

# PARAFFINALIA NEWSLETTER

## VOLUME 23, NUMBER 4 December 2018

The HGV aims to provide a dynamic continuing education program in which all persons with an interest in Histology and Histotechnology are freely invited to participate.

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# Committee Page

The members of the Histology Group of Victoria 2019 are:

Name Institution

Samantha Arandelovic Clinicallabs (Geelong)
Adrian Warmington Clinicallabs (Ballarat)

Mark Bromley Sullivan Nicolaides Pathology

Elizabeth Baranyai Cabrini Health
Kellie Madigan Leica Biosystems
Alison Boyd St. Vincent's Pathology
Kellie Vukovic Sullivan Nicolaides Pathology

Sue Sturrock Melbourne Pathology
Kerrie Scott-Dowell Dorevitch Pathology/Leica
Darcee McNair Clinicallabs (Geelong)
Emma Pan Walter & Eliza Hall Institute
Alistair Townsend Royal Hobart Hospital

Alistair Townsend Royal Hobart Hospital Sukwinder Sohal(Romi) University of Tasmania

Meghan Leo Histolab Bindi Bates Peter Mac

#### Contact us at

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Author enquiries and readers wishing to contribute articles or reports can contact the Editor - editor@hgv.org.au

Please email articles (preferably Microsoft Word format) for inclusion in the next edition to <a href="editor@hgv.org.au">editor@hgv.org.au</a> All items submitted for publication will then become the sole property of the Histology Group of Victoria Inc.

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# President's Report

## Blurb from Gtown

On behalf on the HGV I would like to thank Kellie Madigan for leading the HGV group in 2018 and continuing to stay on the committee, and welcome two Tasmanian members Alistair Townsend and Sukwinder Sohal.

For 21 years HGV has been organising local Scientific meetings, National Conferences, workshops and our well-known Trivia nights with the main goal of providing continuing education within histology. After another successful National Conference in Tasmania in 2017 the discussions started into changing our Rules of Associations and Incorporating Tasmania and forming Histology Group of Victoria & Tasmania. At the November AGM which was held at Peter MacCallum Cancer Centre proposition was accepted and this marks a new era for HGV & T.

Our educational evenings have had great turnouts and we were fortunate enough to hold one of our meetings at Trajan facility In Ringwood and have an inter-state speaker Professor Graeme Suthers. Our first Scientific meeting in Hobart was well attended.

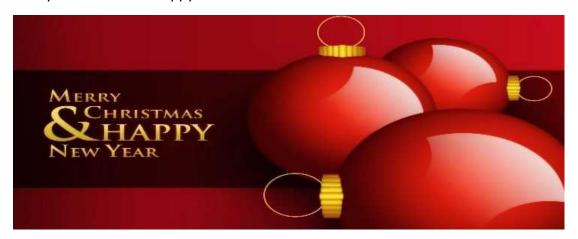
This year we had three members elected to the category of life membership for over 10 years of dedicated service to the HGV committee, Sue Sturrock, Elizabeth Baranyai and Mark Bromley.

Also, I would like to thank all our trade companies who are continuously supporting and enabling HGV and now HGV & T to organize conferences, meetings, social events and workshops which are greatly contributing to all histology members.

The 9<sup>th</sup> National Histology Conference in Adelaide is on May 24<sup>th</sup>- 26<sup>th</sup> 2019. Registrations will be opening soon, so now is the time to start thinking about setting aside the weekend and approaching your boss to contribute towards your continual education trip. More information can be obtained from <a href="https://nationalhistologyconference.com">https://nationalhistologyconference.com</a>.

If any members have suggestions as to any operational components of the HGV, please feel free to contact a committee member or send an email to <a href="membership@hgv.org.au">membership@hgv.org.au</a>

Merry Christmas and Happy New Year!



Samantha Arandelovic

**HGVT** President





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#### **ASSOCIATIONS INCORPORATION REFORM ACT 2012**

**Section 8** 

No. A0035235F

# CERTIFICATE OF INCORPORATION

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is on and from the 5 August 1997

incorporated under the Associations Incorporation Reform Act 2012

Given under my hand at MELBOURNE, this 7 December 2018

Deputy Registrar of Incorporated Associations





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Showing the right path

# Under the Microscope with Emma Pan

1. What was your first part-time job?

First year uni. I was working in a chocolate shop called Chokolait in the city. It feels really good to be surrounded by fine chocolates and sweets. I was glad that I didn't put up too much weight there.

