



Victorian News

The Australian Society for Microbiology VIC Branch Newsletter

July 2020, Vol 531

**Microbial Art Prize
“Isolation edition”
Closes Soon**

**Meet your new
Committee
Members**



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2020 Calendar

Event	Date
Microbial Art Prize	1 st June - 31 st July
'Microbes on the Move' NZMS- ASM Joint Conference	23-26 November 2020 Rotorua New Zealand

Events

Microbial Art Prize “isolation edition”

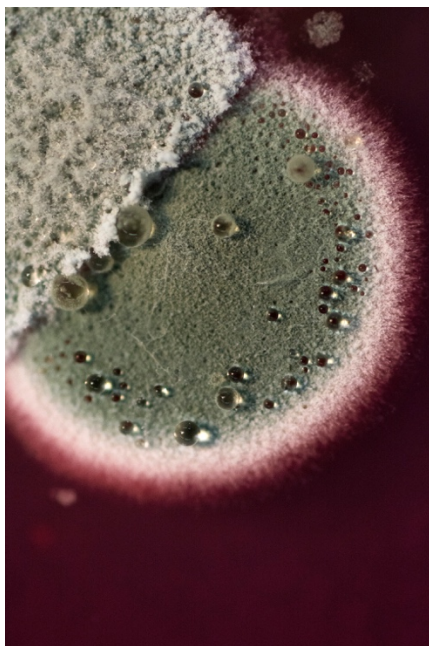
1st June 2020 – 31st July 2020

Calling all artistic individuals. It is time for the 2020 Microbial Art Prize. This year we are switching things up and asking you to submit images representing **Micro at Home**. This could be your best bacteria-themed cookies, paintings, or the recreation of a host-pathogen interaction with lego - the more outside the box the better!

Imaged will be posted on the branch website, social media accounts and the monthly newsletter. Prizes will be awarded to the committee favourites.

Send all entries and enquires with the Subject Heading: Microbial Art Prize to Sarah Baines (bainess@unimelb.edu.au) and Jake Lacey (jake.lacey@unimelb.edu.au).

To be considered for a prize, entries must be received by 31st July 202



Veterinary Microbiology Symposium – Event Report

The One Health group from the ASM Vic Branch organised their first online event via zoom on Tuesday 30th of June 2020. The event was open to the public and we had 23 attendees. With the exception of some audio problems and connectivity issues for some participants the event was successful with three very interesting presentations.

Our first speaker was Dr Nick Doidge from University of Melbourne and Melbourne Zoo. Dr Doidge gave us an overview of his work on the pathogenesis of *Serratia marcescens* in the Lord Howe Island stick insect. The second speaker was Dr Peter Mee from AgriBio in Bundoora who presented a case study of African Swine Fever in Timor and ways in which they helped with diagnosis using LAMP assays. The final speaker was Dr Thi Thu Hao Van from RMIT University who presented work conducted by her group on the discovery of the cause of spotty liver disease in chickens.

The presentations were very interesting and gave an overview of three very diverse research areas.

Event report contributed by Steve Petrovski

Coffee Roulette – Event Report

The ASM Vic Branch introduced a new event to its repertoire recently, holding several successful Virtual Coffee Roulette Sessions on Monday 22nd, Tuesday 23rd and Thursday 25th June. The idea behind the event was to help members to connect during this time of isolation. Participating ASM members were randomly grouped based on their preferred session day and times. The groups included an average of 3-4 participants, with members from diverse microbiology fields and careers stages.

Positive feedback on the sessions has been received with the interesting discussions being a common thread. The ASM Vic Branch is keen to run this event again, so if you would like to participate and have any suggestions on ideal day of the week and time slots, please contact us.

Event report contributed by Jacqueline Heath



News and Views

ASM Vic Branch Website

New Look Coming Soon

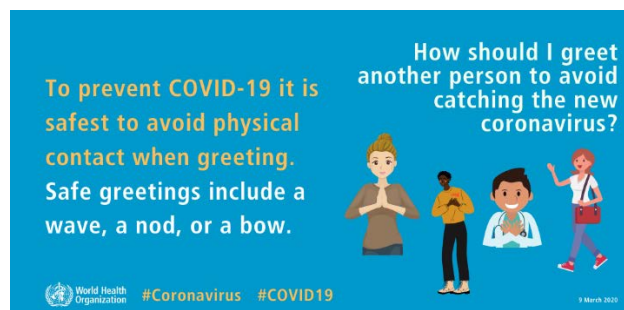
Unfortunately, due to unforeseen circumstances our ASM Vic Branch Website is currently unavailable. We are working as hard as we can to resolve this issue and we apologise for any inconvenience caused. In the meantime, our Facebook and Twitter accounts will be running as usual.

