endersby-Harshman, Bio21 Institute Wolbachia to reduce transmission of dengue virus
- o Ms Michelle Francis, Monash Health Molecular microbiology topic
- o **Prof Bill Heath, Doherty Institute** Breakthrough in malaria vaccine research
- o Prof Karin Jandeleit-Dahm, Baker Heart and Diabetes Institute Diabetes and renal disease
- Dr James Knox, Melbourne Pathology Performance of a modified test for carbapenemaseproducing Gram negative bacteria
- Prof Johnson Mak, Deakin University/CSIRO Human body's natural protein in defence against HIV
- Dr Peter Molloy, CSIRO Simple blood test for bowel cancer
- Prof Greg Qiao, The University of Melbourne Latest development in peptide-based stars as antibiotics
- Dr Catherine Satzke, Murdoch Childrens Research Institute Pneumococcal research topic
- o A/Prof Bayden Wood, Monash University Resonance Raman spectroscopy for malaria diagnosis
- Prof Matthias Ernst, Olivia Newton John Cancer Research Institute Role of macrophages in bowel and gastric cancer
- o Ms Sridurga Mithraprabhu, Monash University/Alfred Hospital Liquid biopsy in multiple myeloma
- Dr Norelle Sherry, Austin Health/Melbourne Genomics Health Alliance Genomics-based superbug tracking system
- And other exciting speakers in the pipeline!

Featured speaker and topic area (title TBA shortly):

 Mr David Barton, RMIT University Presenting his PhD research on the recovery of Marysville after the 2009 Black Saturday bushfires

Abstract submissions: Would you like to present a 15 min talk or a poster? If so, contact Dr Ed Fox (edward.fox@csiro.au) for abstract submission instructions or go to the AIMS website.

Abstract submissions close: September 29th 2017.











Registration: For further details of conference registration rates / packages and to register your attendance, please go to: https://www.aims.org.au/events/event/vic-aimsasm-2017-conference Early Bird Registration closes: Friday 29th September 2017.

Accommodation: Bookings* are to be made directly with Vibe Hotel, Marysville and can be made:

- Online: https://tinyurl.com/y86cfqry or

Via phone: (03 5957 7700)

Registration Costs:

The FULL registration packages below include both Saturday and Sunday attendance, and the 2 course conference dinner (see below for details about the dinner).

For those only attending one day of the conference, the conference dinner is an optional extra. Dinner tickets are priced at \$80 per person. Extra dinner tickets may also be purchased for family members and friends to participate in this social event (\$80 each).

	AIMS/ASM members:	Non- members:
Early Bird (before Sept 29th) FULL registration	\$295.00	\$355.00
FULL registration (after Sept 29 th)	\$345.00	\$415.00
Saturday only (Dinner not included)	\$155.00	\$185.00
Sunday only (Dinner not included)	\$155.00	\$185.00
Student FULL	\$245.00	\$295.00
Student Saturday only (Dinner not included)	\$115.00	\$145.00
Student Sunday only (Dinner not included)	\$115.00	\$145.00

Go to the website: https://www.aims.org.au/events/event/vic-aimsasm-2017-conference to register your attendance!

Conference Dinner: A two course conference dinner with canapes and pre-dinner drinks in the Radius Bar and Grill which serves modern Australian cuisine, local wine, beer and house made bread. The restaurant has an emphasis on locally sourced produce within 100km range and the food is simple and fresh with a focus on slow cooked meats over a wood flame. This dinner is designed to bring all the delegates together to share a meal and get to know others.

Enquires: Kerryn Weekes (<u>kerryn.weekes@monashhealth.org</u>) or Karena Waller (<u>klwaller@unimelb.edu.au</u>)







^{*} When booking accommodation, please quote the Promo Code (TH9467296) to access the special conference room rates.



ASM History SIG – Column

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

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-speakersprogram/

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

MICRO NEWS and VIEWS

 Antibiotic nanoparticles fight drug-resistant bacteria - Targeted treatment could be used for pneumonia and other bacterial infections

https://www.sciencedaily.com/releases/2017/07/170713081552.htm

 Diabetes causes shift in oral microbiome that fosters periodontitis, Penn study finds

https://www.sciencedaily.com/releases/2017/07/170712145606.htm

 Tracking leishmaniasis in dogs, wild animals and sand flies in Brazil

https://www.sciencedaily.com/releases/2017/07/170713155050.htm

 Chronic flu patients could be an early warning system for future outbreaks

 $\underline{https://www.sciencenews.org/article/chronic-flu-patients-could-be-early-warning-system-future-outbreaks}$

 New heart attack treatment uses photosynthetic bacteria to make oxygen

 $\underline{https://www.sciencenews.org/article/new-heart-attack-treatment-uses-photosynthetic-bacteria-make-oxygen}$

- Scientists spy on the secret inner life of bacteria https://www.sciencenews.org/article/scientists-spy-secret-inner-life-bacteria
- Explainer: what is tularemia and can I catch it from a possum? https://theconversation.com/explainer-what-is-tularemia-and-can-i-catch-it-from-a-possum-79839
- Pores found in 'platypus of microbiology' bacterium push boundaries of evolution

http://www.abc.net.au/news/science/2017-02-02/gemmata-obscuriglobus-bacterium-pushes-boundaries-of-evolution/8228876

 Beating superbugs a matter of choosing the right biological weapon, scientists say

