

"During this festive season, anyone planning to dash through the snow in a one horse open sleigh, going over the fields and laughing all the way, is advised that a Risk Assessment will be required addressing the safety of an open sleigh..."

'Christmas in 2020' by Leonie Leishman – pg. 8

Photo by Leonie Leishman

Science ASSIST NEEDS YOU

Science ASSIST needs to get at least 800 pledges from schools to become subscribers by 11 December 2020, if it is to continue next year. We are almost three-quarters of the way there, but **we still have a long way to go!**

How can you help? Ask your school to submit an Expression of Interest in subscribing to the Science ASSIST site, if they haven't already done so. Also spread the word to non-LTAV members in other schools.

Further details can be found on the 'About ASSIST' page
<https://assist.asta.edu.au/about-assist>

Sign up with the online Expression of Interest form
<https://forms.gle/vTvEqSitEUGvJYaRA>



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Geoff Gleadall

LTAV President

5th November 2020

This is the annual report for LTAV that, in normal circumstances, would be read at the AGM. However, right now, things are not exactly normal – so in an effort to keep all informed, it is also going into LABLINES.

It is stating the obvious that this has been a difficult year for most of us and, as is usual, when things get difficult, our employers just assume that we are going to go above and beyond. Again, as usual, and with no recognition – financial or otherwise.

During this year your committee has been hard at work trying to keep everything running and provide all the services that you expect to receive from us. So far, we have been able to do so, but it has not been without cost.

Several committee members are stepping down at the end of 2020 for various reasons and I would especially like to thank those members for all the work that they have done. Stacey Oldman, our SETA representative is stepping down and will be missed as a valuable

President's Report

committee member. Therese Graham has been the regional reps liaison for some years and has done a wonderful job, as has Jessica Boys as LABLINES editor until last year and assistant to the editor this year, as well as Cath Whelan from LABLINES distribution and general committee.

In general, I would also thank the whole committee who have managed to keep things running almost without a hitch all year, and that is no small achievement.

There is a motion on notice for this year that you have all seen (or will soon see) to increase the annual membership fee for being a part of LTAV. This is needed for the simple reason that the fee no longer covers the operating costs of the association and while the fee has never been increased before, the amount of the increase is modest indeed.

To all of you who have stuck with us and stayed financial, you have my thanks. For those who may read this who have not, please consider rejoining and remember that if your school does not pay it for you, you can claim it as a tax deduction (membership of a professional association).

Membership is a topic that is very important at this time. While our numbers have been growing in general and are stable this year, there are still those who take for granted the services we provide to all technicians, such as the list server,

and even though it costs more as a non-member, LABCON. This is your association, and we need our colleagues to be members. The more that there are, the more we can do to support you, and yes, I do realise that I am speaking to paid members here, but you all know those who have not joined and perhaps can remind them of the benefits.

Some of these services are often not noticed until they are needed but as a reminder, LTAV has published policies that provide guidance on staffing and job descriptions, lab design and other matters and we as a matter of course provide scholarships to members for LABCON and CONASTA (see the policies for details) and we give free membership for beginning technicians in their first year. Imagine if you will, how much harder our jobs would be without LTAV.

This president's report is perhaps a little more formal than they usually are, and I certainly miss being able to give this to you all face to face.

Those members of the committee apart from those mentioned above are re-nominating but we do have vacancies to fill and there are places for more if they will only nominate. The motion on notice is needful and I commend it to you all.

This year's AGM is going to be different, that cannot be helped, and details will be found elsewhere. Please participate if you are able.



Samantha Gunning

Lablines Editor

I am so pleased to be writing this right now, and able to say, we are out of lockdown and remote learning is no more!

What a weird year for us all. I hope that those who have gone back to work have settled back into the swing of things and are happy lab techs once again.

From the Editor

Well done to everyone for pulling through a strange year. Perhaps some of you are beaming to be back at work as per usual, while others are missing the work-from-home concept. Thank you for sharing your endeavors from lockdown and staying in touch on the listserv. How lucky we are that even though we were in isolation, we were definitely not alone. It is always comforting to know that thanks to LTAV, we have the lab tech community there for us and that communication never stops between us. Something that is so important in our roles, as the uniqueness of our job often finds us 'in isolation' even during a covid-free school year.

I know I very much missed the opportunity to see you all in person at LABCON this year. I think we all did. I feel like I haven't even been to a proper

LABCON in 2 years, as last year I was stuck home sick after day one! 😞

Let's look forward to being back and better than ever in 2021.

Speaking of which, you'll find your 2021 Membership form in the back of this edition. Best to get in early and be set for the new year, and able to receive the first (March) Lablines on time.

Congratulations on making it through 2020. I'm wishing you all a restful break and a wonderful Christmas.

See you next year!



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NOTICE

KEY DATES 20/21

LTAV AGM

| 1ST December 2020

Deadline for contributions to next
Lablines (March)

| 12th February 2021

JOIN THE LTAV COMMITTEE IN 2021!

Each year at the LTAV AGM, all committee positions fall vacant. If you would like to contribute to the LTAV community, then there is a committee position for you! Fill in your nomination form that was sent with June Lablines or, alternatively, one can be downloaded from the LTAV website. If it's a last-minute decision, put your hand up at the AGM! If you have any questions about committee positions, feel free to email any of your 2020 committee members (details on back cover page of Lablines).

THANKYOU EXITING COMMITTEE MEMBERS

LTAV Would like to thank the following committee members who are stepping down from their roles at the end of 2020:

Therese Graham – General Committee
Cath Whelan – Lablines Distribution
Stacey Oldman – SETA Representative
Jessica Boys – Past Lablines Editor & General Committee

Your efforts and contributions to keeping LTAV going are extremely appreciated and you will be dearly missed!

THANK YOU! YOU ARE AWESOME!

I would like to firstly say thank you to Katerina Nyankina who put together the Lablines article reference spreadsheet. If you haven't seen it already, Katerina has created a detailed spreadsheet of key articles in Lablines that may be useful for future reference, dating all the way back to 2011!

A huge effort on Katerina's part, that will be so useful to lab techs for years to come. Thanks Katerina! You are awesome!

Secondly, as the year draws to a close, I'd just like to thank each and every person who has made a contribution to Lablines in 2020 – far too many of you to say, but your names are in print in each edition! You are all very awesome. I can't do this without your contributions.
Thank you!

Sam Gunning, Lablines Editor

*Ever had a fellow Lab Tech do something super nice for you?
Ever seen a Lab Tech do something awesome, far beyond their call of duty?*

This is your chance to say

THANK YOU!

and to recognise those Lab Techs who you think are

AWESOME!

Please send a sentence or short paragraph to
s.gunning@braemar.vic.edu.au
to be included in the next
edition of Lablines.

BOARD

It has long been recognised that a new technician's first year in education can be very difficult. LTAV has decided to support beginning technicians by offering

FREE FIRST YEAR LTAV MEMBERSHIP

deemed to be paid by the LTAV Committee.

The following conditions apply:

- The payment is at the discretion of the committee and will apply for the course of each membership year,
- The payment is to be made only on behalf of technicians in their first year working in education.
- Members who are given this benefit are expected to continue their membership in subsequent years.
- Such members will have all the rights and obligations of ordinary members, but in accepting the payment also agree not to run for office during that same first year

Please refer all interest and enquiries to:

admin@ltav.org.au

WANTED URGENTLY

RELIEF LABORATORY TECHNICIANS

If you work part time or you know someone who has school laboratory experience and would like to earn some extra money...