We are back into lockdown so keep up to date with COVID-19

During these unprecedented times it can be difficult to find the best information about Coronavirus (COVID - 19) and keep up to date with the ever-changing restrictions and medical advice. Here are some useful links to help you find the most relevant Coronavirus information for Victorians and where to get support.

- Victorian Government – For the most current announcements on Coronavirus for Victorians ([here](#))
- Australian Government – For the most current health advice ([here](#))
- DHHS Victoria - Information, updates, and advice about the outbreak of COVID-19 ([here](#))
- World Health Organization- Coronavirus disease (COVID-19) Pandemic ([here](#))
- Global Virus Network- SARS-CoV-2 Response Effort Highlights ([here](#))
- For help accessing support payments ([here](#))

24/7 Coronavirus health information line 1800 020 080



Meet your New Committee Members

We would like to thank everyone who submitted a nomination form for the ASM Victorian Branch Committee this year and to the MASMs and FASMs for their support of the candidates.

We are excited to extend a warm welcome to three fantastic new additions to the Victorian branch committee;

Dr Harshini Weerasinghe from Monash University
Dr Sam Manna from the Murdoch Children’s Institute and
Associate Professor Andrew Greenhill from Federation University

On behalf of the committee and our members we look forward to working with you.

Dr Harshini Weerasinghe



Dr Harshini Weerasinghe is a Postdoctoral Scientist working in the fungal infection and medical mycology laboratory of Prof. Ana Traven at the Biomedicine Discovery Institute of Monash University.

Harshini is a fungal geneticist with interests in the genetic and genomic aspects of pathogenic fungi and how they relate to establishment of infection. She completed her PhD at the University of Melbourne, investigating the transcriptional dynamics that occur during pathogenic fungi and immune system macrophage interactions. In her current position, she is studying the role of metabolic changes in immune cells and hospital acquired infectious *Candida* species, that drive host-fungal interactions.

Dr Sam Manna



Sam is a microbiologist who completed his PhD in the Department of Microbiology at La Trobe University in 2014 focusing on horizontal gene transfer and the regulation of mitochondrial gene expression in protozoa.

He then worked as an Associate Lecturer in the same department, supervising honours research projects and lecturing to undergraduate microbiology students in the areas of microbial genetics and infectious diseases.

In 2015, Sam joined the Pneumococcal Research Group at the Murdoch Children's Research Institute as a Research Officer. His research involves investigating the biology, genetics and virulence of the bacterial pathogen *Streptococcus pneumoniae*.

Sam has attracted over \$130,000 in funding and has also received multiple awards in recognition of his work including the Robert Austrian Research Award in Pneumococcal Vaccinology and the Australian Society for Microbiology Jim Pittard Award.

Associate Professor Andrew Greenhill



Andrew holds an academics position at the Gippsland campus of Federation University Australia.

He obtained his undergraduate degree from the University of Tasmania a long time ago, then moved to James Cook University in Townsville. Andrew held a variety of roles at JCU, and also completed a PhD.

Soon after completion of his PhD he moved to regional Papua New Guinea, working at the PNG Institute of Medical Research for 4 very enjoyable years. Here Andrew established research in gastrointestinal pathogens such as; *Vibrio cholerae* and *Salmonella* Typhi, while also contributing to a well-established respiratory pathogen research program.

In his current role Andrew continues to work primarily on gastrointestinal pathogens, but as a generalist he finds himself contributing to a variety of projects. His teaching commitments are similarly broad, contributing to introductory microbiology, food microbiology, clinical microbiology and brewing. Andrew is pictured here in front of his fermentation vessel in his shed, where he practises (and practices) his applied microbiology.

News and Views

Microbial Photography

By Gene Drendel

We asked two-time winner the Microbial Art Prize Gene Drendel how he takes such amazing photos of microbes and if he has any advice for our ASM member

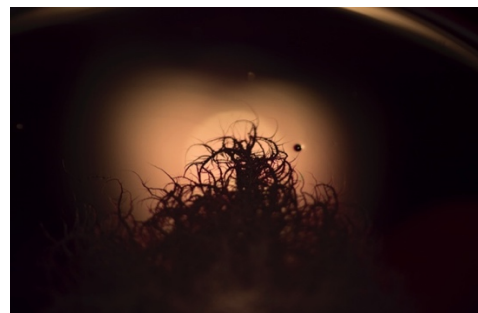
While thinking about the barriers to entry for macro photography, the biggest one that comes to mind is acquiring a suitable lens. A DSLR with a macro lens is an expensive investment. Thankfully, these days it is getting easier to break into macro photography with the advances in smartphone cameras. Several companies now make custom lenses to attach to a wide range of smartphones. Alongside this, many smartphone camera apps are now capable of allowing the user to have more manual control over things like ISO, shutter speed, and aperture, which are key to experimenting for different looks in your photos.

