



# Victorian Branch Australian Plant Pathology Seminar talks and Annual General Meeting

- Hosted by The University of Melbourne  
In-person and Online - Tuesday July 23rd



**This meeting will be open virtually to all non-APPS and non-Victorian APPS members**

## Program:

- 9:00 arrival for coffee
- 9:25 – 9:30 Welcome and Introductions
- 9:30 - 10:15 Prof Paul Taylor (35 min + 10)
- 10:15 - 10:35 Dr. Pragya Kant (15 + 5)
- 10:35 - 10:55 Break
- 10:55 - 11:10 Ayushree Kharel (PhD Student) (10 + 5)
- 11:10 - 11:25 Lorena Rodriguez (PhD Student (10 + 5)
- 11:30 - 12:15 Victorian APPS AGM
- Lunch (**only open to current Vic APPS members**)

Please use the below link to select from the following options:

<https://doodle.com/meeting/participate/id/dwRLm7Rb>

**Yes** – Will be attending in person

**If I have to** – Will be attending virtually

**No** – Will not be attending the meeting

**Poll will close on the 15<sup>th</sup> July.**



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## How to get there

### Public parking

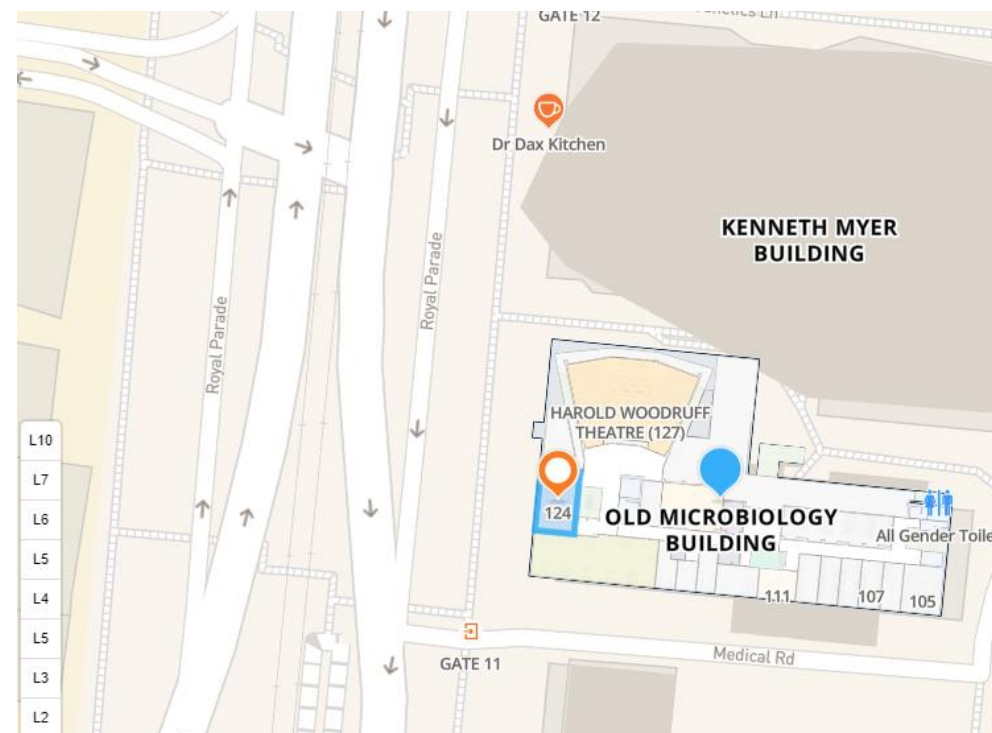
Public parking is available at three locations within the Parkville campus. A number of other public car parks are also available within walking distance from the Parkville campus.

### University Square Car Park

- Entry: Entrance at 244 Bouverie Street or 206 Berkeley Street. [Click here for map](#)
- Hours: Monday - Sunday 6:00am to midnight
- Availability: During semester (weekdays) the car park fills and closes to public parking, normally around 9:00am - 9:30am
- 2022 fees and charges: \$15.00 up to 4 hours. \$30.00 all day. \$10.00 after 5:00pm Monday to Friday, weekends and public holidays.
- Payment:
  - Press the casual entry button at the gate.
  - Upon exit, the boom gate will indicate the amount owing and you'll be able to pay with your debit or credit card at the gate.
  - To pay with cash, you'll need to pay at the pay machines located on level 1 prior to exiting the car park. To pay at this machine you'll need to remember your vehicle's licence plate number.
- For assistance: Please use the intercoms at the vehicle entries, exits and at the pay machines.

The website does mention the Royal Parade car park but currently this carpark is permit only. There is also metered parking on the streets around and north of campus. With driving to UoM it is always advisable to come early to secure a parking spot.

Public transport is available with trams up Swanston St and Royal Parade from the city.



The meeting will be held in Building 184,  
Level 1, room 124, Thomas Cherry Room

<https://www.google.com/maps/place/University+of+Melbourne+Building+184/@-37.7986048,144.9581873,20z/data=!4m6!3m5!1s0x6ad65d2cf795e5dd:0xd47b88f02b271233!8m2!3d-37.7987035!4d144.9585355!16s%2Fg%2F11c6v5lhb4?authuser=0&entry=ttu>



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## Keynote Speaker:

Professor Paul WJ Taylor  
University of Melbourne  
Australia



Prof Taylor is an Honorary Professorial Fellow in the Faculty of Science at the University of Melbourne, Australia. Up to 2021 he had 26 years of research, teaching, and leadership experience in the Faculty of Veterinary and Agricultural Sciences at the University of Melbourne. Prior to joining the University, he was a Research officer with the Queensland sugar industry involved in Plant Pathology and Biotechnology research for sugarcane crop improvement.