Please contact Mary Jones

jones.mary.l@edumail.vic.gov.au

Your name will be added to the Laboratory Technician Relief list for the Melbourne Region. Laboratory Technicians that are available to work in Regional Victoria are also encouraged to make contact!

LTAV 2020 END OF YEAR ~ HONOUR ROLL ~

LTAV would like to acknowledge members of our association who have retired in 2020. We have tried our best to include as many people as have come to our attention. To those retiring, and any we may have missed, we wish you a fantastic, relaxing and fulfilling retirement. If you, or someone you know, are retiring, please send an email to s.gunning@braemar.vic.edu.au be included in the next LTAV Honour Roll.

Margaret Wood

Andy Ross

Judy McGiffin

Iphi Lawrence

Linda Pegler

Ritva Fazio

REGIONAL REP VACANCIES

The following regional representative positions are currently vacant:

Regional Liaison Officer –
Country regions

Geelong Region Representative

Mornington Region Representative

If you are interested in filling any of these positions, please forward your interest to LTAV's Regional Liaison Officer Deborah Sun at sun.d@wcc.vic.edu.au

Christmas in 2020...

Leonie Leishman, Cranbourne East Secondary College

A Message Re: Health, Safety & Equality...

“During this festive season, anyone planning to dash through the snow in a one-horse open sleigh, going over the fields and laughing all the way, is advised that a Risk Assessment will be required addressing the safety of an open sleigh.

This assessment must also consider whether it is appropriate to use only one horse for such a venture, particularly where there are multiple passengers. I would also advise against dashing and would recommend a maximum speed of 10 MPH unless seatbelts are fitted.

Please note that permission must also be obtained in writing from landowners before their fields may be entered.

To avoid offending those not participating in celebrations, we would request that laughter is moderate only and not loud enough to be considered a noise nuisance.

Benches, stools and orthopaedic chairs are now available for collection by anyone working as shepherds during this festive season and are planning or required to watch their flocks at night. While provision has also been made for remote monitoring of flocks by CCTV cameras from a centrally heated shepherd observation hut, all users of this facility are reminded that an emergency response plan must be submitted to account for known risks to the flocks. This must be briefed to all shepherds and copies of signatures recorded.

The angel of the Lord is additionally reminded that, prior to shining his/her glory all around, he/she must confirm that all shepherds are wearing appropriate Personal Protective Equipment to account for the harmful effects of UVA, UVB and the overwhelming effects of Glory.

Following last years’ well-publicised case, everyone is advised that Equal Opportunities legislation prohibits any comment with regard to the redness of any part of Mr R Reindeer. Further to this, exclusion of Mr R Reindeer from reindeer games will be considered discriminatory and disciplinary action will be taken against those found guilty of this offence.

While it is acknowledged that gift bearing is a common practice in various parts of the world, everyone is reminded that the bearing of gifts is subject to our bribery

policy and all gifts must be registered. This applies regardless of the individual.

It is particularly noted that direct gifts of gold are specifically precluded, while caution is advised regarding other common gifts such as aromatic resins that may evoke allergic reactions, such as frankincense, myrrh and other well-known High Street body & bath oils.

Finally, in the recent instance of an infant found tucked up in a manger without a crib for a bed, Social Services have been advised and will be arriving shortly.”

THE CHRISTMAS ATOM

Santa’s pants were just too tight,
His expanding girth had lost the fight.
The elves had kept him well locked up,
While CoVID raged he liked to sup!
Too many milk and cookies went down,
Because he couldn’t go to town.
This posed a problem for the sleigh, It had a weight limit for the day.
Christmas was coming way too fast, The elves had to look to the past.
The Christmas atom was dusted down, It would have to go out and surf in town
The Christmas atom spun out of control, Around the world it went like a troll.
Searching for the energy quotient, Collecting all the Christmas emotion.
To use this energy to power the sleigh, So Santa would make it on Christmas Day.



Christmas ATOM - wire stolen from the art department, packet of glitter Christmas balls, tied to each shell, four shells with fishing swivels between each shell so they move independently.





PRINCIPLES and PRACTICE

During lockdown in the workshop, I've had time to rebuild a small quantity of 'near new' and 'warranty replacement' microscopes back to 'as new' condition. So if you need to add just a couple more to your class sets, maybe I can help.

Binocular Microscopes \$300.00+gst*

(may be labelled either 'Delux' or 'WLMSM03D')

3 AC powered & 4 DC powered (with AC Adapter) AVAILABLE

SPECIFICATIONS:

- LED illumination with dimmer control.
- Binocular 45° inclined head
- WF10x eyepieces
- Four achromatic objectives; 4x 10x 40x and 100x (Oil)
- Coaxial coarse & fine focus controls with tension adjustment.
- Abbe condenser with iris diaphragm
- Mechanical 130x120mm stage with safety stop.
- Choose AC powered OR DC powered with AC Adapter



Stereo Microscope ST-30 \$280.00+gst*

(may be labelled either 'Sublime' or 'WLST05S')

3 AC powered & 1 DC powered (with AC Adapter) available

SPECIFICATIONS:

- LED reflected & transmitted illumination
- 45° inclined Binocular Head with WF10x eyepieces
- 2 magnifications, 20x and 40x
- Frosted glass cover stage
- Choose AC powered OR DC powered with AC Adapter



Monocular Microscope XSP-116NL \$55.00+gst*

2 units available

SPECIFICATIONS:

- Illumination: Incandescent Lamp, 220V/20W
- Eyepiece: WF10X
- Three Objectives: 4X, 10X, 40X(S)
- Stage: Plain stage with safety stop and slide clips, size: 90mm X 90mm
- Focusing: Single focusing adjustment
- Condenser: Single lens with disc diaphragm



Monocular Microscope BP-20 LED model \$120.00+gst*, Incandescent model \$95.00+gst*

4 LED (with dimmer & AC adapter) & 2 Incandescent models available

SPECIFICATIONS:

- LED with dimmer control and inbuilt rechargeable batteries
OR 230V/20W incandescent bulb
- Eyepiece: WF10X-18mm
- Three achromatic objectives; 4X/NA0.10, 10X/NA0.25, 40X/NA0.65
- Coaxial coarse & fine focus controls
- Condenser: Single lens with disc diaphragm



All microscopes come with a 1 year warranty

(*prices do not include delivery)

Please contact me to find out more details.

Email: harvey@principlespractice.com.au Phone: 0459 768 392

A Week in the Life of a Lab Tech...

Pam Arnold, Yarra Valley Grammar

“What did you do in second lockdown when we weren’t allowed at work?”

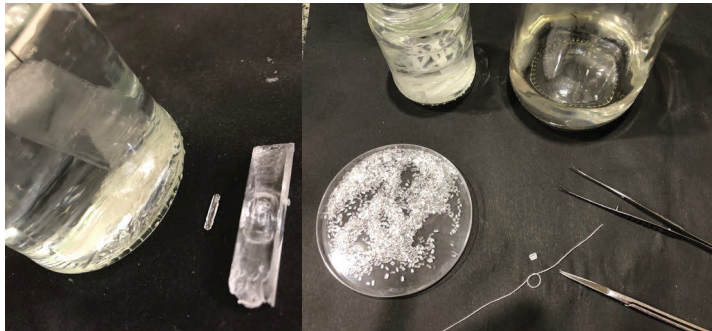
I was asked this question recently by a committee member and thought I’d share my response with you all in this crazy year of Covid when there has been little else to report in Lab Tech land especially here in Victoria.

