



Laboratory Technicians'
Association of Victoria Inc.

LABCON2025

Pullman Melbourne On The Park
192 Wellington Parade East Melbourne

13 & 14 November 2025

Bringing Excellence to Science Education

*The Conference specifically
for Laboratory Technicians*

**PROGRAM AND
HANDBOOK**

President's Welcome

LABCON2025 General Information

Welcome to **LABCON2025**,

This year we are at Pullman Melbourne on the Park located at 192 Wellington Parade, East Melbourne.

We will continue with our new format introduced in 2024 where there will be 45-minute and 90-minute workshops. This is a unique opportunity within Victoria for us to receive professional development from companies and fellow laboratory technicians.

This year we have secured a session to be presented to us by the Department of Education on Health and Safety. We continue to strive to assist our profession.

LABCON2025 offers us not only an opportunity to meet with suppliers in person, attend sessions to further develop our skills and provide us with information on how changes within the way school science is evolving, but an opportunity to attend the annual general meeting of our association. Please remember to fill in your passports for a chance to win a wonderful prize.

Welcome once more to **LABCON2025** and I hope to see you during the conference.

Mary L. Jones
LTAV President

Conference Catering

Lunch and coffee breaks on Thursday and Friday are included in the registration fees for delegates.

All catering will be served in the vicinity of exhibitors located on Level 1.

Conference Catering Diets

Only those who have pre-booked a special diet are requested to collect their meal from the special diet buffet on Level 1.

In consideration for other delegates do not take food from the general buffet.

Conference Dinner

(Tickets must have been pre booked)

If you have booked to attend the dinner you will find a dinner ticket in your envelope ... please check, if in doubt see staff at the registration desk at lunchtime on Thursday.

No ticket means you are not booked to attend the dinner.

Conference E-Satchel

(Important information)

LTAV has taken the decision to encourage sustainability and environmental practices and as such have introduced the **E-Satchel for LABCON this year**. A satchel will not be provided.

If you feel you need to have a bag then please bring one with you.

Conference workshops

You may only attend the workshops for which you have been confirmed.

Should you try to go to a workshop that you have not been booked for you will be asked to leave.

Mobile Phones

Please ensure mobile phones are turned off during all sessions.

Name Badges

Delegates are required to wear their Conference name badge at all times to ensure only LABCON Delegate access to workshops and food being provided.

Failure to wear/display your name badge may result in being refused access to catering.

Speakers

Speakers need to ensure they are in their room at the break prior to their presentation. We do not have audio visual technicians in all rooms, so please ensure you are familiar with your equipment and presentation requirements.

Please vacate the room quickly after your presentation to enable the next presenter to set up.

Spencer Halse, Labcon Speaker Liaison, will be onsite to assist during LABCON.

What to wear

Presenters and delegates are required to wear appropriate clothing during the conference.

We do not have labs for workshops this year but it would be preferred that you wear closed shoes to sessions as some will include demonstrations.

CONFERENCE INFORMATION

Marg Scarlett
LABCON Conference Manager
Post Office Box 208, Lynbrook VIC 3975
Tel: 0419 805 362 or email info@margscarlett.com

Keynote Speakers

Thursday 13 November 2025 • 9.00am-10.00am



Professor Kon Mouzakis

Software and Technology Innovation,
Deakin University

AI and the Impact on the Health Domain

Discussion around the role that AI has played in the field of Health and Education, with example of work undertaken by Deakin's Applied AI Initiative in these areas.

Professor Kon Mouzakis is a Professor of Software and Technology Innovation at Deakin University. He is a Decision Support and Software Development expert with over 30 years of experience and currently holds the position of Co-Director of the Applied Artificial Intelligence Institute (A²I²). In 2018, Kon was appointed as the Director, Australian Research Council, Industrial Transformation Research Hub for Digital Enhanced Living, and in 2022, was conferred with the title of Deakin Distinguished Professor.

Over the past 5 years, Kon has attracted over \$15 million in contract R&D and consulting activities. He has developed software solutions and concept demonstrators for organisations, including Dementia Australia, Black Dog Institute, Defence Science and Technology Group (DSTG), and the World Economic Forum. In collaboration with the Alfred Hospital's Trauma Centre, he developed the Trauma Reception and Resuscitation Decision Support tool. This world first development reduced the number of errors that clinicians made in the first 30 minutes of patient arrival.

Kon is an advisor to the Trauma Centre of the Alfred Hospital, and to several technology companies in Australia. He is a tenured senior academic at Deakin University and, prior to this, at Swinburne University of Technology where he taught and researched in the areas of mobile technology, usability of complex systems and interface design.

Friday 14 November 2025 • 9.00am-10.00am



Dr Sylvie Callegari

Senior Research Officer,
Walter and Eliza Hall of Medical Research WEHI

PINK Power: Cleaning out damaged mitochondria to treat Parkinson's disease

For over 20 years, we have known that mutations in the PINK1 protein cause Parkinson's disease. PINK1 is a mitochondrial damage sensor that accumulates on the surface of damaged mitochondria. As it accumulates, PINK1 is activated and it generates a unique signal that triggers the process of mitochondrial clean up, known as mitophagy. When PINK1 doesn't work, damaged mitochondria build up, leading to the death of neurons in the brain – a hallmark of Parkinson's disease. Therefore, boosting the activity of PINK1 is a promising strategy for cleaning up damaged mitochondria in Parkinson's patients. However, despite decades of research into PINK1, we had never seen what human PINK1 looks like or how it sits on damaged mitochondria. Using Cryo-EM, we visualise, for the first time, human PINK1 docked on the surface of damaged mitochondria. This also uncovers a never-before-seen composition of proteins on the mitochondrial surface, challenging our view of what the surface of mitochondria look like. Our work opens up new therapeutic possibilities for using PINK1 to clean up damaged mitochondria in Parkinson's disease patients.

