

The Australian Society for Microbiology VIC Branch Newsletter

May 2019, Vol 522

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Submission Deadline: 4th of the Month

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

Contact Details

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The Australian Society for Microbiology

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



Microbiologist Memoirs

Dr Maria Liaskos, PhD (Host-microbe Interactions, ASM Victorian Branch Committee)



My fascination with microbes began during my undergraduate studies at the University of Melbourne, where I was introduced to the multitude of mechanisms used by bacteria to cause disease by numerous ASM members. I became an ASM member in 2003 when I was a PhD student in Professor Richard Strugnell's laboratory, and I have been a member of the ASM Vic Branch Committee since 2018.

I am currently a Senior Lecturer and Group Leader at La Trobe University, and Deputy Director of the La Trobe Research Centre for Extracellular Vesicles. My lab is based at La Trobe and I hold an adjunct appointment at the Hudson Institute of Medical Research. My lab primarily focuses on understanding the cellular and molecular mechanisms of host-pathogen interactions with particular focus on *Helicobacter pylori* and bacterial membrane

vesicles. Our research is supported by national and international funding agencies, including the NHMRC, ARC and DAAD in addition to an Inspiring Women Fellowship from veski.

Jaelyne Birrell, BBSc (Clinical and Diagnostics Group, ASM Victorian Branch Committee)



I completed a BBiomedSc (Laboratory Medicine) with Honours 1st Class (RMIT University, 2015) majoring in medical histopathology, and medical genetics diagnostics, which included fourth year research focusing on Helicobacter pylori effects on gastric cancer spheroids. I received numerous top student awards for academic achievement and student leadership, including an ASM prize cementing my love of microbiology! I've enjoyed several years of diverse local and international experience in molecular microbiology and diagnostic pathology. I completed part of my medical scientist training in Virus Quantification (Gothenburg, Sweden) which included helping to characterise viral growth in a paediatric transplant case. I worked as a Microbiologist/Quality Associate (Microgenetix, 2015-2018) providing molecular microbial identification, chiefly by DNA sequencing, to Australian industry and hospitals. Highlights included targeted PCR assay design and tapping into microbiome analysis using next generation sequencing. I joined both the ASM and AIMS (Australian Institute of Medical Scientists) Vic Branch committees after graduation as I'm passionate about providing CPD opportunities for microbiologists and medical scientists. I'm

now a Medical Scientist at the Victorian Clinical Genetics Services, based at the Royal Children's Hospital, Melbourne.

If you would like to be featured in "Microbiologist Memoirs", or know a microbiologist who would or should be, please contact Jacqueline Heath (jhea @unimelb.edu.au) to get involved.





Regional Event Report

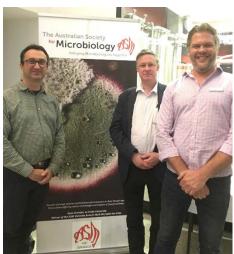
"Tackling Antimicrobial Resistance: Bench to Bedside and Back Again"

ASM Vic Branch sponsored their first regional event at Federation University in Mount Helen Campus on Monday the 8th of April. The event was a public lecture organised by Dr David Bean from Federation University. The lecture was given by microbiology clinician Dr David Wareham from Queen Mary University London on "Tackling Antimicrobial Resistance: Bench to Bedside and Back Again".

Dr Wareham gave an overview of his research on infection control and antimicrobial resistance and the current problems that clinicians are facing in intensive care units. The lecture was focused on mechanisms underlying the development and persistence of antimicrobial resistance and the consequences this may have on the organism and its capacity to cause disease. His presentation described some work he has done with *Pseudomonas aeruginosa*, *Stentrophomonas maltophila* and *Acinetobacter baumannii*.

The night attracted greater than forty people at the Mount Helen campus and was also live streamed at their Gippsland campus. The presentation of was great interest and concluded with dinner and drinks as well as opportunities for the audience and speaker to network.







Left: Dr Wareham. Top Right: Dr Steve Petrovski, Dr Wareham and Dr Bean

Event report contributed by: Steve Petrovski



Career Pathways for Scientists Event Report

On Tuesday the 16th of April 2019, the ASM Vic Branch hosted their first career development event for the year at the City of Melbourne Bowls Club. "Career Pathways for Scientists" was targeted at student and early career scientists who wanted to know more about the diverse career paths available to them. The event included presentations by 4 members of the scientific community (see below) who have taken various paths after completing their studies, explaining the reasoning behind their career decisions as well as advice for scientists relevant to those both early and late in their careers.