During the first lockdown period Eun and I worked mainly on site which was a little eerie, often being the only occupants of the Maths/Science building. We created a few videos that science teachers had requested. This was a whole new experience for us and we had fun filming, learning new skills along the way especially in video-editing.

We had a few days when we were allowed to work from home and we used this time to catch up on admin tasks such as SDS & Chemical Register updates, Standard Operating Procedure updates and laminating some common prac sheets to save on future photocopying time and costs.

When we were faced with a second period of lockdown and to work full time from home, Eun and I had to put on our thinking caps as to what we could achieve during this time.

Science Week was not far away so our first task was to create a few ‘at home’ science experiment videos to inspire the students to organise their own attempts in their kitchen or garden. Our videos included crystal growing, DNA extraction from strawberries, soy sauce diver, elephant’s toothpaste and ‘Eggsperiments from home’ – a series of experiments using eggs!



Our head of science took on the watermelon/elastic band Science Week video challenge with his family in his backyard and used the activity to help celebrate a significant family birthday. What better way to celebrate an ISO birthday than to explode a watermelon!



...In Isolation!

Winner – RACI Outstanding Lab Tech of the Year 2020

After Science week was over, we busied ourselves with a few more administration duties and created a folder of online resources for our teachers to access. This included compiling a document to provide easy access to links to all the valuable videos created and shared on Listserv by other lab techs which we are very grateful for – Thank you to you all!

We signed up to the free webinars offered by TESEP and for six weeks our Thursday afternoons were spent learning about The Rock Cycle, Rocks & Minerals thanks to Greg McNamara generously sharing his knowledge. We also used our STAV school membership to enrol in the online conference for teachers & lab techs. The sessions were both synchronous (some recorded for later access) and asynchronous which provided lots of flexibility in opportunities to listen to some engaging speakers. There are definitely benefits to this online format in being able to wear PJs & Ugg boots, no parking or transport worries and a possibility to make sourdough bread at the same time (another new skill acquired during lockdown!). Of course, the downside to this format is lack of networking chances with colleagues and exhibitors.



To give us a break from technology and keep our right-side brains stimulated we undertook a few creative challenges. Eun created a periodic table using plastic boxes purchased from Daiso to display the samples of elements that we were lucky to receive as a gift last year from Dept. of Chemistry @ Monash Uni to celebrate the International Year of the Periodic Table. Eun also created a Coronavirus model which will be displayed in another display cabinet with an immunology/Covid theme



I set to work on my sewing machine and made around 50 drawstring bags that now house our power cords for electrical appliances. It has always been a gripe of mine when power cords are returned in a tangled mess or they are wound so tightly around the appliance that the cords get broken, so hopefully these little bags may help to alleviate these problems. As you all know these are the types of jobs that we are always too time poor for – lots of ideas but no time to execute, so it has been great to have some unexpected time to achieve a few of these tasks.



It certainly has been a surreal, interesting and challenging year for us all and one we won't forget. I hope you have all survived well and learnt a few new skills along the way - maybe a few others can share their experiences? Let's hope 2021 will be a little more like 'normal' or a 'new normal' but until then I wish you all a relaxing break and an opportunity to catch up with family and friends.



Lab Tech

LTAV Committee

Cath Whelan – Lablines Distribution Officer

The School/Institution which you currently service:
Ivanhoe Grammar School (The Ridgeway Campus)

Years at current workplace:
2.5

Years as a lab tech:
26

What qualifications/degrees do you have?
Associate Diploma of Applied Science (Laboratory Technology), Swinburne,
Diploma of Food Science and Technology, William Angliss

Is there a particular discipline of science that you take interest in or have expertise in?
I'm interested in Biology however I enjoy knowing how and why things work so I enjoy all areas of science.

How did you come to be a lab tech?
I did one year of a Science Degree then decided to leave the course and found work as a Lab Technician in a Quality Assurance Lab testing vitamin tablets.

What did you do before you were a lab tech?
Studied at Uni.

What's your favourite thing about being a lab tech?
The variety involved in our work and being of a practical nature. I enjoy working with my lab team consisting of Jenny and Maria, the teachers and the students. I also really appreciate that my work is very family friendly.

If you could give your younger, brand-new-just-starting-out lab tech self some advice, what would it be?
When requested to do a practical make sure that you are given plenty of notice and if you do not have time you can suggest that the practical be moved to another time. Do not worry about asking questions, most teachers are more than willing to help. Join the LTAV and go to Regional meetings and get to know other Lab Technicians.

If you weren't a lab tech right now, what would you be doing
Working in the food industry.

What does 'life outside the lab' look like for you? E.g. Family, hobbies, pets!
Outside of the daily grind I enjoy spending time with my husband, three girls and my son. I enjoy walking and bike riding and spending time down the beach with family and friends.



Sam Gunning – Lablines Editor

The School/Institution which you currently service:
Braemar College

Years at current workplace:
2.5

Years as a lab tech:
2.5

What qualifications/degrees do you have?
A Bachelor of Animal & Veterinary Biosciences from La Trobe University

Is there a particular discipline of science that you take interest in or have expertise in?
My loves are definitely biology and animal science!

How did you come to be a lab tech?
When I was finishing up at uni, I was just on the lookout for any science-related job I could find. Doing an undergrad science degree doesn't always open you up for as many opportunities as people might think. The science workforce is rather competitive, especially for those without postgrad study. I saw the position advertised for the school lab tech position and thought, 'hey, I could do that!' I applied, interviewed and viola! I was really thankful for the opportunity I was given, especially being so young and with little experience outside uni.

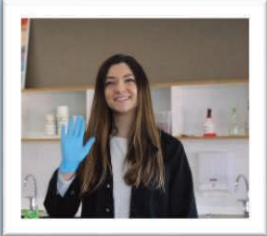
What did you do before you were a lab tech?
While I was in uni, I worked various retail jobs as well as a couple of years in a pathology lab, which I really enjoyed.

What's your favourite thing about being a lab tech?
I'm a very 'task-based' person, so I love having something to get my hands on that needs to be done in a practical sense. Alongside this, I love seeing the students get excited when they line up outside the science lab realising they have a prac that day! Then seeing how much they enjoy getting to do something hands-on and fun all while learning some great science.

If you could give your younger, brand-new-just-starting-out lab tech self some advice, what would it be?
You'll learn, it's okay! You won't be so nervous about it all in a few months' time. Also, take notes on each prac you do! You'll be asking yourself at that time next year, 'now what was that trick I used to make it work, again??'

If you weren't a lab tech right now, what would you be doing?
I'd probably be studying postgrad veterinary medicine. That was always the goal for after my undergraduate degree as I always wanted to be a vet. But when I finished uni I was just about to get married and move out of home – so finding a job was the most practical option at the time. I still hope to go back and do postgrad... someday!

What does 'life outside the lab' look like for you? E.g. Family, hobbies, pets!
I live with my husband and our two dogs, Yuki the Samoyed and Bruce the English Bulldog. They are our children for now! We love spending weekends walking around the Maribyrnong river with them or going on little road trips. I also run a small business on Etsy creating resin keychains & pet tags, so that keeps me busy outside of work! (@floresiadesigns on Instagram!)



Don't mind the cheesy waving, I took this screen grab from a prac video I made during remote learning! How much fun did we all have being TV hosts for a little while there?!

Get-to-Know-Me!

LTAV Members

Benazir Noorullah – The Grange P-12 College

Years at current workplace:

10+

Years as a lab tech:

10+

What qualifications/degrees do you have?

Ph.D. Biotechnology, Anna University, Chennai, India.