Dr Sylvie Callegari completed her PhD at the University of South Australia before moving to Göttingen, Germany for a postdoctor position in a lab studying mitochondria and its role in neurodegenerative disease.

In 2019, she returned to Australia to join Prof. David Komander's lab at WEHI as a Senior Research Officer, where she has been leading the projects on mitochondrial quality control and Parkinson's disease.

She uses a range of techniques in the lab, including cutting edge cell biology and structural biology techniques and has made key contributions to understanding what the Parkinson's disease-linked protein PINK1 looks like (Callegari et al. Science 2025) and how it is activated (Gan, Callegari et al. Nature 2022; Gan, Callegari et al. Sci. Adv. 2024).

With this new understanding of how PINK1 works, Dr Callegari is focussing on developing strategies to boost PINK1 activity to treat Parkinson's disease.

LABCON2025 – Program in Detail



Thursday 13 November 2025

7.30am	Registration			Grand Ballroom Lobby
8.50am-9.00am	Conference Opening Day One Mary Jones, President LTAV			Ballroom 2 & 3
9.00am-10.00am	KEYNOTE SPEAKER AI and the Impact on the Health Domain Professor Kon Mouzakis, Deakin University			
10.00am-10.30am	ANNUAL GENERAL MEETING Mary Jones, President, LTAV			
10.30am-11.00am	Morning Tea and Exhibition			Grand Ballroom Lobby
11.00am -12.45pm	Concurrent workshops x 90 minutes			
T1 Fun with food Kellee Ballard Emerald Secondary College	Stradbroke	T2 Health and Safety with the Department of Education Brendan Henderson, Nicole Selig, Deane Grey, Liam Hornby, David Ford; Mario Cocurullo Department of Education	T3 TESEP Rock and Mineral Kit and TESEP Education Programs Peter Nisbet	T4 Climate in YOUR Hands: Exploring the Monash Simple Climate Model James Driscoll & Anna Vonneveld Monash University
11.00am-11.45am	Concurrent workshops x 45 minutes			
T5 Fire in the Lab Dale Carroll LTAV National Networks Coordinator	Delacombe	T6 OHS in the Lab: Reasonably Practicable? Naomi Peters Werribee Secondary College	T7 Microscopes: The Orange & the Purple Harvey Edwards Principles and Practice	T8 Decontamination of Laboratory Waste Glenda Arendse Peninsula Grammar School
11.45am -12.00pm	CHANGE ROOMS			
12.00pm-12.45pm	Concurrent workshops x 45 minutes			
T9 Cleaning, Sorting, Saving Money, Time and Sanity Leonie Leishman Cranbourne East Secondary College	WITHDRAWN	T10 Face to Face V Online Demonstrations – what works best Dr Jeff Hughes RMIT	T11 Structures and Materials: Building Bridges in the Classroom Stuart Lewis Scientrific Pty Ltd	T12 Ancient Insights: First Nations Science in Action Robyn Price & Jenny Callahan Loreto College Ballarat
12.45pm-1.30pm	Lunch and exhibition			Grand Ballroom Lobby
1.30pm-3.15pm	Concurrent workshops x 90 minutes			

Delegates are encouraged to use the breaks to speak to our sponsors and exhibitors get your exhibition passport signed and learn about the latest goods and services available.

T13 The Best Tool for Measuring pH since Litmus Paper – PASCO pH Sensor Doug Bail & Megan Simkin Cider House Tech Pty Ltd	Ballroom 2	T14 Discover how Micro:bits can Transform Data Logging in Years 7-20 Science without Breaking the Budget! Amanda Brick Modern Teaching Aids	Huntingfield	T15 Microscale Chemistry for Student Practicals: Doing more for less PLUS Demonstrating an Electric Bunsen Burner – your questions answered Daniela Migliorati, Science Supply Australia & Marcia Rogerson, Rivercrest Christian College	Hopetoun
T16 Workplace Inspections and Laboratory Audits 101 Lisa Stevens & Dr Neale Jackson Lisa J Stevens & Associates	Ballroom 1	T17 What Rock is That? Peter Nisbet	Hotham		
1.30pm-2.15pm		Concurrent workshops x 45 minutes			
T18 Meteorites Trevor Hand MPAS	Stradbroke	T19 The Science of the Ridiculous Stuart Lewis Scientrific Pty Ltd	Delacombe	T20 A Hands-On Guide to Keeping your Lab Equipment Functioning! Rod Aggett EduSupplies	Ballroom 3
2.15pm -2.30pm		CHANGE ROOMS			
2.30pm-3.15pm		Concurrent workshops x 45 minutes			
T21 Reducing Waste in the School Laboratory Rebecca Blowfield Billanook College	Ballroom 3	T22 STEM Approaches using Data Loggers Stuart Lewis Scientrific Pty Ltd	Delacombe	T23 Blood in Forensics Ivana Poulton Optimum Technology	Stradbroke
3.15pm –3.30pm		Afternoon Tea and Exhibition		Grand Ballroom Lobby	
3.30pm-4.15pm		Concurrent workshops x 45 minutes			
T24 Magic of Science from Dinosaurs to Rockets Peter Razos Caulfield Grammar	Hotham	T25 Get Hands on with 3D Printing for your Lab! Amanda Brick Modern Teaching Aids	Ballroom 1	T26 How to be a MacGyver 101 Mary Jones, Keilor Downs College & Lynette Baker, Assumption College Kilmore	Ballroom 2
T27 Redefining Safe Chemical Handling, Storage and Disposal in Today's School Laboratory Gaya Withana Doncaster Secondary College	Ballroom 3	T28 A Healthy Land – Measuring the Environment with Vernier Data Loggers Stuart Lewis Scientrific Pty Ltd	Delacombe	T29 Algae Balls: Spinach and Photosynthesis Ros Clark, Melbourne High School & Sonia Holland, Star of The Sea College	Stradbroke
T30 How we do what we do Geoff Gleadall LTAV Policy Officer	Hopetoun	T31 Gel Electrophoresis-A Powerful tool of Learning for Junior and Senior Science Dr Radhika Iyer, Prahran High School	Huntingfield		
4.15pm		Conference Close – Day One			
6.00pm-10.00pm		CONFERENCE DINNER Sponsored by MTA		Grand Ballroom 2 & 3	