 $\frac{http://www.abc.net.au/news/2017-05-17/science-can-be-responsible-for-creating-and-killing-superbugs/8530970$

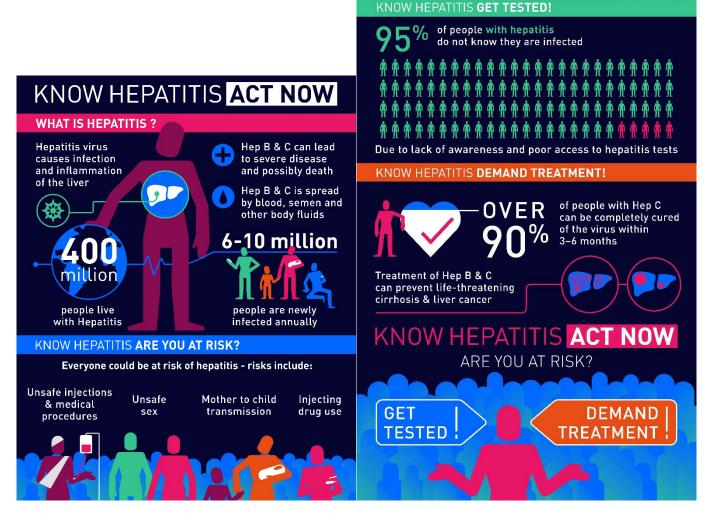
MICRO NEWS and VIEWS

World Hepatitis Day 28th July 2017

The World Hepatitis Day on 28th July 2017 is an opportunity to add momentum to all efforts to implement the WHO's first global health sector strategy on viral hepatitis for 2016-2021 and help 28 Member States achieve the final goal - to eliminate hepatitis.

In support of the "Eliminate hepatitis" campaign, WHO will release new information on national responses in 28 countries with the heaviest burden. The 11 countries which carry almost 50% of the global burden of chronic hepatitis include: Brazil, China, Egypt, India, Indonesia, Mongolia, Myanmar, Nigeria, Pakistan, Uganda, Viet Nam. In addition, 17 countries that also have high prevalence and together with the above, account for 70% of the global burden: Cambodia, Cameroon, Colombia, Ethiopia, Georgia, Kyrgyzstan, Morocco, Nepal, Peru, Philippines, Sierra Leone, South Africa, Tanzania, Thailand, Ukraine, Uzbekistan, Zimbabwe.

Reproduced from http://www.who.int/campaigns/hepatitis-day/2017/event/en/



Reproduced from http://www.who.int/campaigns/hepatitis-day/2016/infographic-en.jpg?ua=1

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)

MICROMON DEPARTMENT OF MICROBIOLOGY MONASH UNIVERSITY MELBOURNE

MOLECULAR BIOLOGY TECHNIQUES An introductory course in recombinant DNA technology Sunday 3 – Friday 8, December 2017

Micromon, in the School of Biomedical Sciences, is now seeking enquiries and applications for its next Molecular Biology short course which will provide comprehensive training in the essential skills of *recombinant DNA technology*. Highly regarded throughout the scientific community and by former participants, this outstanding and established course has attracted applicants from diverse backgrounds in private, government, scientific, clinical, educational and commercial organisations. It is an extremely intensive and demanding weeklong course, designed to teach the fundamental skills of Molecular Biology to professionals from all scientific disciplines, who have had minimal previous experience. It is also an ideal workshop for those who would like to consolidate their current, basic-intermediate, skill level. Entry requirements include a tertiary level qualification in science, medicine or a related discipline. We will also accept applicants with extensive, practical laboratory experience.

The course consists of eleven hours of theory provided by a group of experienced lecturers who are all active researchers, experts in their relevant fields and are widely published. Full descriptions of their research work and publications can be found at med.monash.edu.au/microbiology/research

The practical training involves more than 30 hours of experimental laboratory work and tutorials. This is provided by graduate instructors who routinely use the applications and procedures in an active research environment. The key feature of the workshop is our tutor to participant ratio which is one to four, for all workshop sessions and tutorials. A comprehensive manual with all lecture slides, protocols, procedures and references is provided, together with a disk containing all lecture presentations.

The course fee is \$1,950 (GST-exclusive) and as part of the package we provide morning and afternoon teas, delicious gourmet lunches, and refreshments at the end of each day. Currently enrolled PhD students receive a 20 per cent discount. Also included in the package is the course dinner on the Thursday evening that includes awards and presentations. There is a range of demonstration equipment for use plus the relevant product information supplied by our commercial, scientific sponsors. A course attendance certificate will be awarded on completion. This package offers an excellent value for money opportunity for interested participants. Information on reasonably priced, university-based or private commercial accommodation can be provided on request.

Technical & Registration information:

Mr Mark Cauchi Tel. 61 3 9905 4830 mark.cauchi@monash.edu micromon.monash.org





ASM VIC CALENDAR 2017

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

- Food Microbiology and One Health Event 15th August 2017, Melbourne VIC
- Tri-State Scientific Meeting & Parasitology Master Class 22nd to 25th September 2017, Darwin NT
- AIMS/ASM Vic Branch Joint Conference Science in the Spotlight – 18th to 19th November 2017, Maysville VIC
- Micromon Molecular Biology Techniques Course 3rd to 8th December 2017, Clayton, VIC

Submission Deadline for May ASM Victorian News: August 4th 2017

Email submissions to: jhea@unimelb.edu.au or cbutler@unimelb.edu.au