Beyond your equipment the main challenge and source of experimentation that comes to my mind with macro photography of microbial cultures comes down to lighting. Lighting is, of course, always an integral part of photography, influencing what is visible, as well as the colour temperature of the resulting photos. When taking the photos that I have submitted over the last couple of years for the ASM competitions, I would say that playing around with different lighting was the single most time consuming and image defining action that I took. A change in light sources can be the difference between a completely flat and lifeless image, or one with dramatic colours and shadows. This is most immediately apparent in everyday photos when comparing photos taken with or without a flash. Flashes attached to your camera and pointed directly at your subject are notorious for creating harsh lighting that flattens your photo and is unflattering to almost all subjects. This applies equally with photos of microbial cultures, just at a much smaller scale.

Much of the experimentation with light that I carried out when taking these photos involved manipulating the subject (in this case the petri dish), or physically moving myself, into many different positions and angles to explore how the light hitting different parts of the agar or culture impacted the photo. And importantly here, the key is to always take that photo, with each of the angles or light sources you play with, rather than just judging with your own eyes. You might be surprised how much the two can differ! Because the human eye adapts so well to the wide range of lighting conditions that we expose ourselves to every day it is easy to forget just how much the light around us changes all the time. A camera will oftentimes painfully remind you of this fact when you try to take a photo in a dull room that seems perfectly fine to your eyes, but results in a dark, grainy mess when you look at the photo.



To illustrate just how much of a difference playing with light can make to the same subject, the two photos show the exact same culture of *Bacillus mycoides*, and apart from the difference in scale they both have, the defining difference between them is that in one, I simply sat the petri dish sitting on the bench and took a photo from quite close up, to focus on the tendrils of the culture. While in the second photo, I held the petri dish at an angle close to a desk lamp, angling the plate until it was positioned to show the reflection of the lamp on the agar immediately surrounding the spiralling threads of culture, creating a silhouette. This was the same method I used to take the winning ASM competition photo in 2019, although in that one I also slowed down my shutter speed, and allowed for enough light to hit the culture, so that some more colour and definition was given to the tendrils.



Ultimately, I believe the most important take away for photography is to always be experimenting with your settings and environment. Not just the lighting, but everything else you can control, such as the camera aperture to experiment with depth of field, or the ISO to change how much light you need on your subject. And always be taking photos!

If you want to see more check Gene out on Instagram at: <https://www.instagram.com/gene.drendel/>

Research Highlights

Journal Articles

Gram-negative endophthalmitis: A prospective study examining the microbiology, clinical associations and visual outcomes following infection ([here](#))

e-Diagnosis in Medical Parasitology ([here](#))

Australian consensus statements for the regulation, production and use of faecal microbiota transplantation in clinical practice ([here](#))

Canadian Antimicrobial Resistance Surveillance System – Update 2020 ([here](#))

Hyperendemic rheumatic heart disease in a remote Australian town identified by echocardiographic screening ([here](#))

Combined therapy with ceftriaxone and doxycycline does not improve the outcome of meningococcal meningitis in mice compared to ceftriaxone monotherapy ([here](#))

Revealing COVID-19 transmission in Australia by SARS-CoV-2 genome sequencing and agent-based modeling ([here](#))

Spatiotemporal proteomics uncovers cathepsin-dependent macrophage cell death during *Salmonella* infection ([here](#))

Roadmap for naming uncultivated Archaea and Bacteria ([here](#))

Xanthomonas diversity, virulence and plant–pathogen interactions ([here](#))

A community-driven resource for genomic surveillance of *Neisseria gonorrhoeae* at Pathogenwatch ([here](#))

Genomic surveillance of *Escherichia coli* and *Klebsiella* spp. in hospital sink drains and patients ([here](#))

Covid-19: from rapid genome sequencing to fast decisions ([here](#))

Pan-resistant HIV-1 emergence in the era of integrase strand-transfer inhibitors: a case report ([here](#))

SARS-CoV-2 in fruit bats, ferrets, pigs, and chickens; an experimental transmission study ([here](#))

Reconsidering *Mycobacterium bovis* as a proxy for zoonotic tuberculosis: a molecular epidemiological surveillance study ([here](#))

Share your recently published research with us.