LABCON2025 – Program in Detail



Friday 14 November 2025

8.00am	Registration	Grand Ballroom Lobby
8.55am-9.00am	Conference Opening Day Two Mary Jones , President LTAV	Ballroom 2 & 3
9.00am-10.00am	KEYNOTE SPEAKER <i>PINK Power: Cleaning out damaged mitochondria to treat Parkinson's disease</i> Dr Sylvie Callegari , WEHI	
10.00am-10.30am	Morning Tea and Exhibition	Grand Ballroom Lobby
10.30am -12.15pm	Concurrent workshops x 90 minutes	
F40 Discover how Micro:bits can Transform Data Logging in Years 7-20 Science without Breaking the Budget! Amanda Brick, Modern Teaching Aids	F41 Health and Safety with the Department of Education Brendan Henderson, Nicole Selig, Deane Grey, Liam Hornby, David Ford; Mario Cocurullo Department of Education	F42 Renewable and Non-Renewable Resources. Wind, Solar or Coal – Which should and could power LABCON 2025? James Driscoll & Anna Vonneveld Monash University
10.30am-11.15am	Concurrent workshops x 45 minutes	
F43 OHS in the Lab: Reasonably Practicable? Naomi Peters Werribee Secondary College	F44 Chemical Disposals for the School Laboratories 101 Callum Stagg, DGL Envirostore & Lisa Stevens, Lisa J Stevens & Associated	F45 How to be a MacGyver 101 Mary Jones, Keilor Downs College & Lynette Baker, Assumption College Kilmore
F46 Microscopes: The Orange & the Purple Harvey Edwards Principles and Practice	F47 Lab Essentials: The Smart Cart Doug Bail & Megan Simkin Cider House Tech Pty Ltd	
11.15am -11.30am	CHANGE ROOMS	
11.30am-12.15am	Concurrent workshops x 45 minutes	
F48 Ancient Insights: First Nations Science in Action Robyn Price & Jenny Callahan Loreto College Ballarat	F49 Key Experiments: Inquiry Approaches using Vernier Data Loggers in High School Science Stuart Lewis Scientrific Pty Ltd	F50 Complex made Simplex-Sharing ideas & tips of the trade to help your everyday work! Glenda Arendse Peninsula Grammar School
F51 Gel Electrophoresis – A Powerful tool of Learning for Junior and Senior Science Dr Radhika Iyer Pahran High School	F52 Fire in the Lab Dale Carroll LTAV National Networks Coordinator	
12.15pm-1.00pm	Lunch and exhibition	Grand Ballroom Lobby

1.00pm - 2.45pm	Concurrent workshops x 90 minutes			
F53 Practical Investigations of Electromagnetic Induction Doug Bail & Megan Simkin Cider House Tech Pty Ltd	Ballroom 2	F54 Fun with food Kellee Ballard Emerald Secondary College	F55 Microscale Chemistry for Student Practicals: Doing more for less PLUS Demonstrating an Electric Bunsen Burner – your questions answered Daniela Migliorati, Science Supply Australia & Marcia Rogerson, Rivercrest Christian College	F56 TEACH, the students well ... learning should not by accident! Lisa Stevens & Dr Neale Jackson Lisa J Stevens & Associates
1.00pm - 1.45pm	Concurrent workshops x 45 minutes			
F57 There must be an easier way? Iris Avery Balwyn High School	Hopetoun	F58 A Hands-On Guide to Keeping your Lab Equipment Functioning! Rod Aggett EduSupplies	F59 Tips and Tricks for Techs Leonie Leishman Cranbourne East Secondary College	F60 via ZOOM Dangerous Chemicals! How can I use them Safely? Phillip & Eva Crisp RiskAssess
1.45pm - 2.00pm	CHANGE ROOMS			
2.00pm - 2.45pm	Concurrent workshops x 45 minutes			
F61 How we do what we do Geoff Gleadall LTAV Policy Officer	Hotham	F62 The Science of Us-Measuring Humans using Vernier Data Loggers Stuart Lewis, Scientrific Pty Ltd	F63 Science Assist, Explore the New Web Page Dale Carroll LTAV National Networks Coordinator	F64 Volcanoes what a Blast! Peter Nisbet
2.45pm - 3.15pm	Afternoon Tea and Exhibition Draw Exhibitor Passport Prizes EXHIBITION PRIZE DRAW Ensure your passport is in the draw to win one of the many prizes on offer.			Grand Ballroom Lobby
3.15pm - 4.00pm	Concurrent workshops x 45 minutes			
F65 Redefining Safe Chemical Handling, Storage and Disposal in Today's School Laboratory Gaya Withana Doncaster Secondary College	Ballroom 3	F66 Application of Light in Forensic Science Ivana Poulton Optimum Technology	F67 Magic of Science from Dinosaurs to Rockets Peter Razos Caulfield Grammar	F68 Meteorites Trevor Hand MPAS
F69 Reducing Waste in the School Laboratory Rebecca Blowfield Billanook College	Ballroom 2	F70 Get Hands on with 3D Printing for your Lab! Amanda Brick Modern Teaching Aids	F71 Triple R Meeting Deborah Sun Waverley Christian College	F72 Algae Balls: Spinach and Photosynthesis Ros Clark, Melbourne High School & Sonia Holland, Star of The Sea College
4.15pm	Conference Close			