Is there a particular discipline of science that you take interest in or have expertise in?

Molecular Biology, Tissue culture, Microbiology. This lab tech job has instilled a massive love for physics.

How did you come to be a lab tech?

It was hard to find work as a University academic in Australia or as a research officer/scientist, pushing me to accept the available job.

What did you do before you were a lab tech?

I was a lecturer teaching Masters level coursework in a University in India.

What's your favourite thing about being a lab tech?

Watching the young minds amazed at science experiments and giving career advice, sharing my industry experiences to senior kids as a side kick after my demonstrations.

If you could give your younger, brand-new-just-starting-out lab tech self some advice, what would it be?

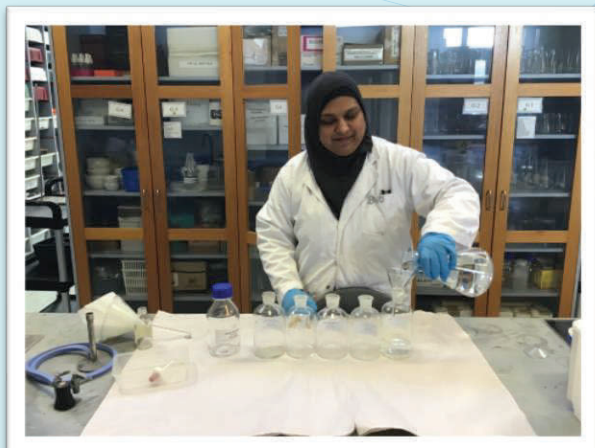
You got to be thorough in all scientific concepts, if it is outside your expertise be willing to learn.

If you weren't a lab tech right now, what would you be doing?

Probably a faculty/academic at Universities with plenty of research grants focussing on cancer or pathogenesis.

What does 'life outside the lab' look like for you? E.g. Family, hobbies, pets!

Gardening is my green therapy for mind and the body. A new bud, leaf or a flower will brighten my day any day.



Anke Grabosch-Meehan – Kardinia International College

Years at current workplace:

1.5 years

Years as a lab tech:

Worked in different labs for all my working life (24 years)

What qualifications/degrees do you have?

Biological Technical Assistant (BTA) at Rheinische Academy Cologne, Germany

Is there a particular discipline of science that you take interest in or have expertise in?

Biology, I worked for many years in Molecular Biology

How did you come to be a lab tech?

I studied in Cologne, Germany to become a BTA and worked in laboratories ever since.

What did you do before you were a lab tech?

I always worked in labs as technician and research assistant. My first job was in medical diagnostic, second in forensic science in the German police force, then in Research at Peter Mac and Melbourne Uni, at Deakin as Tech Officer and eventually I ended up as lab tech at my school.

What's your favourite thing about being a lab tech?

I love the multitasking, networking and diversity. You basically cover a lot of different roles in this position.

If you could give your younger, brand-new-just-starting-out lab tech self some advice, what would it be?

Do not be afraid of trying new things, new jobs out...you can only gain not lose!

If you weren't a lab tech right now, what would you be doing?

I have no idea, I am still trying to figure it out.

What does 'life outside the lab' look like for you? E.g. Family, hobbies, pets!

Family including 3 kids, a husband a little cavoodle called Murphy, cooking, sports (running and weights), traveling



Bringing the Lab Home: Garlic Root Tip Mitosis

Ros Clark, Melbourne High School

So, you're sent home from School with a days' notice for who knows how long. What do you grab and what do you plan to do working remotely when you are a Lab Technician who thrives on practical, hands-on activities? Among other things, I grabbed a microscope and some stains with the plan to try out some biology pracs I have seen on the List serve, but never been asked to prepare.

First up was **Garlic Root Tip Mitosis**. Our school uses pre-prepared slides for students to observe cells, but I thought I'd give this a go with real garlic given that the garlic I had in the cupboard had sprouted. I checked some suggested methods and then wondered what alternate chemicals I could use that were at home. First step was to check our shed where I found Diggers Brick Cleaner, aka Hydrochloric Acid. I sliced the ends off the sprouted garlic roots, dipped them in diluted Brick Cleaner for 10 minutes and then stained with Methylene Blue. I was very excited when my first preparation showed promise and I saw several cells in obvious states of cell division. It was painstaking to find them though, as they were very rare, and I doubted my students would have the same patience as me if they were doing this at school.

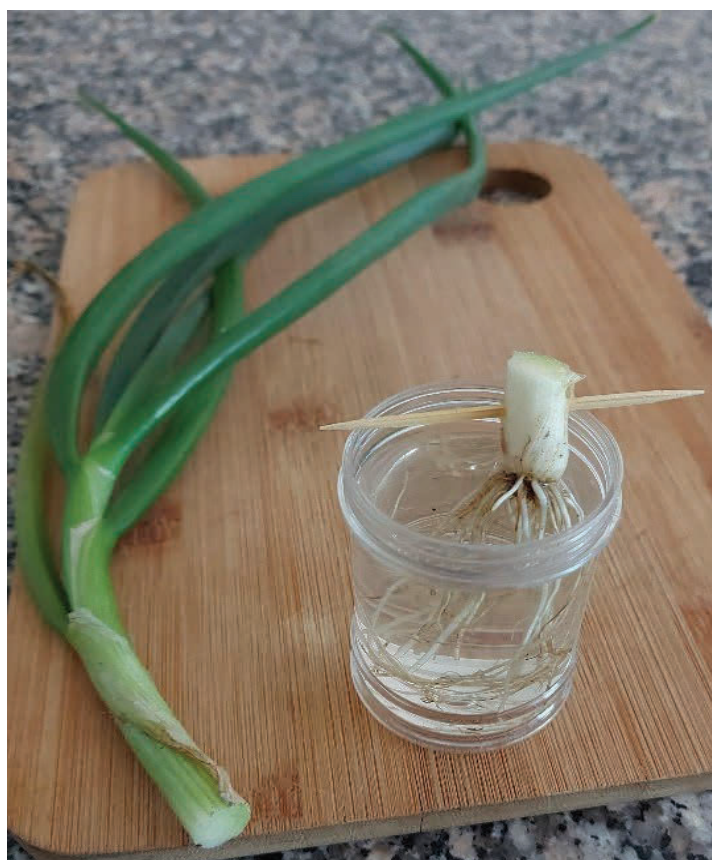


Figure 1 Growing Spring Onion Roots

I decided to try it again and this time the garlic would not grow. Anyone else had that issue?? Coles obviously sometimes has untreated Australian garlic and other times treated so it will not grow. There was no option to look around for an organic garlic supply when I was in

lock-down. I had to use the garlic to make creamy garlic prawns instead.

