



Histology Group of Victoria Inc.

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PARAFFINALIA

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Editor: Elizabeth Baranyai

“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.

Committee Page

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|----------------------|--------------------------------------|
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| Kellie Vukovic | Peter MacCallum Cancer Centre |
| Sue Sturrock | Peter MacCallum Cancer Centre |
| Kristy DeGeorge | Austin Pathology |
| Jesenska Jefic | Austin Health |
| Maria Flynn | Melbourne Pathology |
| Meghan Leo | Histolab |
| Tania Marsden | Royal Children's Hospital |
| Kerrie Scott-Dowell | Dorevitch Pathology/Leica |
| Alison Boyd | St. Vincent's Pathology |

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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 editor@hgv.org.au
All items submitted for publication will then become the sole property of the Histology Group of Victoria Inc.

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BLURB FROM THE BUSH

No doubt when this hits your inbox the National conference will be done and dusted. To all those that attended, I trust the Queensland group lived up to all expectations and delivered a sensational event. Perhaps more news in our next newsletter about its successes.

The most recent scientific meeting was certainly an interesting affair. A look into our legal requirements for record storage, and linked to this a focus on the importance of referring blocks for testing and what that means to patients. I think all who were in attendance certainly appreciated the emphasis that should be placed on external requests.

The next scientific meeting is upon us and will feature some reviews of automated H&E staining equipment. I think of all topics, when we request feedback from conferences, this would be one of the favoured comments – “It would be good to see talks on reviewing equipment”. Well, here it is! Some of the more modern H&E stainers will be reviewed by current users, warts and all.

And of course the Trivia night is also on the horizon. Tables are already being booked – there are always those who miss out, so if you are still considering, don’t leave it long. This is the highlight of the HGV social calendar and a great chance to catch up with colleagues from all around the state.

Our new website is up and running. If you haven’t had a chance to visit the site, have a look at www.hgv.org.au

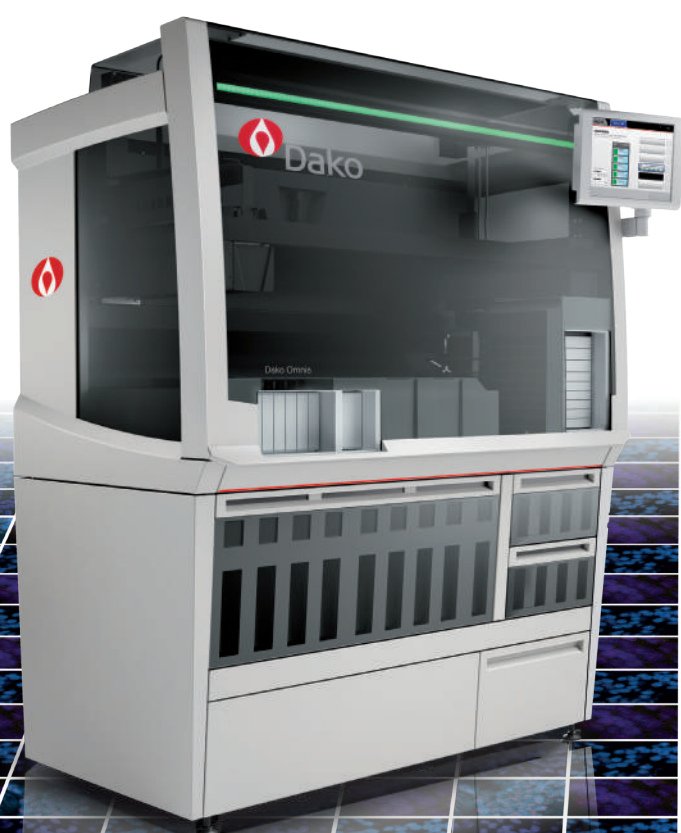
Adrian Warmington
HGV President



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Under the Microscope with Maria Flynn

Anatomical Pathology

Grade 2 Scientist

Melbourne Pathology

1. What was your first job?

Waitress at a function centre.

2. How long have you worked in histology?

25 years this May.

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

As saying histology usually gets you a blank look, I usually say that I work in the area of pathology that deals with body tissue removed during surgical procedures. Things like breast lumps and moles.

4. Who would you most like to have dinner with and why?

My choice would be Nelson Mandela (if he was still alive), for 2 reasons. First, because he led such a long and colourful life, including his 27 years incarcerated. Secondly, because he not only achieved so much for his own country, but ended up having such a significant impact on people's consciousness everywhere.

5. What is your all-time favourite movie?

'Drop Dead Fred'. I still find it hilarious, no matter how many times I've seen it.

6. What is your favourite stain?

Masson Trichrome.