2. How long have you worked in histology?

Just starting my third year.

3. When people ask, "So, what do you do?" How do you explain Histology?

It's quite difficult most of time. I usually say we do a lot cutting and play with chemicals, and look into the ugly, can be fascinating and beautiful sometime, truth of someone's disease.

4. What is a skill you'd like to learn and why?

Swim! I have diving licences but don't know how to swim :D It sounds very unusual and plus I love ocean.

5. If money were no object, what would you do all day?

I enjoy what I do, but I will travel and stay at different places around the world if I don't need to consider money at all. Maybe I will start with living in a small town along the coastline in France for a few months or volunteer in South Africa.

6. What's an ideal weekend for you?

It will be a sunny and warm day with a light breeze. I will enjoy going to gym in the morning and then meet up with friends or hubby for brunch. Maybe go shopping or movie later. Of course, grab a drink or maybe a few to finish the day.

7. If you could take only THREE items with you to a deserted island, what would they be?

My dog, my cat and my scuba dive gear.



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# Under the Microscope with Emma Pan

8. What is the best conference you have ever attended?

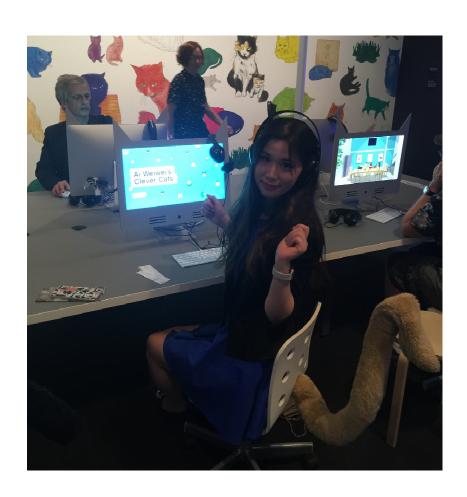
2017 NHC is the first professional conference I've attended. Surely, there will be more for me, but first one is always special, right?

9. What's on your bucket list this year?

Make some achievement in work and get my wedding sorted.

10. Where do you most want to travel, but have never been?

Tahiti



# **thermo**scientific



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# 2018 A Year in Review

In the time between the 2017 and 2018 AGM's the HGV once again held many fantastic events. The largest of course was the input into last year's National Histology Conference, the location of which was superb, and the turn out exceeded anyone's expectations. Following on from this enjoyable experience the HGV offered Tasmanian scientists a collaboration and to incorporate into the HGV and share in future educational events between both states, and so the Histology Group of Victoria and Tasmania, with a new logo to follow, was born. This makes for exciting times ahead as we bring the two Histology communities together and can only benefit our educational opportunities.

- November 2017 = National Histology Conference, Hobart
- February 2018 Scientific Meeting = Laboratory Controls
- May 2018 Scientific Meeting = Gram Stain
  - Top Student Awards
- July 2018 Scientific Meeting = Trajan Site visit
  - · Prof Graeme Suthers, Gene Expression Assay in Breast Cancer
- August 2018 Trivia Night
  - 2x 10 Year Committee Life Members awarded
  - Congratulations Sue Sturrock and Mark Bromley
- September 2018 Scientific Meeting = Multiplexing IHC
- October 2018 Tasmanian Scientific Meeting = Half day seminar in Hobart with 5 speakers
- November 2018 Scientific Meeting and AGM = IHC and FISH
  - 10 Year Committee Life Member awarded
  - Congratulations Elizabeth Baranyai
- 4 editions of Paraffinalia newsletter
- Ended 2018 with 587 members

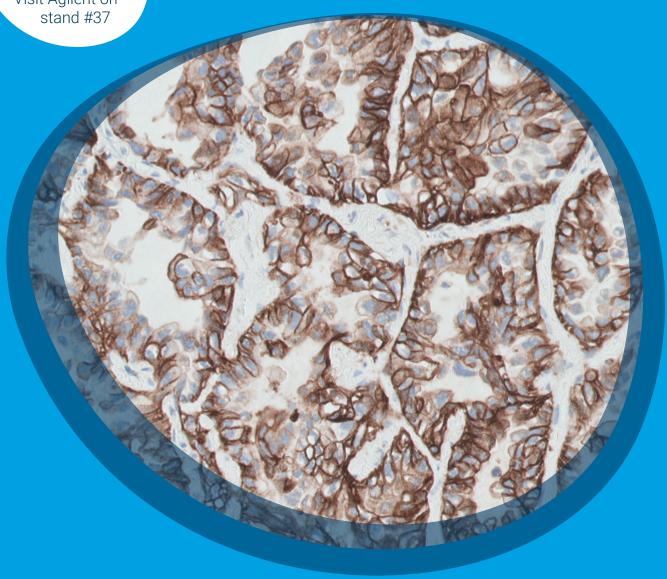
Thank you to everyone who contributed to the past successful year; speakers, sponsors and attendees – look forward to seeing you in 2019.