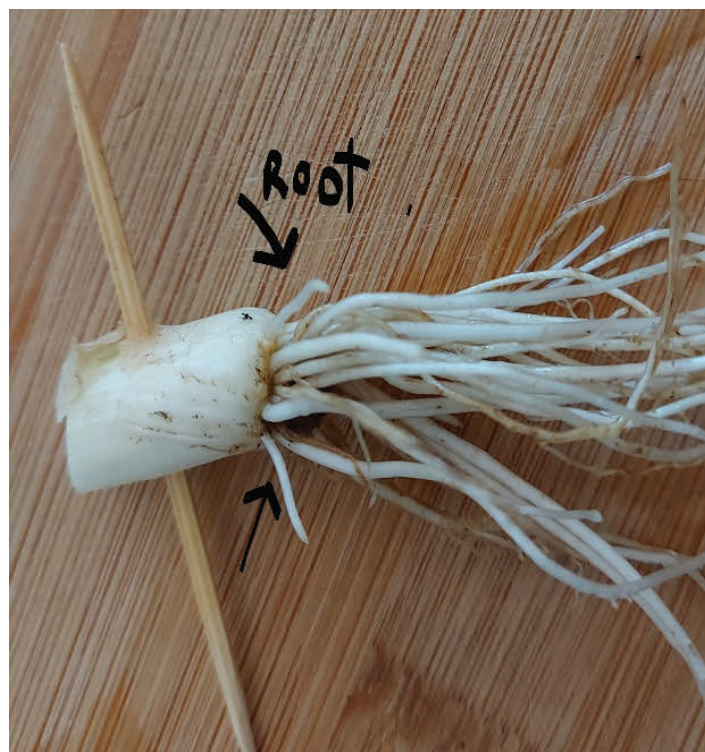


Figure 2 Harvesting Spring Onion Root Tips

I looked around my house wondering what else I could try that might be more reliable and give better results. I thought of daffodil bulbs, as I had used the leaves to observe great stomata but didn't really want to sacrifice my garden.

Then I thought of Spring Onions. I cut the ends of some roots from the spring onions in my fridge, but the harvesting of spring onions must be a bit brutal as all the root tips were damaged. In the end I trimmed off the leaves, stuck in a toothpick and tried growing more roots over a glass of water.

After a few days I cut the very small roots that had grown near the bulb, fixed them with diluted brick cleaner and stained with Aceto-orcein.

Well, I was amazed. My family thought I was crazy. They don't get my excitement about Biology, but there were so many cells in various stages of cell division!! One in just about every field I looked at and so obvious.

I took some photos using my phone down the top of the microscope and some with the microscope camera. This will certainly be a prac. I will be suggesting for Biology next year, all being well.

As they say, you can take the Biologist out of the Lab, but you can't take the Lab out of the Biologist.

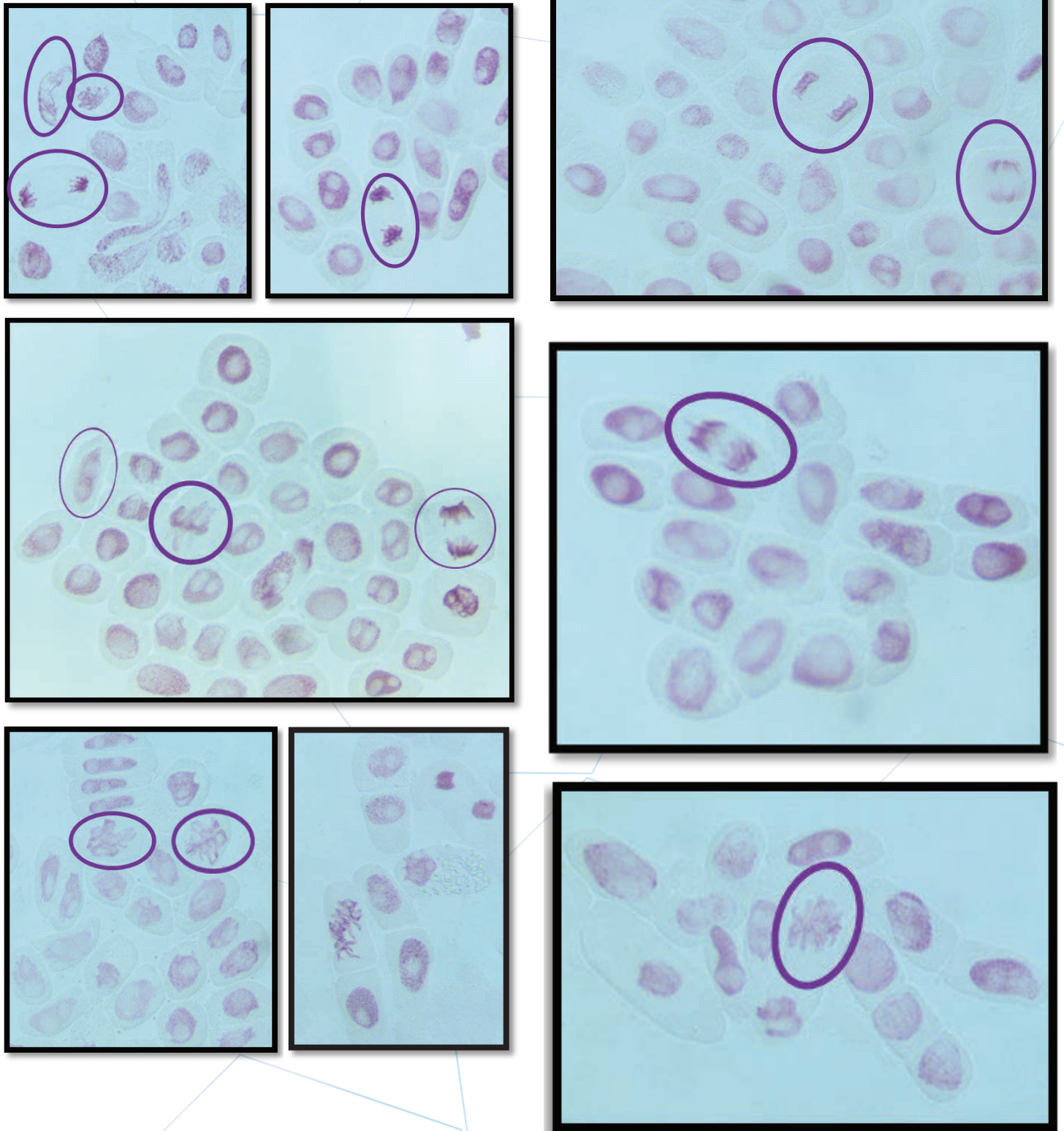


Figure 3 Spring Onion Root Tips stained with Aceto Orcein, 100x

Welcome to the Wonderful World of Waste and the School Laboratory

Michael Pola, Envirostore Chemical Consulting

Part XI

mike@envirostore.com.au

This edition will look back at the soon to be over 2020 and what has occurred in the chemical waste world at schools. Despite the prevails of the coronavirus, the waste industry did not slow down too much (we are considered an essential industry) and we did many collections from your school laboratories this year. I usually don't keep count of how many schools we do collections from but there did not seem to be a noticeable drop off in school collections. In November we did nine schools in north eastern Victoria from Yarrowonga to Mt Beauty. Two schools in Albury are still waiting for the border to reopen and apparently this is happening very soon and we will be able to do their collections in a week or so. Any Victorian school that wants a collection this year is encouraged to get this organised no later than December the 11th, as we just run out of time after that. There's nothing wrong with a January collection when things have settled down.

What have we observed in the school lab this year during our travels? The biggest thing is the electronic EPA certificates. Many of you have registered the school on the EPA portal and attempted to prepare a certificate. It is the responsibility of the school as a chemical disposer to register. Industry is in the same boat. Once you have registered, EPA will issue a username (usually your email) and a password which you can change when you first log in. When you have arranged for a collection you can login and prepare the certificate and I will give you the details of what to actually enter below.

The main problem encountered with the certificate is that you must have Microsoft Internet Explorer as the internet browser. It will not work on ANY OTHER BROWSER. This means a windows computer not an Apple or other type. No Safari, Chrome, Edge or Firefox. Just IE. Microsoft are ceasing support for IE very soon we hear so not sure what EPA will do. They are incorporating a new Act and associated Regulations mid 2021 (delayed by 12 months) and we are fairly sure the browser requirement for their electronic waste transport certificates will be inclusive of any browser and platform, and able to be done on hand held devices – what progress!