LABCON2025 Workshop Descriptions – Alphabetical by topic

A Hands-On Guide to keeping your lab equipment functioning!

Rod Aggett, EduSupplies

T20 F58

Learn how to keep your school lab gear in top shape! Join us for a presentation on microscope, balance and pipette maintenance and care. Gain invaluable insights and practical tips for troubleshooting issues as well as step by step guide on how to get your equipment back up and running!

Repeat Session

A Healthy Land – Measuring the environment with Vernier Dataloggers

Stuart Lewis, Scientrific Pty Ltd

T28

The natural world is made-up of many complex systems that connect together.

This workshop will look at using datalogging to measure various environmental conditions in plants, the soil and water.

- Looking at chlorophyll in plants
- Investigating plant photosynthesis

Repeat Session

Algal Balls, Spinach and Photosynthesis

Ros Clark, Melbourne High School & Sonia Holland, Star of The Sea College

T29 F72

Are you looking for cheap, simple and reliable Photosynthesis Practicals that are easy to prepare and give great results? Learn how to grow Algae cultures and make your own Algal Balls. Get ideas for using Algal balls in practicals for Year 11 and 12 Biology. Let's also explore spinach and CO₂ probes, to demonstrate Photosynthesis and Cellular Respiration.

Repeat Session

Ancient Insights: First Nations Science in Action

Robyn Price, Loreto College Ballarat

T12 F48

The Inquiry for Indigenous Science Students program, an initiative of the CSIRO, has been used by Loreto College Ballarat to explore scientific concepts from a First Nations perspective.

This workshop aims to demonstrate practical activities with a First Nations context and showcase additional opportunities to allow scientific exploration of First Nations Culture

New Session

Application of Light in Forensic Science

Ivana Poulton, Optimum Technology

F66

Using of light in forensic science becomes an art where property of light is combined with property of matter in order to gather information about evidence at crime scenes. Light can be used to gather information in all fields of forensic sciences, e.g. document examination, fingerprint detection, shoe print recording, biological fluids detection etc.

Practical Application Fluorescence Mode.

New Session

Blood and Forensics

Ivana Poulton, Optimum Technology

T23

Optical Examination of Blood. Untreated dry blood does not show significant photoluminescence properties. Blood has a broad absorption spectrum in the entire light region (UV, visible and IR). Blood exhibits distinctive strong absorption maximum at around 415nm. It appears "black" than black". Any marks that may look like dried blood, but exhibit fluorescence under the forensic light source, are not blood. (Observation of blood and tomato sauce under 470nm blue light and orange goggles) Luminol has been used in crime scenes for more than half a century. It is the most effective method in detection for locating minute traces blood – even if the crime scene has been cleaned up.

New Session

Chemical Disposals for the School Laboratories 101

Callum Stagg, DGL Envirostore & Lisa Stevens, Lisa J Stevens & Associates

F44

Do you know the difference between Industrial Waste and Trade Waste. Do you know what can and cannot be tipped down a Victorian laboratory sink? This session will cover the

regulatory framework for laboratory waste disposal, different waste streams, trade waste agreements, and how laboratory technicians can work with their chemical waste contractor to recycle, reduce costs (and potential fines) while understanding the importance of responsible chemical disposal.

Repeat Session

Cleaning, sorting, saving money, time and sanity

Leonie Leishman, Cranbourne East Secondary College

T9

Some new ideas for forensic science and maybe some not so new ideas. Planning and preparation of samples for class use. Observation of a crime scene. How to make a dead body, decomposition, Entomology, electrophoresis, chromatography, fibres, blood typing, drug testing, soil testing, foot prints, bones.

New Session

Climate in YOUR hands: Exploring the Monash Simple Climate Model

James Driscoll & Anna Zonneveld, Monash University

T4

Climate change is now a core part of the new Victorian Curriculum and teaching it doesn't have to be daunting. Join us for a hands-on, curriculum-aligned workshop using the Monash Simple Climate Model, a powerful digital tool designed to make climate systems science accessible, engaging, and interactive for students. Explore the scientific principles behind atmospheric gases, the greenhouse effect, feedback loops, and global temperature rise through a model that lets students simulate the future of Earth's climate.