7. What is your favourite food/Restaurant?

Mures Upper Deck, in Hobart. Their seafood chowder is amazing.

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

The very first HGV conference that I attended at St Vincent's. In fact I think it was the first one.

9. Favourite beverage?

Pina Colada.

10. What is your dream holiday destination and why?

The Czech Republic. My father was born there and I want to visit all the places he has told me about from his childhood. I also have lots of relatives living there that I still haven't met.

Reported by: Kellie Vukovic
Peter Mac



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Journal Review by Adrian Warmington

Non-aqueous permanent mounting for immunofluorescence microscopy

J Espada, A Juarranz, S Galaz, M Canete, et al.
Histochem Cell Biol (2005) 123: 329–334

Historically the assumption in histology has always been that immunofluorescence (IFL) staining requires an aqueous mountant to facilitate preservation over a longer period than would be provided had the sections been mounted in a xylene based mounting media. Whilst a decade old, this paper came to my attention as a means of potentially preserving IFL staining both with the objective of maintaining staining intensity longer for slides that are delayed for reporting and for long term storage.

The research assessed formalin fixed paraffin embedded tissue as well as cell cultures. The antibodies tested included E-cadherin, β -catenin and pan-cytokeratin. The methodology used an indirect method using FITC labelled secondary antibodies. Following staining slides were mounted in one of three mediums; 25% glycerol in PBS; 8% Mowiol in glycerol/PBS; and DPX. The latter followed dehydration through 70% and absolute ethanol and then clearing in xylene. Sections were then stored at room temperature and 4°C.

The results were scored -, +, ++, +++.

All three mounting media scored +++ upon immediate examination.

The slides were re-examined after one month. At room temperature storage, the two aqueous mounting media scored +, whilst the DPX continued to score +++. The only difference for slides stored at 4°C was that Mowiol mounting media scored ++.

The slides were again re-examined after one year. At room temperature DPX continued to score +++, whereas the aqueous mounting media slides were now negative. The only difference for slides stored at 4°C was that Mowiol mounting media scored +.

The natural fading of IFL staining is due to the chemical damage produced by light and reactive oxygen. The theory behind DPX being a better long term mountant is that DPX has a lack of water and thus oxygen groups. It was also concluded that whilst temperature appears to have some bearing on some aqueous mountants, that this is not consistent, but that it appears to have no bearing on DPX mounted sections.

Might be something worth trying in your laboratory!

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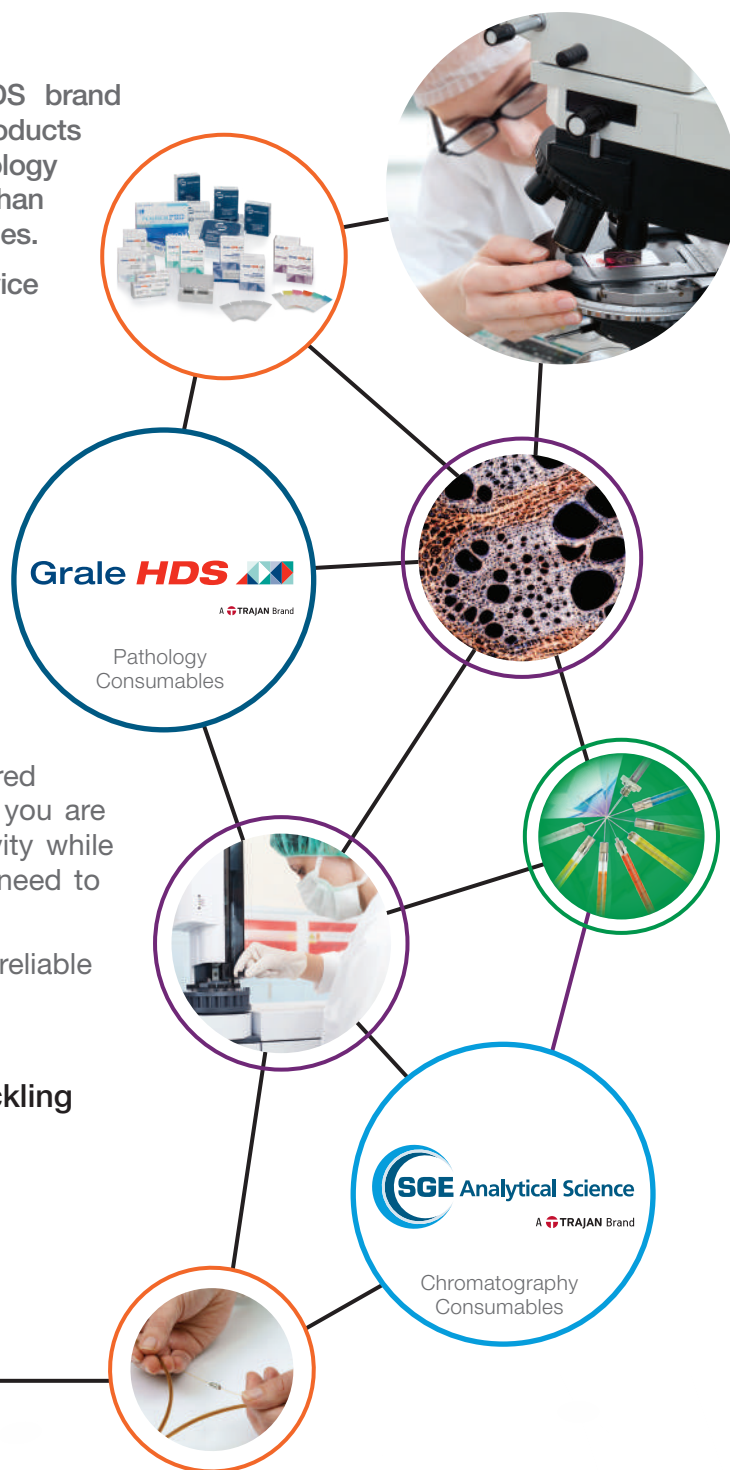
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HGV TRIVIA NIGHT 2015