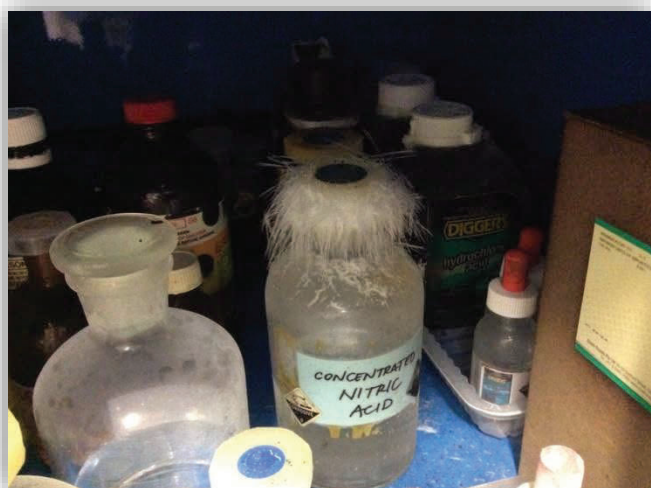
Assuming you are ready to prepare a waste transport certificate, the first question you will be required to answer is the waste code and category. Use category T-miscellaneous and then code 100 for chemicals from laboratories, so T100. You should then be taken to a blank certificate with various boxes requiring an entry. The boxes ringed in pink are mandatory, the blue ones not. Most boxes have drop down lists (the arrow on the right side); your schools name and contact (you) and contacts phone number will come up as you click on each of the boxes. The selected waste code will be there, and you need to select a few things: class number - chose either class 3 flammables or class 6 toxics. The respective UN numbers are 1993 or 2810. These are the most common dangerous goods classes for school laboratory chemicals. Packing group either II or III. Classification choice is not classified (this is an EPA classification for solid wastes that won't apply to you). The description of the wastes is a pink box with no drop down so you can type in anything here, but we suggest 'school laboratory chemicals'. Don't worry about contaminants, and there is no need to do a separate certificate for every chemical of group of chemicals – the T100 code is good for multi-class chemicals as commonly encountered in the laboratory. You will be asked to choose a disposal site from a drop down list, so scroll down till you find your preferred disposal company, the same for the transporter, in our case its one and the same. You will not be able to select a waste company or transporter that is not licensed to receive T100 or cannot transport these. This completes Part A of the certificate and you should push the submit button and hopefully it will go through and issue an EPA transport certificate number.



We have unfortunately seen a lot of instances where a yellow box pops up asking you to add something to something before the certificate is accepted. When you do as bidden the certificate details disappear and you have to start all over again. I don't know why this happens but when it does, I suggest that this is now a good chance to see if you can recall all the certificate details as you do the whole thing again...and keep breathing deeply! Once you have part A down, you can now do Part B which is the transporter detail and you will need the rego of the vehicle doing the collection. We can supply this at the time of collection or prior if you are able to do the certificate before we get there. Once part B is submitted you will be asked to View and Print which you do and print out a copy for the driver and yourself. No worries? Of course not. If for some reason however you are unable to follow this "simple" procedure such as no internet access, not registered, computers playing up, dog ate the keyboard etc., we can do a certificate on your behalf as an accredited agent, but please do this as a last resort. Feel free to call about any aspect of the certificate process as many schools only do one disposal per year and it seems to be a lot of mucking about for one disposal. By all means, give it a try though. We are not sure what the EPA's attitude to accredited agents for one-off collections is going to be under the new Act, as these are for more than one collection of the same waste over a day. Other observations from our various adventures in school labs worth noting include: we collected only one white phosphorous this year for disposal and it is becoming increasing rare in school labs. Last year I recall two or three. We need to work on potassium next. The ventilation of your class 3 dg cabinets is still not totally incorporated and I have seen many with no ventilation at all. The exhaust should be outside and does not require a fan. You do not need to ventilate any of the other dg cabinets either and there is no requirement for distance separation of dg cabinets. These are already segregation devices. The class 8 cabinet needs physical separation of acids and alkalis if you have them in the same cabinet. Otherwise it's a separate cabinet for each. Put the elemental mercury in the alkali cabinet, also the iodine and sodium sulphide if you have any. Don't forget if you want us to take a quick squizz at your lab when we are there, just ask. Overall the level of compliance and awareness of good lab management is rising and I haven't had one question about what can be turfed down the sink for a long time. Also we now have a radiation meter so can check you radioactive rocks and sources for soundness of storage and shielding – no charge.

We wish everyone a safe and peaceful Christmas and festive season and will see you all at Labcon and STAV next year and don't forget: THE WASTE NEVER STOPS.

“Don’t worry, we’ve seen worse!”



The envirostore.com.au website has a special “For Schools” section where you will find some handy downloadable materials addressing spills, banned chemicals, the GHS and more and you can enter details of your chemical waste online for a disposal quote. Michael Pola’s LABCON and STAV presentations from 2019 are also available.

Don’t forget, we can supply compliant containers for consolidating your liquid chemical wastes, and we pack all the chemicals for disposal ourselves and we will take everything. We are happy to have a look at your lab, prep room and store and offer suggestions on compliance and good lab practices – this is a free service for our customers.

We also supply economical and effective spill kits and free chemical advice.

Contact us on (03) 9308 6636

Mike: 0419 566 129

Email: sales@envirostore.com.au

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Campbellfield VIC 3061

www.envirostore.com.au

envirostore chemical
consulting pty ltd



Contact us for a disposal quote, download the manifest form or complete online on our website. We do collections anywhere in Victoria.

Serrata Science Range Now Available Through MTA

We are delighted to welcome Serrata, one of Australia's largest supplier of specialised science & education equipment, into the MTA family. Since 1969 the Scrimgeour family have established Serrata as the premier science equipment supplier across Australasia supplying the highest quality products to primary and high schools.

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And if you know the Serrata product code, please add SER to the code to find the product on our MTA site. For example 1002034 will become **SER1002034**.





Editor's Mailbox

This is something a little different & fun. I received an email from an LTAV member who wishes to remain anonymous, but who wanted to share this for a laugh for the rest of us. If anyone else might have any funny stories they'd like to submit, simply email to s.gunning@braemar.vic.edu.au – feel free to use an alternative or friend/family member's email address if you want to remain REALLY secretive! 😊

Sender: 'Serial Dozer'

Hi Samantha,

I have a small, funny situation from lockdown - *I would prefer it was retold anonymously; something along the lines of "which Lab Tech has the record for falling asleep during several PD's while working from home during LOCKDOWN..."*

Backstory:

- During lockdown #1, I logged into a "self-care during lockdown" session for ED staff. I heard the intro/welcome remarks and the goodbyes and thank-yous.
- I attended the ZOOM PD session with University of Queensland, *Aseptic Techniques & Microbiology*, and was quite fascinated by the whole process – well, the first 20 mins and hearing the presenter say goodbye to everyone, at least.
- Unfortunately, I also dozed off during a staff PLC ZOOM meeting (by then I knew to turn off my camera).

All I can put it down to is that I went to a hypnotist last year to help with a health issue, and ever since, whenever anyone is talking softly/calmly while I am sitting down...off I go! That includes TV shows, husband talking to me when he is driving, conversations with my mother...the list goes on. I think I need to go back and have the switch turned off...!