New Session

Complex made Simple-Sharing ideas and tips of the trade to help your everyday work!

Glenda Arendse, Peninsula Grammar School

F50

Due to the hectic schedules most Lab technicians and assistants deal with on a daily basis, this workshop is designed to share ideas to lighten your load and increase efficiency. The focus is on suggesting "how to do" and "what to do" bearing in

LABCON2025 Workshop Descriptions – Alphabetical by topic

mind lab safety, budget and other constraints. Attendees are encouraged to bring along ideas to contribute to discussions.

New Session

Dangerous chemicals! How can I use them safely?

Note this workshop is via ZOOM

Phillip & Eva Crisp, RiskAssess

F60

The common indicator, phenolphthalein, may cause cancer and is suspected of causing genetic defects and damaging fertility. Borax, a key ingredient of 'slime', may damage fertility or the unborn child. We will explain how large numbers of chemicals can be used safely, provided risks are assessed and control measures are put in place. This is important to maintain the interest of students in science and to increase their enjoyment of practical experiences.

New Session

Decontaminating General Chemical Waste

Glenda Arendse, Peninsula Grammar

T8

To minimise onsite chemical waste accumulation, and reduce potentially harmful effects to the environment, maximum efforts are made to decontaminate chemical waste produced in school laboratory practicals. Chemical processes of extraction and precipitation are employed to treat chemical waste to reduce hazardous waste volumes stored onsite before accessing external disposal contractors (usually once a year) and ensure that any flushed waste is not detrimental to the environment.

Repeat Session

Discover how Micro: bits can transform data logging in Years 7-10 science without breaking the budget!

Amanda Brick, Modern Teaching Aids

T14 F40

In this hands-on session, you'll explore how these tiny devices make real-time data collection fun, accessible, and meaningful for students. Learn just how simple and versatile Micro:bits are, even with no prior experience. Experiment with real

applications-track temperature, test soil moisture, and explore acceleration in action – and have a go at using a Micro:bit to collect and analyse your own data!

New Session

Face to Face V Online Demonstrations – what works best?

Dr Jeff Hughes, RMIT

T10

Doing chemical demonstrations in front of a class or viewing online - what works best? There are pros and cons for both methods and this session will explore these with demonstrations that work best in each medium.

New Session

Fire in the Lab

Dale Carroll, LTAV National Networks Coordinator

T5 F52

How to treat a fire. Although a fire in the laboratory is a fairly rare event, it is still good to know how to deal with it "just in case". This session will cover the principals of fires and then how to deal with different scenarios, what extinguisher to use for what and how they operate.

New Session

Fun with Food

Kellee Ballard, Emerald Secondary College

T1 F54

I hope to share with you my love of food and science. There will be demonstrations on how to make honeycomb, cottage cheese, ice cream in a bag and jelly worms. I will also be sharing some of my ideas for science themed food. Lots of things to taste plus some interesting science as well.

New Session

Gel Electrophoresis – A powerful tool of learning for Junior and Senior Science

Dr Radhika Iyer, Prahran High School

T31 F51

Gel Electrophoresis is a simple but fascinating technique enabling Junior as well as Senior Science students to engage in a variety of ways to enhance their learning in their respective

areas of study including Forensic Sciences, Evolutionary Biology, Genetics, Molecular biology, immunology and environmental biology. Let's explore these concepts together through a hands-on learning experience.

Repeat Session

Get Hands-On with 3D Printing for Your Lab

Amanda Brick, Modern Teaching Aids

T25 F70

Join this hands-on session to see a 3D printer in action and explore real classroom and lab applications. Learn how to find pre-made templates, print your own resources, and save money on custom solutions. No experience needed - just bring your curiosity (**and a laptop or iPad if you can!**). A practical, fun intro that will get you thinking about what's possible.

New Session

Health and Safety with the Department of Education

Brendan Henderson, Department of Education

T2 F41

The OHS Services team within the Department of Education will provide an opportunity for you to obtain an understanding of how they can assist your school when it comes to OHS. Additionally, the session will include live Q&A on OHS topics which you have raised through various channels including chemical management, risk assessments, safe work procedures and more.

New Session

How to be a MacGyver 101

Mary Jones, Keilor Downs College and Lynette Baker, Assumption College Kilmore

T26 F45

You are the secret agent in charge of often finding new and exciting content for your science and STEM curriculums. Using multitools and duct tape to achieve problem solving and peace within the department. We have all had to improvise and adapt to the changing environment and demands of laboratory work. Join us as we take a trip in the wonderful dimension of STEM activities and problem solve our way out of the issues and into a brighter understanding for the students.

New Session

LABCON2025 Workshop Descriptions – Alphabetical by topic

How we do what we do

Geoff Gleadall, LTAV Policy Officer

T30 F61

LTAV is an organisation that is run by volunteers. Having well defined policies gives those volunteers clear and transparent guides about how we go about this. This session gives an overview of your association's policies and how we go about common tasks. The session will cover our rules (constitution) and Aims as well as policies on how we go about tasks, who in the committee is responsible for what tasks, and policies that outline LTAV's view of what is best practice in our profession. This session is intended to demystify the processes and procedures and perhaps encourage members to step forward and take part in this important work.

New Session

Key experiments: Inquiry approaches using Vernier Data Loggers in High School Science

Stuart Lewis, Scientrific Pty Ltd

F49

Are you looking for new ways of collecting data related to experiments in the Australian Curriculum? Multiple workstations will be set up for participants to experiment with support from our presenter.