If you have ideas for speakers or topics for next year's Scientific meetings, please don't hesitate to let us know. If there is a new product or hot topic that you want to know more about, or you've heard an interesting speaker, or you know of someone in your lab that is doing something exciting that you think others should hear about also.

Just email the committee via the CONTACT US tab on the webpage at www.hgv.org.au/contact-us.

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# Scientific Meeting Review

# Multiplex and other IHC // Thursday 20<sup>th</sup> September Darcee McNair

Our September Meeting began with our first presenter Emma Pan, an intelligent young scientist from Walter and Eliza Hall Institute of Medical Research as well as one of our newest committee members. Emma was able to use her knowledge and experience of multiplex IHC to deliver her presentation 'The world of colours'. Emma first introduced what multiplex IHC involves, as well as the benefits and drawbacks of this newly designed technique. Some of the benefits include easy interpretation, enhanced accuracy of detecting cells with multiple markers and integrating context microenvironment information. The drawbacks however involve the time and monetary costs required to develop the protocols, limited automated platforms and the need for imaging experts. There is a wide range of reasons why this method has become so significant to immunohistochemistry. Emma emphasized on how it allows easy interpretation of accurately demonstrated cellular information and it addition, it provides a better understanding of heterogeneity of tissue with one example being B-cell lymphoma (CD3, CD10, CD20, CD21, Bcl2 and Bcl6). Emma expanded on opal multiplex IHC staining, which involves detection with fluorescent TSA (Tyramide signal amplification) reagents, enabling visualization of up to 7 colours. Various tips were also introduced such as considering epitope retrieval, pause points and signal intensities. A very informative talk, especially for those who have never worked with multiplex IHC.

Research assistant from Peter Mac Marné Prinsloo was our second speaker, who has also become very experienced with multiplex IHC. Marné simplified the complexity of this staining protocol and furthermore expanded on the imaging platforms used to analyse the end result. The Perkin Elmer Vectra microscope is more advantageous due to the fact that is has the ability to automatically scan 200 sections and can be trained to automatically segment regions and/or cells of interest. Amazingly, Marné and his team were able to fully automate multiplex IHC







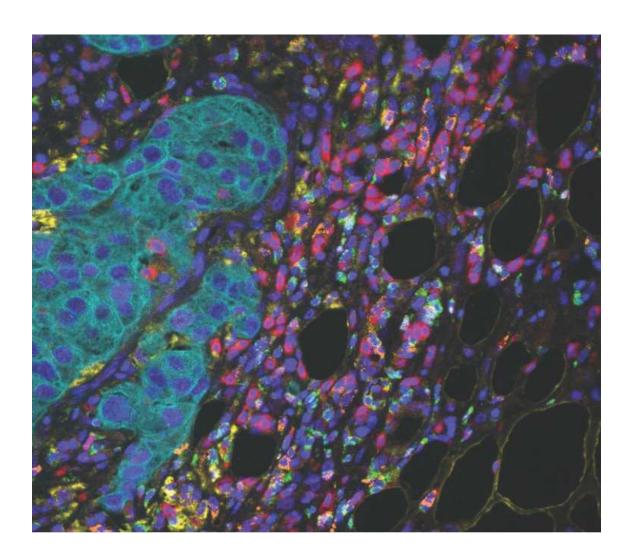
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on the BOND RX™ immunostainer (Leica), resulting in the time taken to perform 7-colour multiplex IHC from 2-3 days to only 10 hours. Integrating this automated system has enabled further advantages such as excellent reproducibility, less background staining and less manual work required by technicians therefore allowing them to complete other tasks. It was inspiring to hear how much Marné and his team have progressed and the impact they've made to automated multiplex IHC staining.