Professor Ben Marsland is an NHMRC Senior Research Fellow and Professor in the Department of Immunology and Pathology, within the Central Clinical School at Monash University investigating host-pathogen interactions in the context of respiratory diseases, and has co-founded 2 biotech companies.

Dr Samantha Byrne is a former dentist, who since completing a PhD and post-doctoral research in oral microbiology, now holds a lecture position at the Melbourne Dental School, University of Melbourne, and is also a scientific communicator @_the_tooth_fairy_





Dr Sanja Aracic completed a PhD on extracellular polysaccharides produced by a soil microbe followed by post-doctoral research on the development of microbial biosensors for detection of heavy metals, and now works as a Senior Research Officer at the biotech company Affinity Bio.



Dr Sam Manna, completed his PhD on horizontal gene transfer and the regulation of mitochondrial gene expression in protozoa, and after gaining experience as an Associate Lecturer in the Department of Microbiology at La Trobe is now an early career researcher at the Murdoch Children's Research Institute investigating the biology, genetics and virulence of the bacterial pathogen *Streptococcus pneumoniae*.

Whilst each of the presenters have taken different career pathways leveraging their scientific backgrounds, each had very similar advice for the attendees: develop your passions, embrace creativity and innovation, lean in to opportunities, relationships are important and find meaning in your work.

The presentations were followed by dinner and an opportunity to network with the other attendees as well as ask the presenters more specific questions. The event was well attended with around 30 students, early career scientists and even some senior scientists, and received excellent feedback. The ASM Vic Branch is keen to support the career development of all its members and envisage holding similar events in the future.





Event report contributed by: Jacqueline Heath





ASM Victorian Branch

Microbial Art Prize

Calling all artistic individuals! The 2019 Microbial Art Prize will be up for grabs mid-year. Start planning now if you want to be in to win and have your eye-catching scientific image displayed at ASM events.

Image Details:

All types of scientific images are welcome

- Images must have a microbiological theme
- Images should be high resolution and suitable for printing on a 1x2m banner
- Images must be accompanied with a description of what the image illustrates and how it was generated

Prize:

- The 2019 Microbial Art Prize winner will have their image printed on ASM banners to be displayed at events and used in ASM promotional material.
- Plus more!

Competition Entry Conditions:

- Maximum 2 entries per person
- Submitter must be the owner of the image
- Submitter must be a member of ASM
- A complete entry consists of:
 - (1) image, (2) a description of the image (<100 words), and (3) the submitter's details (name, position, institution)

Winners will be selected by the ASM Vic Branch committee

Competition dates: 3rd June – 5th July 2019



www.asmmeeting.theasm.org.au

Adelaide Convention Centre

OSWSO 6 2 July

www.theasm.org.au

AUSTRALIA SOUTH

30 June

Microbiology (5)

The Australian Society

KEY DATES

EARLY BIRD DEADLINE: 19 April 2019 **ORAL ABSTRACT DEADLINE:** 19 April 2019 POSTER ABSTRACT DEADLINE: 17 MAY 2019



*Registration & Abstracts open February 19th

*Discounted rates for ASM members!

*Limited discounts available for Students & ECR's

*Wednesday workshops on offer!

PLENARY SPEAKERS

Prof Miguel Viveiros A/Prof Noah Fierer Dr Karen Carroll Prof Sarah Gurr Dr Alan Landay

RUBBO ORATION

A/Prof Tilman Ruff

SNOWDON ORATION

Dr Marnie Peterson



Registration is NOW OPEN

When: Wednesday 3 July 2019 (from 2.30pm) AND Thursday 4 July 2019 (from

8.30am - 4.30pm)

Venue: Health Sciences Building, University of South Australia, North Terrace, Adelaide SA

Speakers:



Assoc Prof Wilhelmina (Willa) Huston, University of Technology Sydney

Student-Professional-Academic Co-creation of collaborative and active learning approaches in the new UTS PC2 Superlab





Dr Helena Ward and Prof Ray Peterson, University of Adelaide

Scholarship of Teaching and Learning: Why it matters and how you can engage in it



Dr Nicolene Lottering, Swinburne University of Technology

Re-inventing learning for the digital generation: A students-as-partners approach to maximise student engagement



Dr Prue Bramwell, RMIT University

ASM David White Excellence in Teaching – 2018

Award Winner

Group Work – perspectives on the student

experience and assessment



Mr Adam Montagu, University of Adelaide Simulation under the microscope



Dr Karina Riggs, University of Adelaide

'Flipping the Microbiology Lab'- A case study into Flipped Classroom design for improving student engagement



Dr Rebecca LeBard, University of New South Wales
How do we measure good teaching?