The experiments may include:

- Boyle's Law and chemical reaction rates
- Spectroscopy and Beers Law
- Newton's laws of motion
- Electrical induction and electromagnetism
- Respiration

Ideas for further investigations will also be explored

Repeat Session

Lab Essential - The Smart Cart

Doug Bail & Megan Simkin, Cider House Tech Pty Ltd

F47

The Smart Cart is the ultimate tool for your physics lab for studying kinematics, dynamics, Newton's Laws, and more. It includes built-in sensors for measuring force, position, velocity, three axes of acceleration, and three axes of rotational velocity.

The versatile Smart Cart can collect measurements on or off a track and transmit the data wirelessly over Bluetooth. It is a wireless dynamics cart that combines all the necessary sensors, without requiring any additional hardware.

Repeat Session

Magic of Science From Dinosaurs to Rockets

Peter Razos, Caulfield Grammar

T24 F67

Be prepared to have some fun and to acquire resources that will enable each participant to make an effective contribution to the delivery of several engaging units of work. These range from STEAM (building of Rockets and real dinosaurs) to teaching the Science of Magic.

Participants are encouraged to bring their own device to fully explore how these are used to engage and motivate students at Caulfield.

All participants will be given access to these resources. Have a sneak look at the Science of Magic Unit

<https://www.dynamicscience.com.au/tester/solutions1/magicofsci/UntitledFrameset-2.html> or the Unit 3 Chemistry: https://www.dynamicscience.com.au/tester/solutions1/chemistry/timelineunit4_2024_2027.html

Repeat Session

Meteorites

Trevor Hand, MPAS

T18 F68

Most meteorites burn up in the atmosphere and never make it to the ground, but some do! Learn what happens during a meteorite impact, how much energy they produce and what happens to the material they impact. Hear about some famous impacts and see real examples of various types of meteorites, including an 11kg example from northern Argentina. After the talk you can hold them in your bare hands, so be sure to have a camera with you.

Repeat session

Microscale Chemistry for Student Practicals: Doing more for less PLUS Demonstrating an Electric Bunsen Burner – Your questions answered!

Daniela Migliorati, Science Supply Australia
& Marcia Rogerson, Rivercrest Christian College

T15 F55

This presentation will explore how using small quantities of chemicals not only saves money but also reduces waste, improves safety for students and supports sustainability in lab practises. This will be a hands-on session where you will learn practical tips to implement micro scale chemical experiments, produce minimal waste and best of all, no more test tubes to wash! This session will also include a demonstration of an electric Bunsen burner flame test.

New Session

Microscopes: The Orange & The Purple

Harvey Edwards, Principles and Practice

T7 F46

Many schools have the common monocular orange or the binocular purple microscopes. Some work off an AC Adapter, others plug into the wall. Some have batteries, some don't. Some are even white! After all my years, I've learnt a few tricks to keep them in top condition – come along and I will share them with you. Even bring one with you, if you care.

New Session

OHS in the Lab, Reasonably Practicable?

Naomi Peters, Werribee Secondary College

T6 F43

Lab OHS Compliance, one Labbie's experiences. As the Lab Manager and HSR of a DET school, I oversee many aspects of OHS Compliance in my duties. I will discuss writing SWPs for chemicals, changes to SDS requirements from DET, finding information on PAL, Risk Registers and getting ready for audits (such as the current OHS E&Y external audits), plus the move of OHS onto EduSafe Plus, which DET schools will be required to do if they haven't already started. I'm not an expert, so it's more of a chance for a conversation between Lab Techs rather than me telling people how to do it all...

OHS is really coming into focus within DET and do you know

LABCON2025 Workshop Descriptions – Alphabetical by topic

who to call? Or where to find that information? Let's chat...

New Session

Practical investigations of electromagnetic induction

Doug Bail & Megan Simkin, Cider House Tech Pty Ltd F53

A hands-on introduction to electromagnetic induction. Often viewed as "hard" by students, the use of voltage and/or current sensors can bring this topic alive for students, generating a broader, deeper understanding and in much less time and lower cost than traditional methods. Even your teachers might understand the topic! We'll look at generating Lenz and Faraday's laws from first hand data, generators, and transformers.

Repeat Session

Redefining safe chemical handling, storage, and disposal in Today's school laboratory

Gaya Withana, Doncaster Secondary College T27 f65

Over time, school laboratory practices have evolved with a strong emphasis on safety and compliance. Key updates include stricter PPE requirements, removal of banned chemicals, and improved storage protocols, such as segregation by chemical class and use of containment trays, even for solids. These changes support safer working conditions and help technicians maintain a compliant, efficient laboratory environment. The main focus is on Q/A session with other lab technicians Some Language tone credits to ChatGPT.

New Session

Reducing waste in the school laboratory

Rebecca Blowfield, Billanook College T21 F69

Landfill sites are nearing capacity yet school laboratories have so much potential to reduce waste. Come and hear how we at Billanook College have reduced general waste down to almost nothing and be inspired that you, too, can have an influence in your workplace.

New Session

Renewable and Non-Renewable Resources. Wind, Solar or Coal – Which should (and could!) power LABCON 2025?