# **thermo**scientific



# Thermo Scientific ArcosSL Slide Management System

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Electrical	100-240 VAC (~) +/-10% / 0.7A (50-60Hz)	
ArcosSL Storage Trays		
Tray capacity	Up to 240 slides	
ArcosSL Storage Cabinets		
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Cabinet capacity	Up to 40 trays	

#### **Ordering information**

Description	Order Number
Arcos SL Slide Management System Includes: scanner, software, PC,	
1 PDA and zebra printer	A85300001
Mobile PDA with embarked	
ArcosSL software	A85310001
Power dock for PDA	A85310002
Battery for PDA	A85310003
Ethernet module for multiple PDAs	A85310004
ArcosSL mobile app (1 license)	A85310028
ArcosSL mobile app (3 licenses)	A85310027
ArcosSL trays (pack of 20)	A85310009
ArcosSL cabinet (empty)	A85310010
ArcosSL cabinet (includes 40 trays)	A85310011
Four-tray cardboard storage box	
(pack of 25)	A85310012
Tweezers for removing slides from trays	A85310013







# Slide storage solutions

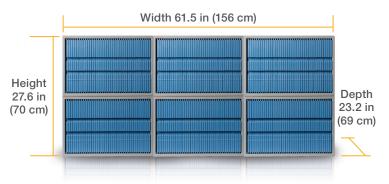
When it comes to slide archiving, high capacity usually comes at a high price – poor accessibility. The Thermo Scientific™ ArcosSL™ storage system overcomes this issue. Thanks to smartly designed storage trays and precision-engineered cabinets, the system allows large numbers of slides to be stored efficiently while maximizing ease of use.

## Protecting precious specimens

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## Smart storage

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# Scientific Meeting Review

# Inaugural Tasmanian Scientific Meeting

With the inclusion of Tasmania into the HGV, soon to be the HGVT, it was delightful to attend the 1st meeting held in Hobart on the 20th October. The 5 speakers offered a variety of topics for the assembled group.

Alistair Townsend presented an interesting case of tuberculous epididymitis. Following a case is often only available to those that work in the public hospitals, so it was interesting to hear about the patient and how this disease took hold in an unusual part of the body. Needless to say, it was an entertaining journey of a quirky patient, a developing country and self-catheterisation leading to tuberculosis of the nether regions.



Dr Beena Kumar from Monash, presented some of the pitfalls and learnings from her time as a Pathologist with IHC staining. Here is some of her advice:

Cyclin D1, when used in tandem with CD5, CD10 and CD23 may aid in the diagnosis for mantle cell lymphoma but positivity is also seen in endothelial cells and other tumours, so caution is required. Ckit can stain nuclear or cytoplasmic for example a leiomyoma shows cytoplasmic whereas in GIST it displays nuclear staining.

If for example a breast tumour appears to be a low-grade tumour on H&E, it should stain ER +ve, so if this does not occur you have a staining issue to investigate.

On triple negative breast tumours (ER, PR & HER2-neg), you can use SOX10 and it may be a myoepithelial tumour. Another marker of use in breast tumours is GATA3.

P63 +ve tumours have a poor survival, however P40 is Dr Kumar's preferred proliferation marker. GCDFP is not used anymore as it was too non-specific.

A melanoma panel is recommended as not all melanomas are \$100 positive. Particularly hard to diagnose desmoplastic melanomas are 100% SOX10 +ve.

An antibodies worth is often best seen in a panel to avoid any misdiagnosis and good communication between all departments will not only save time but ensure the best patient outcomes.

After a lovely morning tea provided by InstrumeC, Dr Penny Yarrow from Hobart spoke about the efforts of our Southern State to increase the uptake of the bowel screening tests. The importance of early detection in a disease that is estimated to have 17.000 new cases diagnosed in 2018 and that accounts for over 12% of all cancers in Australia was highlighted. The National Bowel Cancer Screening Program (NBCSP) invites eligible people starting at age 50 and continuing to age 74 (without symptoms) to screen for bowel cancer using a free, simple test at home. Many people do not take advantage of this simple test, so Dr



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# Scientific Meeting Review

Yarrow and her group made an advertisement to encourage Tasmanians to 'Poo, Poke and Post'. It can be seen on You Tube #justpooit .



Professor Dianne Nicol spoke about the some of the ethical, legal and social issues relating to the use of DNA. The benefits to the patient of having their DNA sequenced for personalised treatments are enormous and frequency of this occurring is exponentially increasing, however the legal implications and guidelines to where that information can be used is lagging. An example was the arrest of an American mass murder because a relative submitted their DNA through Ancestry.Com. The ownership of patient's tissue throughout the diagnostic process of Pathology is still a grey area that will need to be legally scrutinized very quickly.