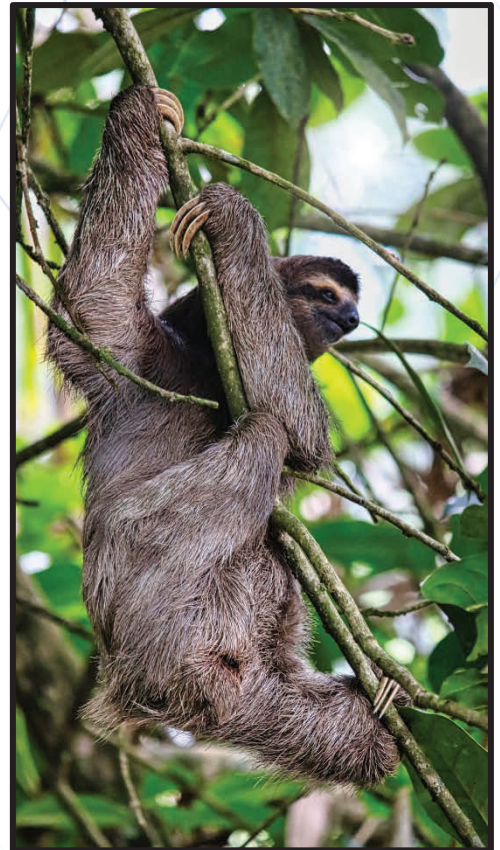


Image by Bennett on unsplash.com

Got something to deposit in the Editor's Mailbox?
A funny story or helpful tip of your own?

It will be gladly received at
s.gunning@braemar.vic.edu.au

A helpful tip from our Vice President Mary Jones, on how to save a prac when you are short on equipment!

Sam,

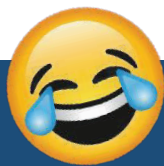
Hi. I was problem solving as we all do. I was bit under the pump last week and coined the phrase gotta do magic now and pull a rabbit out of a hat to fix this. Hence, I am now calling it Magic Rabbits here. My magic rabbit of the day today is I had to figure a way to make a sound experiment go ahead, when we did not have any ticking watches here. Even if music or another area could help out, I doubt they have 8 of them. My favourite shops to visit for things of this nature are not open. I decided to try YouTube and found a video. This way the students can use their laptop set to mimic having a real ticking watch. The teacher will decide on the volume to make them consistent when doing the activity.

I thought to share it, in case someone else needed a quick fix or tip for others.

YouTube: [30 Minutes of Ticking Clock Audio & Video](https://www.youtube.com/watch?v=v4enYB8lwwE) - <https://www.youtube.com/watch?v=v4enYB8lwwE>

☐ Fact OR ☐ Fiction

ANSWERS



Maybe a little corny... but no one will appreciate a little science humour like a lab tech will!

A: It went OK!

Brain Break



WORD SEARCH: CHEMISTRY

Can you find them all?
The words run in just about EVERY direction!

J	L	F	M	O	Y	C	T	N	K	O	P	C	A	D	F	G	Y	J	K
J	C	I	B	G	J	L	M	M	D	Q	Z	F	A	P	L	N	F	H	Y
G	E	H	N	Z	V	B	F	R	O	D	H	G	N	U	S	H	E	L	L
F	D	T	R	S	A	C	I	D	X	L	N	M	H	Q	Z	P	X	P	G
S	H	L	H	O	T	G	B	F	B	C	E	N	Y	A	W	O	C	L	A
H	B	J	N	X	M	E	C	R	N	V	Z	X	D	Z	A	I	O	M	Y
Y	F	G	B	Z	H	A	A	D	M	B	J	Q	R	W	D	U	M	I	O
B	V	S	F	I	S	O	T	O	P	E	U	W	O	S	L	Y	P	J	K
S	S	N	D	F	N	D	A	O	Y	N	T	E	U	X	K	T	O	B	D
A	M	A	S	S	B	S	L	B	G	H	R	R	S	E	M	R	U	Y	R
D	N	U	S	S	D	G	Y	N	L	R	E	E	B	D	J	E	N	G	V
G	H	H	I	X	F	N	S	G	H	R	A	Y	A	C	Y	W	D	F	F
J	T	F	O	O	Q	H	T	F	B	D	F	P	D	C	H	W	Z	V	H
L	B	O	N	D	X	T	N	D	A	W	T	U	H	R	T	R	X	D	J
R	Y	S	I	E	T	T	S	Q	S	D	N	I	A	Y	F	I	M	C	K
Q	H	A	O	R	Y	R	F	Y	E	C	E	O	S	G	D	T	O	V	A
T	N	C	F	F	H	E	Y	T	X	V	M	O	D	B	S	G	T	N	E
D	S	T	S	D	B	N	O	R	T	C	E	L	E	N	A	B	A	F	V
Y	D	W	V	B	R	I	Q	A	Z	X	L	C	R	T	H	N	V	V	S
H	G	L	H	T	E	R	T	Y	U	N	E	A	F	Z	X	H	U	J	L

ACID
BASE
COMPOUND
ELEMENT
ISOTOPE
REACTION

ANHYDROUS
BOND
CHROMATOGRAPHY
INERT
MASS
REDOX

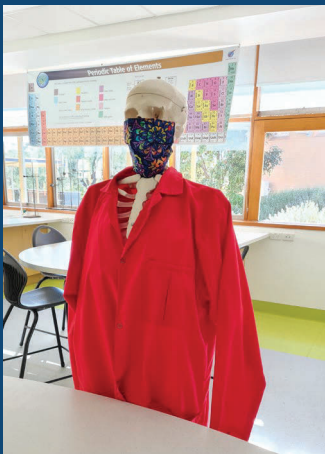
ATOM
CATALYST
ELECTRON
ION
MOLE
SHELL

Spotted in the List



The LTAV list-serv is provided to all LTAV members and is an amazing resource for laboratory technicians working in educational institutions. Whether you have a question that needs to be answered, or just need a laugh every now and then, sign up to the list-serv forum and meet a bunch of fun, friendly and helpful lab techs, just like yourself! Go to www.ltav.org.au and click 'Join the LTAV List'.

From: Shane Critchley
Subject: Never Lonely

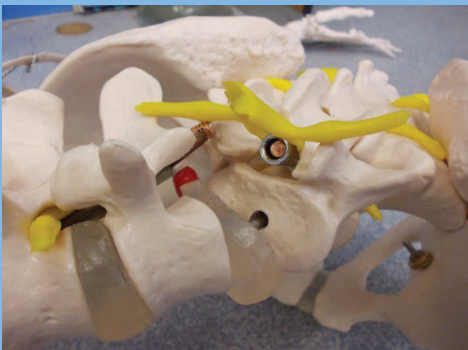


From: Loretta Coverdale
Subject: Happy Friday



In the lead up to Grand Final, it was all about our friends in the lab - the skeletons!

From: Patrick Hull
Subject: Spinal Fracture



If I cannot fix him, he may never walk again!
This will teach me not to bring my own toys into work.

From: Domenic Rosa
Subject: Taking a 'Break'



From: Sheree Hubbard
Subject: Hard at Work



He may still have a spinal fracture but at least he is well hung! Home-made stand using a stuffed swivel chair, a gazebo pole, a tent peg and, yes, gaffer tape.

From: Leonie Leishman
Subject: Lab Friends



Left - Meet 'Napoleon Boney Parts'. He's all alone and frightened in the lab at the moment! Right - my van de Graaf - Ducky, no more explanation needed.