Date: Friday 14th August

Time: 6.30pm-10.30pm

Location: The Metropolitan Hotel
263 William Street
(corner Lt Lonsdale Street)
Melbourne VIC 3000

Price: \$25 per person
(Tables of 10)

Including: sit down dinner, one house beer/wine/soft drink, Trade sponsored prizes and rounds with a professional host

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Payment and food orders due by Friday 10th July. Please be quick as tables are limited and sold on a first in best dressed basis!
(Menu to follow at a later date)

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Email: kellie.vukovic@petermac.org

Mail: Attention: Kellie Vukovic
Peter MacCallum
Level 1 Smorgan Family Building
Crn St Andrews Place and Lansdown St
East Melbourne 3002

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Direct deposit (please leave name as a reference)

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BSB: 063 449
Account no.: 10065881

Please forward this information to Kellie Vukovic via mail or email listed above after payment.

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Contact Email: _____

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| XH-90 | Wax Trimmer | Each | \$375.00 |

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HGV Most Interesting Case Study Competition

The HGV is seeking submissions of interesting case studies from your Laboratory!

Case Studies will be printed in Paraffinalia each edition.

There will be a prize of \$250 for the most interesting case study of 2015.

The winner will be announced in the first edition of Paraffinalia 2016 and the prize

Maximum of 2 pages including images and referencing.

Please submit all case studies electronically to editor@hgv.org.au

Case study

Clinical notes

19 year old male presents with persistent tonsillitis

Specimen

Bilateral tonsillectomy

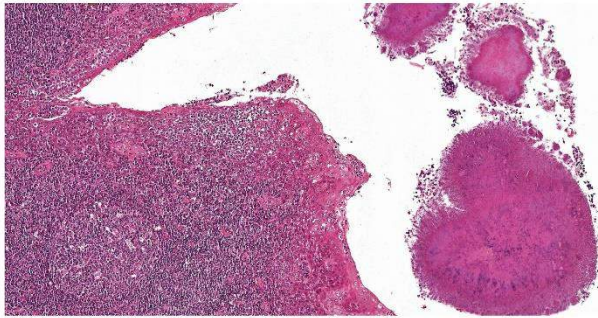
Microscopy

Tonsil specimen showing diffuse lymphocytic infiltrates within the surface epithelium as well as the subepithelial region. Slight-moderate lymphocyte infiltration and the presence of Ugras's abscess leading to the defect in the surface epithelium. There was evidence of actinomyces colonization.

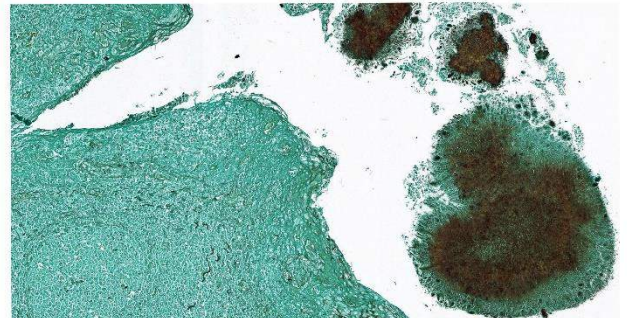
Diagnosis.