The last speaker was Isobel Thompson, a researcher from the University of Tasmania where the Australian Registry Idiopathic Pulmonary Fibrosis (IPF) is based. IPF is a type of chronic lung disease characterized by a progressive and irreversible decline in lung function. Isobel and her fellow researchers are looking at what are the mechanisms which are involved in this nasty disease? What gets triggered? What gets switched on? Because the word idiopathic means we don't know what's causing it, so they are looking into ways to reprogram the lung epithelial cells, such that the disease does not progress. The Australian IPF registry, has now got close to 7000 patients registered in this study, which is the largest study group, so Tasmania is leading the way in the potential treatment of IPF.

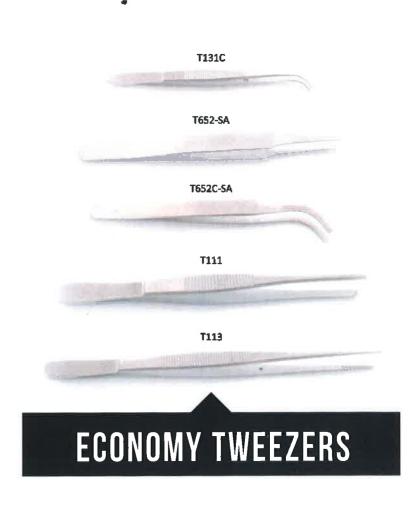
I look forward to Launceston host our next HGVT meeting in 2019.

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## SCIENTIFIC MEETING REVIEW- November Meeting

By Kellie Vukovic

On Thursday 15<sup>th</sup> November 2018 30-40 people gathered at Peter MacCallum for the AGM and final Scientific Meeting of the year.

The evening began with the AGM where a number of points were raised to our members for approval after a summary of the 2017/2018 year. The biggest decision that was accepted was a name change in 2019 to include our friends down in Tasmania. The Histology Group of Victoria and Tasmania will have Committee representatives from both states who will work together as one. Elizabeth Baranyai was made a life member of the HGV after 10 years of service on the Committee. Over the years she has given up so much of her time to help provide further education to our members in a number of different roles. The 2019 Committee was also formed with our new President Samantha Arandelovic being elected. A big thank you to the 2018 Committee for all their hard work this year.

The educational part of the evening began with a very informative talk by Dr Janez Cernelc from Peter Mac titled "Her 2 ASCO/CAP focused update testing in breast cancer guidelines". It began with an explanation of what Her 2 actually is and the fact that 15-20% of breast cancers over express the gene. The molecular classification was discussed as well as the Her 2 Therapy, Herceptin. The interpretation of an IHC slide is important – 0,1 negative, 2+ equivocal, 3+ positive and the result can be correlated with a FISH test.

The presentation was based off a recent paper with the main focus being to improve Her 2 reporting with clearer guidelines being implemented. The need to optimise IHC was discussed including 6-72 hour fixation, using optimal controls and testing on the appropriate block. There is currently an increase in Her 2 testing in our labs with repeat testing done even if the test has been performed on an initial core biopsy that is received from somewhere else. Multiple case studies were looked at which showed the different results that can be seen on any given IHC slide. Equivocal IHC results are sent for FISH testing. If this also comes back as equivocal a second person will assess the results. There was a big focus on the importance of pre analytical factors in a laboratory setting which can greatly affect the result obtained in either an IHC or FISH test.

Bindi Bates from Peter Mac followed on perfectly from the first presentation with a talk on FISH. The technique and method of Fluorescence In-situ Hybridisation was discussed in detail including the dewaxing, pre-treatment, enzyme, probe, post hybridisation and counterstaining steps. The Her 2 mutation is found on chromosome 17 and is used for equivocal Her 2 cases. At Peter Mac if an IHC test is positive and the FISH test is negative the IHC should be retested. The results however go off the positive IHC result– IHC trumps FISH. In the past, 50 tumour cells were counted in a FISH test. The updated technique now only requires 20 cells to be counted along with Pathologist review and correlation with the IHC result. Equivocal results still require a second screener to assess the slide with the importance of screening the whole slide discussed. The presentation ended with a number of case studies where the audience was given the opportunity to count 20 cells and assess whether the result was positive or negative



Liz being presented with life membership by Kellie



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### **Detailed View**



Illumination white



Illumination blue



Illumination blue/white

#### Technical Data

- Dimensions overall (W/D/H): 280 x 386 x 77.5 mm
- Dimensions water tank (W/D/H): 178 x 200 x 56 mm
- Max. usable depth: 56 mm
- Filling level: 50 mm
- Tank capacity: 1.77 l

- . Heated rim (W): 50 mm, revolving
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- Instrument fuse, primary circuit: T 6.3 A
- Power supply: 220 240 V, 50 60 Hz, 1200 VA

#### Ordering Information

### pfm Waterbath 1000

REF

PU

041010 1 pc.