Are you an ASM Vic Branch member? Have you published a paper or a preprint in the last month and want to get the word out?

Send it to us with a summary paragraph and let us share it with our Victorian members in our Newsletter. Send your submissions by the 5th of the Month to Jake Lacey (jake.lacey@unimelb.edu.au) with the subject heading **Research Highlights**



Be **READY** for #coronavirus

WHO is giving advice on how to protect ourselves & others:

Be **SAFE** from coronavirus infection

Be **SMART** & inform yourself about it

Be **KIND** & support one another

Learn more about #COVID19 & share with your loved ones: www.who.int/COVID-19

 UNITED NATIONS  World Health Organization

Contact and Society Details



Vic Branch Committee

Chair: Catherine Satzke
(catherine.satzke@mcri.edu.au)
Deputy Chair/Public Health: Mary Valcanis
(valcanis@unimelb.edu.au)
Secretary: Sarah Baines (bainess@unimelb.edu.au)
Treasurer: Chris Stubenrauch
(christopher.stubenrauch@monash.edu)
Immediate Past Chair: Karena Waller
(klwaller@unimelb.edu.au)
VSP Coordinator: Lauren Zavan
(l.zavan@latrobe.edu.au)
Communications and Marketing (incl. Newsletter Editor): Jake Lacey (jake.lacey@unimelb.edu.au), Louise Miles, (lo.miles@alfred.org.au)

Committee Members: Maria Liaskos
(M.Liaskos@latrobe.edu.au), Seema Kanade
(seema.kanade@dorevitch.com.au, Priscilla
Johanesen (priscilla.johanesen@monash.edu),
Jacqueline Heath (jhea@unimelb.edu.au) Steve
Petrovski (Steve.Petrovski@latrobe.edu.au)

Committee Working Groups

One Health: Steve Petrovski, Jacqueline Heath,
Jake Lacey, Chris Stubenrauch, Mary Valcanis.

Medical Microbiology: Seema Kanade, Sarah
Baines, Maria Liaskos, Jake Lacey

Regional Engagement: Catherine Satzke, Steve
Petrovski

**Skills, Education, Engagement and
Communications:** Jacqueline Heath, Priscilla
Johanesen, Karena Waller, Seema Kanade, Lauren
Zavan.

Submissions: Deadlines for ASM Victorian News is
the 5th of the Month. All notices should be emailed to
Jake Lacey (jake.lacey@unimelb.edu.au).

Find us on:

Website: <http://victoria.theasm.org.au/>

Twitter: [@ASM_VicBranch](https://twitter.com/ASM_VicBranch)

Facebook: [The Australian Society for Microbiology
\(ASM\) - Victorian Branch](https://www.facebook.com/TheAustralianSocietyforMicrobiology)



Becoming a Member: 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 <https://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.
5. 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.

Please note 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.

Upgrade to a professional membership (MASM):

to be eligible for MASM, you must have: Completed an academic qualification in microbiology at degree level or alternative qualifications acceptable to the Council; and have satisfactorily completed two years of postgraduate work to advance the discipline of microbiology. If you meet these criteria, all you need to do it obtain a declaration form a referee who is a MASM or FASM finical member of the society, your curriculum vitae and academic record/copy of degree and submit online. For more information see. <https://www.theasm.org.au/professional-membership-masm>

Visiting speakers' program (VSP): Do you know of an outstanding speaker coming to Australia? If so, consider them for the Visiting Speakers Program (VSP). This program is now coordinated by the ASM Executive standing committee and the National Office in consultation with State branches. For more information, please contact Lauren Zavan (l.zavan@latrobe.edu.au), who is the VSP Coordinator for the ASM VIC Branch.

Organising events: 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

Advertisements: Would you like to advertise your event, job vacancy or other news item in our newsletter? If so, please contact Jake Lacey (jake.lacey@unimelb.edu.au) Advertising rates are: Not-for-profit adverts: free of charge and For-profit adverts: \$50 per advert.

ASM History SIG: 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

ASM National Office:

9/397 Smith Street, Fitzroy VIC 3065
Tel: 1300 656 423
Fax: 1300 655 841
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Weblink: <http://www.theasm.org.au/>
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3065
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asmvicbranch@gmail.com

A list of the other ASM branches can be found online at <http://www.theasm.org.au/>