James Driscoll & Anna Zonneveld, Monash University F42

This hands-on workshop explores the pros and cons of coal, wind, and solar power through real-world data, debates, and decision-making games. Aligned with the Victorian Curriculum, it helps students critically evaluate energy choices in terms of sustainability, cost, and environmental impact. With gamified activities and ready-to-use resources, it brings science to life and builds students' critical thinking and communication skills.

New Session

Science Assist, explore the new web page

Dale Carroll, LTAV National Networks Coordinator F63

Learn about ASTA's Science Assist new website. See what new features there are and how to manage your account. We will visit the site and check out how to use it. See how Science Assist can help you.

New Session

STEM approaches using Data Loggers

Stuart Lewis, Scientrific Pty Ltd T22

STEM is science where you think with your hands" Are you looking for ways of imbedding STEM activities into the Australian Curriculum? Are you looking for a way to revive and extend your existing science equipment. This workshop will use Vernier dataloggers to explore different STEM experiments. Topics will include:

- A reimagining of the classic Egg Drop experiment to include data and tie it to the Curriculum;
- Using Vernier probes with Arduino and Scratch;
- A look at how to build the Microsoft robotic hand challenge;

Repeat Session

Structures and Materials: Building bridges in the classroom, who can design the best bridge?

Stuart Lewis, Scientrific Pty Ltd T11

Have you wanted a STEM activity that can safely explore the strength of materials as well as testing the flexibility of a bridge design? In this STEM workshop participants will use an integrated STEM approach to design, make and test a bridge structure.

Participants will first conduct a scientific investigation of bridge building materials by gathering data using the Vernier Structures and Materials Tester. The results of this test will then be incorporated into the design and building of a bridge.

Bridges will be analysed using Vernier's Bridge Competition Software.

New Session

TEACH, the students well ... learning should not by accident!

Lisa Stevens & Dr Neale Jackson, Lisa J Stevens & Associates F56

Having an informed chemical risk assessment is crucial step for handling chemicals in schools. While pre-prepared and tick-and-flick risk assessments may meet legal requirements, do they provide the information you require to run a safe classroom experiment? This session builds on our Risk Assessment 101 sessions and looks at specifically how to apply that knowledge to specific experiments.

New Session

TESEP Rock and Mineral Kit and TESEP Education Programs

Peter Nisbet T3

The Teacher Earth Science Education Programme (TESEP) Rock Kit and Critical Minerals Kit for Australian Schools will be introduced to participants. The kits are complemented by a range of online resources such as 3D imagery, the stories behind the rocks in the kit, virtual thin sections, questions for students and model answers. The TESEP Plate Tectonics poster will also be introduced to enable participants to

LABCON2025 Workshop Descriptions – Alphabetical by topic

explore how this resource can be utilised in conjunction with understandings gained from the kits. Participants will be given the opportunity to investigate these resources and assess their suitability for use within the Earth Science units in the Australian Science Curriculum.

Repeat Session

The best tool for measuring pH since litmus paper! – PASCO pH sensor

Doug Bail & Megan Simkin, Cider House Tech Pty Ltd T13

A hands on introduction to the PASCO Wireless pH Sensor, demonstrating its ease of use, large range of applications, storage, and troubleshooting. The Wireless pH Sensor is a must-have for any chemistry, biology, or environmental science course, enhancing numerous activities (both in the lab and field), including acid-base titrations, investigations into household chemicals, analyses of chemical reactions, water quality studies, and more.

Repeat session from 2023

The Science of the Ridiculous

Stuart Lewis, Scientrific Pty Ltd T19

The everyday, all around us, is filled with so much wonder that we are flooded by it. We make the extraordinary normal. We forget to take time to play, to be silly, and to find the little sparks that turn it into back into the extraordinary, the ridiculous.

In this workshop we will start playing with science (if necessary, applying it to the curriculum). Fun will be had with (but potentially not limited to): People and their reactions; The mind and what it can hold; Colours; and Food.

Repeat Session

The Science of Us – Measuring humans using Vernier Data Loggers

Stuart Lewis, Scientrific Pty Ltd F62

Humans are not simple. We are a series of complex systems streamed through a conscious brain. This means that there is a lot that can be measured, from bioelectric impulses required to

move muscles to an analysis of touch. This workshop will use Vernier datalogging equipment to explore topics such as:

- EKG and heart analysis
- Muscle analysis and strength
- Wavelengths of light that fool the eye
- How to tell if a room is well ventilated
- Which feels warmer? Tactile illusions
- How much dye is in foods?

Repeat Session

There must be an easier way!

Iris Avery, Balwyn High School F57

Did you ever wonder if you could make a prac more streamlined, perhaps cheaper, modified for student engagement. This is a Q&A presentation where pracs that need say a little tweaking can be discussed and shared amongst other labbies or just myself. We will end the session with great prac ideas for STEAM club, and fun activities to ignite student enthusiasm in science.

New Session

Tips & Tricks for Techs

Leonie Leishman, Cranbourne East Secondary College F59

Cleaning, sorting, saving money, time and sanity.

Repeat Session

Triple R-Regional Representatives Rage

Deborah Sun, LTAV Regional Liaison Officer F71

Our Regional Representatives Rage is open to all current LTAV Regional Representatives, along with anyone that is interested in taking on the role. Discussions will include activities held during the past year, difficulties faced, possible solutions and any other matters of importance. All Regional Representatives are requested to bring along 18 copies of a short report to be distributed at the meeting to those present.

Annual Update

Volcanoes – What a Blast!