EduCon 2019 is proudly sponsored by:





EduCon Program

Please see attached for the full conference program. The program also includes opportunities to:

- Tour the state-of-the-art Adelaide Health Simulation Unit's teaching facilities for the medical sciences
- Visit the MOD., a futuristic museum (https://mod.org.au/) located on the ground floor of the UniSA building hosting our conference. Coincidently, the exhibit during our conference, HEDONISM, explores how we might design for a sustainable pleasure, and includes a digital game aiming to diversify your gut microbiome (and keep it healthy)!

Would you like to present a poster at EduCon?

A poster session will be held during lunch on Thursday 4 July 2019. If you would like to present your Educational Research / Scholarship of Teaching and Learning (SoTL) findings at EduCon during this session, please contact Assoc Prof Karena Waller (klwaller@unimelb.edu.au) for abstract submission and application instructions.

Poster abstract submissions close: 5pm Friday 7 June 2019.

EduCon 2019 Dinner:

This year's EduCon Conference Dinner will be a 3-course meal (set menu) at a lively local gastro pub, commencing at 7.00pm on the evening of Wednesday 3 July 2019, at:

Union Hotel, 70 Waymouth Street, Adelaide SA 5000

Each dinner ticket costs \$56. Dinner tickets, including extra ones for partners, are to be pre-purchased at the time of registration.

Conference Registration:

Registration is required for all attendees, and is inclusive of all morning and afternoon teas, and lunch on Thursday 4 July 2019.

- ASM Members \$125
- Non-ASM Members \$175
- Student ASM Members \$75
- Student Non-ASM Members \$125

Please note: the cost of registration does not include attendance at the EduCon 2019 Conference Dinner – tickets to the Dinner are to be purchased separately at the time of registration.

Register to attend and purchase your dinner tickets at: https://www.trybooking.com/BAUNP

Registration will CLOSE – 5pm Wednesday 19 June 2019

For all enquiries: please contact Assoc Prof Karena Waller (klwaller@unimelb.edu.au)

Full Conference program over page....



Educon Conference Program – 2019

Wednesday 3 July 2019	
2.30 – 3.00pm	Registration and Welcome
•	Venue: Rooms HB8-17 & HB8-18 Level 8, Health Innovation Building, University of South
	Australia, City West campus, North Terrace, Adelaide
	Chair: Assoc Prof Karena Waller, University of Melbourne
	Light refreshments on arrival
3.00pm – 4.00pm	Session 1: Group Work – perspectives on the student experience and assessment
	Presenter: Dr Prue Bramwell, RMIT University
	ASM David White Excellence in Teaching – 2018 Award Winner
	Chair: Dr Megan Lloyd, Edith Cowan University
4.10pm – 5.00pm	Session 2: Simulation under the microscope (in the neighbouring University of Adelaide
	Building)
	Presenter: Adam Montagu, Director, Adelaide Health Simulation, University of Adelaide
	Chair: Dr Helena Ward, University of Adelaide
5.00pm – 6.00pm	Session 3: Tour of Adelaide Health Simulation, Adelaide Health and Medical Sciences
	Building.
	Tour Leader: Adam Montagu, Director, Adelaide Health Simulation, University of Adelaide
7.00pm – 9.00pm	EduCon Dinner: tickets to be purchased separately at time of conference registration
	Venue: Union Hotel, 70 Waymouth Street, Adelaide SA 5000
Thursday 4 July 2019	
8.30am – 9.00am	Venue: Rooms HB8-17 & HB8-18 Level 8, Health Innovation Building, University of South
6.50aiii – 9.00aiii	Australia, City West campus, North Terrace, Adelaide
	Light refreshments on arrival
9.00am – 10.00am	Session 4: Scholarship of Teaching and Learning: Why it matters and how you can engage in
9.00am – 10.00am	it
	Presenter: Dr Helena Ward and Prof Ray Peterson, University of Adelaide
	Chair: Assoc Prof Karena Waller, University of Melbourne
10 00am - 11 00am	Session 5: Re-inventing learning for the digital generation: A students-as-partners
10.00aiii - 11.00aiii	approach
	to maximise student engagement
	Presenter: Dr Nicolene Lottering, Swinburne University of Technology
	Chair: Assoc Prof Karena Waller, University of Melbourne
11.00am – 11.30am	
	Session 6: Student-Professional-Academic Co-creation of collaborative and active learning
11.30α 12.30β	approaches in the new UTS PC2 Superlab
	Presenter: Assoc Prof Wilhelmina (Willa) Huston, University of Technology Sydney
	Chair: Assoc Prof Priscilla Johanesen, Monash University
12 30nm – 1 30nm	Session 7: How do we measure good teaching?
12.50piii 1.50piii	Presenter: Dr Rebecca LeBard, University of New South Wales
	Chair: Assoc Prof Priscilla Johanesen, Monash University
1.30pm – 2.30pm	Lunch and Posters
2.30pm – 3.00pm	Opportunity: Visit the Museum of Discovery (MOD), Ground floor, Health Sciences Building
3.00pm – 4.00pm	Session 8: 'Flipping the Microbiology Lab' - A case study into Flipped Classroom design for
7.00pm	improving student engagement
	Presenter: Dr Karina Riggs, University of Adelaide
	Chair: Dr Rebecca LeBard, University of New South Wales
4.00pm – 4.30pm	Close and Afternoon Tea
oopiiioopiii	Light refreshments before departure
	Light refreshinents before departure