Prof Taylor played significant leadership in the Faculty and University in international collaboration and engagement, particularly for south-east Asian countries when he served as Associate Dean International. In 2017 he was awarded a World Class Professor fellowship by the Indonesian government in recognition of his collaborations with Indonesian Universities; and in 2024 was awarded an International Research Fellowship by Chiang Mai University, Thailand to undertake mentoring and research in the Faculty of Science. Prof Taylor's research has been in the areas of Plant Soil Health, Plant Biosecurity, Fungal Pathogen Genomics and Plant Biotechnology which has produced 164 peer-reviewed journal papers and 21 book chapters with over 7,200 citations and an H-Index of 49 (Scopus). He has successfully supervised to completion 12 Masters and 40 PhD students (28 PhD as Principal supervisor) as well co supervising postgraduate students in Thai and Malaysian Universities. He has active research collaborations with colleagues in the Westerdijk Fungal Biodiversity Centre, Netherlands; Hong Kong University; and Chiang Mai University in Thailand.

Prof Taylor is a member of the International Sub commission on *Colletotrichum* Taxonomy and has published many papers on taxonomy, biology and pathogenicity of *Colletotrichum* species, particularly in capsicum (chili) and citrus. Current research involves the impact of endemic *Colletotrichum* spp from native Australian plants on agricultural crops; *Colletotrichum* species causing twig dieback in citrus; and the incidence and severity of *Pythium* spp and *Fusarium oxysporum* on processing tomatoes and the insecticidal producing plant pyrethrum.



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## Seminar Speaker:

Dr. Pragya Kant

Agriculture Victoria Research



Dr. Pragya Kant has over 20 years of expertise in molecular biology, plant pathology, and bacteriology. She earned her PhD in Biotechnology and Molecular Biology from India and completed post-doctoral and research associate fellowships at leading research institutes in Israel and Canada, focusing on the molecular aspects of biotic and abiotic stress tolerance in crops.

For the past decade, Dr. Kant has been with Agriculture Victoria Research as a research scientist, contributing to numerous research projects. She will share insights from her latest project, "Improving Preparedness for *Xylella fastidiosa*".



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## Seminar Speaker – PhD Students:

Ayushree Kharel  
Deakin University



*Phytophthora cinnamomi* poses a significant threat to global food security and environmental sustainability, affecting nearly 5000 plant species, including economically important crops like avocado and chestnut, and is a prominent invasive species in Australia's natural ecosystems. Traditional management techniques are inadequate due to limited understanding of the pathogenicity and survival strategies of the pathogen. This study addresses three key aspects of *P. cinnamomi* biology and pathogenicity.

Firstly, we established *Nicotiana benthamiana*, a native Australian plant, as a model host species to study plant-*P. cinnamomi* interactions, providing insights into disease dynamics. Secondly, we explored the sterol auxotrophic nature of the pathogen and identified proteins responsible for sterol sensing and recruitment. Lastly, we developed a successful transformation protocol for the recalcitrant *P. cinnamomi*, which will aid in genetic studies. These integrated approaches offer valuable insights into *P. cinnamomi* biology and will contribute to the development of innovative strategies for managing *Phytophthora*-induced diseases.



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## Seminar Speaker – PhD Students:

Lorena Rodriguez Coy  
La Trobe University



Gray mould, caused by *Botrytis cinerea*, is a pathogen impacting a wide range of crops, with prevalent fungicide resistance. Products derived from microorganisms offer an ecofriendly alternative to chemical controls that could be incorporated into biocontrol strategies. Among these biologicals, mycoviruses have emerged as potential biological control agents. Mycoviruses are widespread viruses infecting fungi, including *B. cinerea*, that are being investigated for their role in such approaches. Notably, there are currently no reports of the mycoviral diversity in *B. cinerea* in Australia. In this study, we explore the mycovirome of *B. cinerea* isolates from various hosts across different states in Australia. RNASeq analyses was used to investigate mycovirus diversity in 24 Australian *B. cinerea* isolates from diverse hosts and geographic regions. This lead to the identification of sequence contigs that corresponded to either partial or complete genomes of mycoviruses. Most isolates were infected with more than one mycovirus, and some isolates from different hosts shared identical or near-identical mycoviruses suggesting a recent transmission.

To examine the impact of the mycovirus on the host, we will document alterations in the *in vitro* and *planta* phenotype and growth characteristics of isolates with different mycoviromes. This study has enhanced our understanding of mycoviral diversity, and identified mycoviruses that could serve as active ingredients in biological products for the effective control of *B. cinerea*. Furthermore, the identification of fungal viruses is a crucial step in initiating an understanding of the dynamic relationship between mycoviruses and the RNA silencing machinery (RNAi) in fungi (Rodriguez Coy *et al.*, 2022). This opens up a new field of study where viruses influence or manipulate host gene expression regulation, with implications for both fundamental mycology and potential applications.