Peter Nisbet F64

This session explains the different types of volcanoes, where and why they are located in certain areas and what causes them to erupt. The chemistry of their gases will be discussed and how volcanoes have affected life on Earth. Victorian examples will be included. Volcanic rock samples will be examined and examples of model volcanoes that can be used in the class room demonstrated.

Repeat Session

What Rock Is That?

Peter Nisbet T17

This session uses a hands on approach to learn the main identifying features and names of the most common rocks. Participants use supplied identification keys to name supplied rock samples throughout the session. Explanation of the formation of Coal, Oil and Gas includes samples of the different types of each. Interesting minerals and fossils add variety to the session.

Repeat Session

Workplace inspections and Laboratory Audits 101

Lisa Stevens & Dr Neale Jackson,
Lisa J Stevens & Associates T16

Looking to enhance your workplace safety skills? Looking to effectively undertake a workplace inspection? Do you know the difference between a laboratory safety audit and a workplace inspection? Not sure where to start or how to document your findings? Join our workshop to learn how to effectively undertake a workplace inspection and differentiate between a laboratory safety audit and a workplace inspection. Gain practical experience conducting a laboratory safety inspection.

Repeat Session

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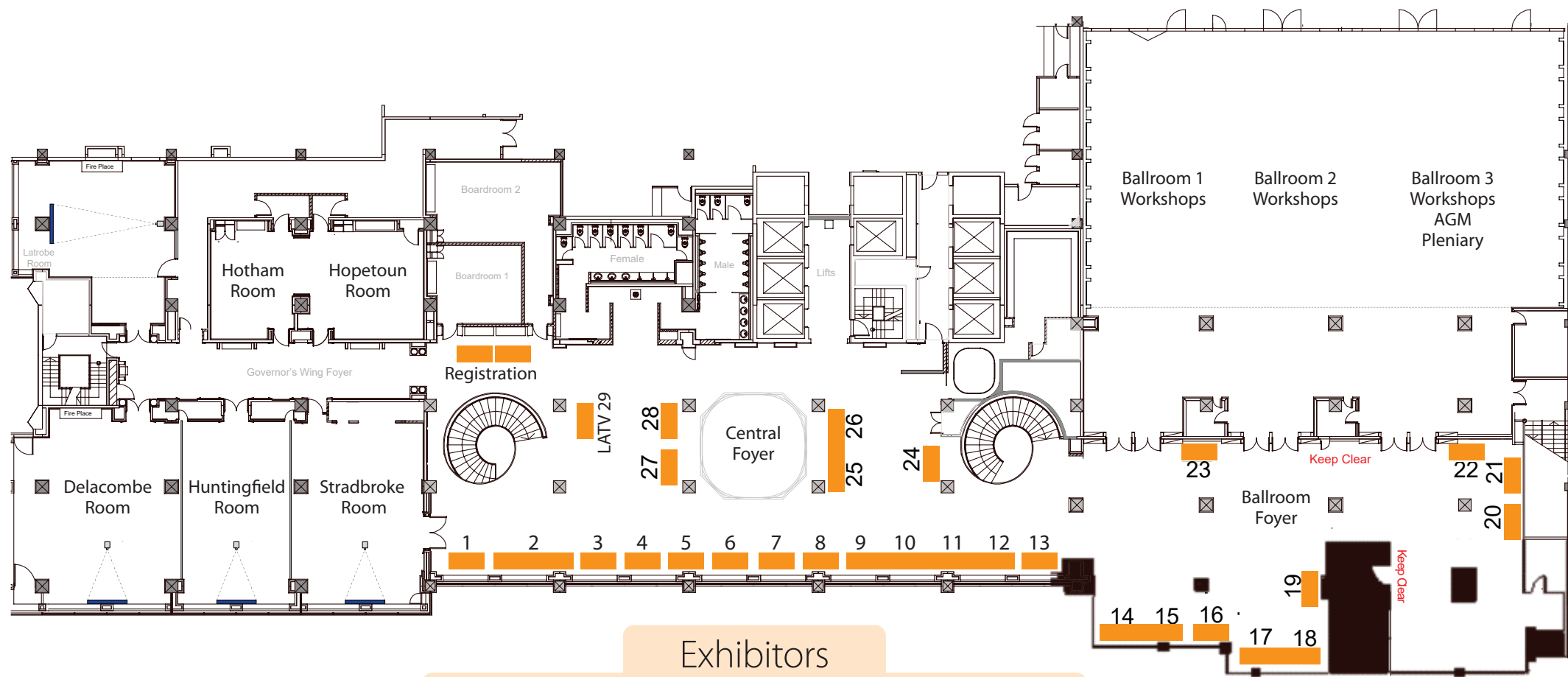


LTAV would like to take this opportunity to acknowledge and thank Conference Exhibitors – your support is greatly appreciated (Information correct at time of printing).



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LABCON2025 Exhibitors Floor Plan



Exhibitors

- | | |
|----------------------------------|--|
| 1 Principles and Practice | 17&18 OHAUS Australia |
| 2 Rowe Scientific Pty Ltd | 19 DGL Envirostore |
| 3 Australian Instrument Services | 20 Wiltronics |
| 4 Scientrific Pty Ltd | 21 ABC Training and Consulting |
| 5&6 Science Supply Australia | 22 Norlab Laboratory Furniture |
| 7 Cider House Tech | 23 Conditionaire Manufacturing Pty Ltd |
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