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 Lauren Zavan (<u>lazavan@students.latrobe.edu.au</u>), who is the VSP Coordinator for the ASM VIC Branch.

Attention Microbiologists! Are you organising a microbiology-focussed event?

The main objective of the Australian Society for Microbiology is to advance the science of microbiology in Australia. The ASM Victorian Branch is keen to support local initiatives, with the potential to advertise or co-organise events. If you are organising a microbiology-focussed event or have an idea for a type of event that would appeal to the broader microbiology, please contact us to discuss the ASM Vic Branch may be able to assist.

Please contact Catherine Satzke (catherine.satzke@mcri.edu.au) for more information



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/

The deadlines for all award applications are now **March 31**st of each year.

Teaching and Learning

- ASM David White Excellence in Teaching Award http://www.theasm.org.au/awards/asm-david-white-excellence-in-teaching-award/
- ASM Teachers' Travel Award http://www.theasm.org.au/awards/asm-teachers-travel-award/

Diagnostic and Clinical Microbiology

- ASM Lyn Gilbert Award http://www.theasm.org.au/awards/asm-lyn-gilbert-award/
- ASM Clinical Microbiology Travel Award http://www.theasm.org.au/awards/asm-clinical-microbiology-travel-award/

Research

- ASM Frank Fenner Award http://www.theasm.org.au/awards/asm-frank-fenner-award/
- ASM Jim Pittard Early Career Award http://www.theasm.org.au/awards/asm-jim-pittard-early-career-award/

Post-graduate and Student Awards

- Millis-Colwell Postgraduate Research Travel Award http://www.theasm.org.au/awards/millis-colwell-postgraduate-award/
- NZMS Postgraduate Research Travel Award http://www.theasm.org.au/awards/nzms-postgraduate-research-travel-awardnew-page/

Contribution and Service

- ASM Distinguished Service Award http://www.theasm.org.au/awards/distinguished-service-award/
- ASM Honorary Life Membership Award http://www.theasm.org.au/awards/asm-honorary-life-membership/



ASM History SIG

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

How to join the Australian Society for Microbiology at a reduced rate!

Did you know that non-members can join the Australian Society for Microbiology at a reduced rate? Well, you can!

As a non-member, by paying the fee to attend an event hosted by ASM VIC Branch, you can use this amount to put towards an annual membership of the Australian Society for Microbiology.

To do so, please follow these instructions:

- 1. Register to attend the event hosted by ASM VIC Branch via the advertised trybooking link, and pay the attendance fee.
- 2. Attend the event, and then within 2 weeks after the event, go to the ASM membership area at http://www.theasm.org.au/membership/
- 3. Choose the appropriate membership for you and then click on: Click here to join or update your details
- 4. Click 'Begin here' and create a Currinda membership profile for yourself. Then, pay the membership full fee.
- Following payment, download the paid receipt (showing your payment) and email it along with your postal address to: Christine Seers, Treasurer VIC Branch caseers@unimelb.edu.au
- 6. A cheque refunding the event fee will be posted to you.