#### Ordering Accessories





Cover with Handle for pfm Waterbath 1000

REF

PU

041020 1 pc.

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- Protects against contamination



# WELCOME TO ADELAIDE, SOUTH AUSTRALIA 2019

Adelaide is bursting with culture, flavors, events and entertainment - it's a gateway to some of Australia's best wine country and is dotted with historic buildings, lush parklands and sprawling botanic gardens. When it comes to food and drink, South Australia truly is the land of legends. From culture-rich Adelaide to the lush Adelaide Hills; the bountiful Barossa to the Eyre Peninsula; our state has been named a Great Wine Capital of the World and is home to an all-star cast of world-famous chefs, winemakers and producers.

Adelaide is also a conference city that ticks all the boxes and delivers a truly 'Australian' experience. With world-class facilities, easy access, a commitment to sustainability, value for money, safe surrounds and a superb climate, it's easy to see why Adelaide is consistently rated as one of the world's best destinations for business travel and events. Known as the '20-minute city' Adelaide has regular direct international and domestic flights, the fastest airport to city transfer in Australia, and a convenient walkable layout with free tram service. Add to this Adelaide ranks as the most affordable capital in Australia, meaning that delegates will enjoy exceptional ease and value during their event.

The Histology Group of South Australia and its organizing Committee warmly invites delegates, presenters and trade representative to Adelaide, South Australia for the **9th National Histology Conference**. The event will be held at the Adelaide Convention Centre on the weekend of 24 - 26 May 2019.

The theme is "Diagnosis to Prognosis" which will see delegates experience a range of workshops and educational, plenary sessions over the three days to provide continuing education and professional development to those within the medical science, clinical and research fields. Modern equipment and consumables will also be showcased by trade sponsors and a range of social activities to indulge in what our great city has to offer.



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Commonly Used In: Spill Kits & Operating Theatres



# Formalex Green - Bulk Liquid Neutraliser

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Commonly Used In: Bulk Neutralisation for environmentally friendly sink disposal.



# **AFS - Air Filtration System**

The simple and easy fix for poor air quality in your work environment. It removes both particulates and solvent fumes such as xylene, formalin, alcohol, toulene and more from your air. It features a small footprint (about the size of a water cooler bottle) and is a quick and inexpensive solution to clean air.

Commonly Used In: Laboratories, nail salons, patient wards, nursing homes and more.



# Future Events:

## Thursday 21<sup>st</sup> February

Educational Evening- Cases that make you say "What the #\*^@?"

Venue- Peter Mac

Thursday 2<sup>nd</sup> May

Educational Meeting-Leica Tour and Speaker TBA

Venue-Leica 495 Blackburn Rd Mt Waverley

24<sup>th</sup> -26<sup>th</sup> May

National Histology Conference

8 February 2019 | Abstract Close

15 February 2019 | Early Bird Registration Fees Cut-Off - normal

registrations fees apply

1 March 2019 | Abstract Acceptance

Venue- Adelaide

Thursday 19th July

Trivia Night

Venue -TBA

Thursday 5<sup>th</sup> September

Educational Evening- AGM and IHC Topic

Venue-Peter Mac

Thursday 24<sup>th</sup> October

**Educational Evening- Veterinary Pathology** 

Venue-Peter Mac

November

½ Day Educational Meeting

Venue-Launceston

# Tek Equipment<sup>\*</sup>

Down-Draft Grossing Tables | Ventilated Cabinets | Mortuary Equipment

# Down-Draft Grossing Workstation

- GrossPath GP-1500
- Integrated active carbon air recirculation filter
- No ducted ventilation system needed
- · Height adjustable





# Ventilated Staining Tables

- FT series
- Stainless steel construction
- Ducted or integrated fan filter
- Removal of unsanitory vapours
- Stainless steel or glass doors

# Mortuary & Autopsy Equipment

- · High quality & innovative products
- Stainless steel construction
- Large range of equipment including: trolleys, body trays, racking, autopsy tables & cool rooms
- CAD autopsy room & lab design service