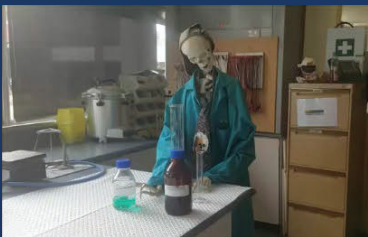


From: Donna Muldoon
Subject: Skelly



This is our Skelly in Remote learning 1.0, he and I were super busy last lockdown. In 2.0 he has been resting!

From: Dale Green
Subject: Happy Friday



From: Christine Giarrusso
Subject: RE: Our skeleton ready for the Grand Final. Go Cats!!!

Dawn, I love this idea but do NOT like your execution.

I feel unprepared for this challenge, this is the best I can do.

Yellow & Black!!

From: Shane Critchley
Subject: RE: Our skeleton ready for the Grand Final. Go Cats!!!

Love it, although every time I look across at our skeleton, it always reminds me of a Collingwood supporter awaiting a flag again..... broken hearted.....



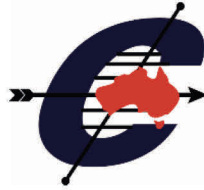
From: Dawn Read
Subject: Our skeleton ready for the Grand Final. Go Cats!!!



From: Peter Eames
Subject: RE: Our skeleton ready for the Grand Final. Go Cats!!!

Cat skeleton approves.





Conditionaire is now offering more than just Fume Cupboard/Fume Hood/Ductless Fume Cupboard solutions for your School/Company/Research Facility/University etc. We are now in association with two other companies: Validair Sciences and Biosafety. For peace of mind, we are a Nata Accredited Company, so we get all our staff and equipment audited annually. Because of this, our reporting/results, as per the standards, must reference the correct AS/NZS 2014.8-2014 and include a photo/sketch, which is required on the reports as well. Science ASSIST reiterates/recommends using a Nata Accredited Company for testing/servicing.

Website Address <https://assist.asta.edu.au/>

Why are we associating with two other companies you may ask? Very simple; to help our existing and new clients have one Contractor who can provide expertise in three main fields:

Fume Cupboards/Fume Hoods/Biosafety Cabinets/Laminar Flow Units/HEPA Filters

Testing/Hygiene

Odour Testing (testing and supplying reports for Chem Storage Rooms/Cabinets etc. as evidence of unusually high odours in these areas so they can be rectified for proper ventilation)

We have experience in dealing with all models of Fume Cupboards that are on the current market today and most past makes/models. We can offer you original parts on your current makes/models or retro fit ours onto whatever make/model you have if those parts are not available or don't exist anymore, or you simply don't like the existing control/operating system that is already in place. This is a huge advantage over all our competitors, as most cannot do this. All associated companies have full accreditation in their respective fields. I have also presented a list of other services that are available to all our clients and new clients....**and we now have access through an online portal for all our clients to see or gather their test reports and have a full asset history on their fume cupboards etc including comments/repairs...but...there will be even more capabilities coming in the future!**

Repairs/Upgrades/Trouble Shooting of All Fume Cupboards/Fume Hoods/ETC.

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Ductless/Recirculating Fume Hood Testing and Ductless/Recirculating Fume Cupboard Sales

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Contact me now if you are unhappy with the current rates you are paying for fume cupboard/fume hood testing, contact me now for a competitive price and if you do become a client of ours, you will have access to our new online portal. How many other companies in today's market offer all this?



Chris Simm | Service Manager
Conditionaire Manufacturing Pty Ltd

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Email: chris.conairmfg@bigpond.com



LTAV

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Association of Victoria

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ABN 96 439 156 002

LTAV MEMBERSHIP INFORMATION

2021 LTAV membership is now open.

Membership is a calendar year - January 1st 2021 to December 31st 2021 regardless of when the membership fee is paid.

LTAV membership belongs to you, the Lab Tech, not the school. If you leave your school you take your membership with you. LTAV membership is not transferable.

If you haven't been a member previously, you need to fill in an Application for Membership form found at www.ltav.org.au under membership OR email membership@ltav.org.au and ask for a form. Lab Techs in their first year of employment in education are eligible for free membership.

To renew your membership or to register for the first time there are 2 options.

1. Go to www.ltav.org.au and under membership click on 2021 renewal. You have the choice of requesting an invoice (which is automatically sent to your email address) or paying straight away via credit card.
2. Fill in the 2021 LTAV MEMBERSHIP TAX INVOICE form which you will find in Lablines and on the LTAV website. This form needs to be emailed to membership@ltav.org.au or mailed. *If you mail the form please be aware that it can take over a month to finally reach the membership officer.*

Payment options

1. As mentioned above you can pay online via credit card
2. You can pay directly into the LTAV bank account (details are on the tax invoices)
3. Cheques can be mailed to the LTAV post box (see the letter head for address)
4. Cash can be given directly to the membership officer

If your school is paying your membership you need to give your accounts department the tax invoice, either the one you receive via email OR the 2021 LTAV membership tax invoice form you filled in and sent to the membership email address.

LTAV members receive 4 issues of Lablines, our fantastic magazine, per year. Your issue is posted just before the end of each term. The first issue is posted to all members from the previous year as a courtesy because membership payment isn't due until April 30th and the first issue goes out before then. It is important to note that although membership payment can be made any time during the membership year, you may miss out on some issues of Lablines if you pay after April 30th. The reason for this is that when Lablines goes to print, the number ordered is based on the number of members at the time including renewals received without payment plus about 20 extra copies.

What a year 2020 has been. The List (administered and paid for by LTAV) has been even more important this year for helping keep us all stick together and allowing much useful information to be shared. A big thank you to those Lab Techs getting behind their association and taking out or renewing membership. If you have not joined LTAV yet now is the time to do it and make our association even stronger. LABCON registration is much cheaper if you are a member with the difference in cost for a non-member being more than the actual cost of annual membership fee.

The annual membership fee is \$55 which includes \$5 GST.

Any questions or comments please send an email to membership@ltav.org.au

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Vacant

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LTAV PUBLICATIONS 2020

The following laboratory reference manuals are available from LTAV:

BIOLOGY REFERENCE MANUAL, 2013: \$35.00 for digital [USB] and black & white hard copy combination.

This REVISED handbook contains information on biological techniques, reagents, stains and culture media commonly used in secondary schools. Dale Carroll, Ritva Fazio, Sarah Daniele and Wendy Hurle have updated the earlier version by Dale Carroll, Ritva Fazio, Jeannene Bradbury and Marg Rubans of the original authors of: Jenny Kopsidas, Rita Poole, Jean Stokes and Maya Wagner.

PHYSICS REFERENCE MANUAL, 2013: \$35.00 for digital [USB] and black & white hard copy combination.

Svetlana Machouba has made many updates to the earlier version by Sabino Del Balso and Valerie Clements.

CHEMISTRY: A REFERENCE MANUAL FOR LABORATORY TECHNICIANS, 2008 by Geoff Gleadall (Dip.App.Sci.):

\$35.00 for digital [USB] and black & white hard copy combination. A comprehensive guide for the beginning and experienced Laboratory Technician in all aspects of the chemistry laboratory.

LABORATORY MANAGEMENT DATABASES by Geoff Gleadall Dip.App.Sci. [Digital – USB], Version 2, 2009: \$35.00

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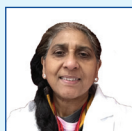
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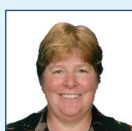
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Please feel free to contact any member of your committee with any queries or concerns.
Members are always welcome at committee meetings. Contact any committee member for more information.

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1st December (AGM)

All members of LTAV are most welcome to attend.

Please be in touch with the LTAV Secretary to confirm time and location.