<u>Please note:</u> you must complete the above process within 2 weeks following an event to take advantage of this offer. After this time, the event fee cannot be used to pay membership fees.

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MICRO NEWS and VIEWS

- New technique to test for viral infections https://www.sciencedaily.com/releases/2019/04/190408161648.htm
- Bacteria surrounding coral reefs change in synchrony, even across great distance https://www.sciencedaily.com/releases/2019/04/190412085221.htm
- In 'The Perfect Predator,' viruses vanquish a deadly superbug https://www.sciencenews.org/article/perfect-predator-phages-deadly-superbug
- A belly full of wriggling worms makes wood beetles better recyclers
 <u>https://www.sciencenews.org/article/belly-full-wriggling-worms-makes-wood-beetles-better-recyclers</u>
- A global survey finds that the Arctic Ocean is a hot spot for viruses https://www.sciencenews.org/article/global-survey-arctic-ocean-viruses
- How an obscure sexually transmitted parasite tangos with the immune system https://www.sciencenews.org/article/obscure-sexually-transmitted-parasite-immune-system-microbes
- Bacteria can be coaxed into making the toughest kind of spider silk
 https://www.sciencenews.org/article/bacteria-can-be-coaxed-making-toughest-kind-spider-silk
- First bacterial genome created entirely with a computer https://www.sciencedaily.com/releases/2019/04/190401171343.htm
- A marine parasite's mitochondria lack DNA but still churn out energy <u>https://www.sciencenews.org/article/marine-parasite-mitochondria-no-dna-energy</u>
- How holes in herd immunity led to a 25-year high in U.S. measles cases
 https://www.sciencenews.org/article/holes-herd-immunity-led-25-year-high-us-measles-cases
- Chickens stand sentinel against mosquito-borne disease in Florida https://www.sciencenews.org/article/chickens-mosquito-borne-disease-florida
- Testing mosquito pee could help track the spread of diseases
 https://www.sciencenews.org/article/testing-mosquito-pee-could-help-track-spread-diseases

MICRO NEWS and VIEWS

- A 5,000-year-old mass grave harbors the oldest plague bacteria ever found https://www.sciencenews.org/article/5000-year-old-mass-grave-harbors-oldest-human-plague-case
- Bacteria reveal strong individuality when navigating a maze https://www.sciencedaily.com/releases/2019/04/190423133557.htm
- Methane-consuming bacteria could be the future of fuel https://www.sciencedaily.com/releases/2019/05/190509142722.htm
- Electricity-conducting bacteria yield secret to tiny batteries, big medical advances https://www.sciencedaily.com/releases/2019/04/190404143747.htm
- Phage therapy treats patient with drug-resistant bacterial infection https://www.sciencedaily.com/releases/2019/05/190508134554.htm
- Microgels let medical implants fight off bacteria
 https://www.sciencedaily.com/releases/2019/03/190326165615.htm
- Pole-to-pole study of ocean life identifies nearly 200,000 marine viruses https://www.sciencedaily.com/releases/2019/04/190425115626.htm
- Catch a virus by its tail https://www.sciencedaily.com/releases/2019/05/190513143823.htm
- Gene-editing technology may produce resistant virus in cassava plant https://www.sciencedaily.com/releases/2019/04/190426142052.htm
- Evolving alongside viruses impacts susceptibility to future infections https://www.sciencedaily.com/releases/2019/04/190430132247.htm

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 Catherine Satzke (catherine.satzke@mcri.edu.au)

ASM VIC CALENDAR 2019

When planning meetings, please book dates with Catherine Satzke (Email: catherine.satzke@mcri.edu.au)

- ASM Vic Branch AGM & News from the Hospitals 23rd May 2019, Peter Doherty Institute, Melbourne VIC
- ASM Annual Scientific Meeting 2019 30th June 3rd July 2019, Adelaide SA
- ASM EduCon Meeting 2019 3rd 4th July 2019, Adelaide SA



Submission Deadline for June ASM Victorian News:

June 4th 2019

Email submissions to: jhea@unimelb.edu.au