Chronic tonsillitis with actinomycosis

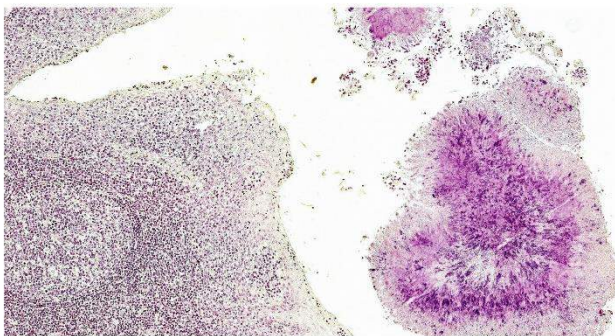
Notes- Actinomycosis can be recognised as aggregates of filamentous basophilic microorganisms arranged in a radial spoke-like fashion; the so-called “ray-fungus”. It is an actinobacteria class of bacteria. They are all gram-positive. All species grow best under anaerobic conditions. *Actinomyces* species may form endospores, and, while individual bacteria are rod-shaped, *Actinomyces* colonies form fungus-like branched networks of hyphae.^[1] The aspect of these colonies initially led to the incorrect assumption that the organism was a fungus and to the name "Actinomyces" or ray fungus. Also note they do stain with Grocott's Methanamine Silver.



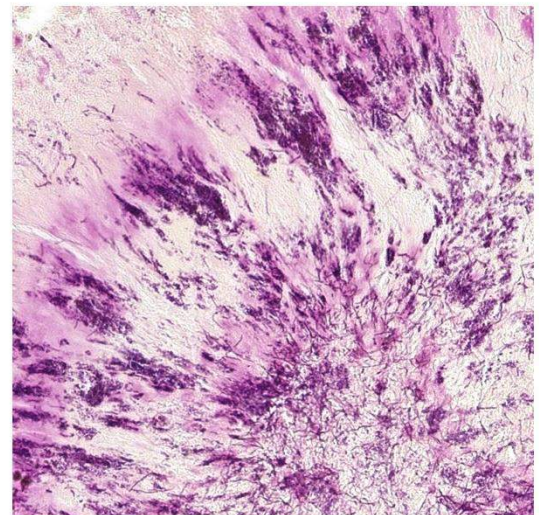
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Actinomyces-Grocott



Actinomyces-Gram low power



Actinomyces-Gram high power

Submitted by Kerrie Scott-Dowell

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Review of 7th May, Scientific Meeting

Who Owns What? The Requirements for Supply and for Tissue Samples-by Meghan Leo

The second scientific meeting for the year addressed the issue of tissue ownership, specifically in regards to further testing that may be required.

The first speaker of the night was Elizabeth Kennedy. Elizabeth is a General Counsel for Peter Mac and has been a career lawyer for over 30 years working in the medical field.

Elizabeth's talk, 'Who owns what? Ownership of human tissue samples' explored the legality surrounding the topic. Currently no legislation regarding the issue exists; The Human Tissue Act doesn't address ownership of tissue once it is collected from the human body. Various case studies were presented focusing on some of the common laws that have been created to determine ownership.

According to the Retention of Laboratory Records and Diagnostic Material, NPAAC, 2013, the pathology practice does not legally own the specimen itself. Once tissue has been processed, the ownership of the material becomes vague; the paraffin blocks are owned by the laboratory, but the tissue inside is ambiguous. This has led to patients losing control of what happens to their samples; for example laboratories are reluctant to send out paraffin embedded blocks for molecular testing as they are required to retain the block for a minimum of 10 years to ensure a physical audit trail.

Elizabeth concludes that the Human Tissue act requires amendment regarding the use and disposal of samples; suggesting the addition of patient consent and having patients informed of the handling and use of their tissue.

The second speaker for the night was Dr. Ben Brady. Dr. Brady is an oncologist currently consulting at Cabrini, Peter MacCallum and several private hospitals across Melbourne.

Dr. Brady's talk 'Molecular Biology' provides patient's perspective regarding the topic. He addresses the importance of immediate testing given the time required; believing ownership should be forgotten and the testing begun to ultimately provide the most rapid and suited treatment to our patients.

The key aspect of this talk was to address the duty of care to patients, providing case studies illustrating that patient care is paramount in our industry, specifically, given that molecular testing has a longer turnaround.

Dr. Brady's main concern was the potential distress patients endure whilst waiting for results. Suggesting that lab staff and pathologists put more of an emphasis on making molecular testing a higher priority, as it is just as important as routine histology.

The discussion at the end of Dr. Brady's talk highlighted that if pathologists would put in their reports what the most appropriate block would be in the event of molecular testing being requested then a large amount of time and hassle could be saved.

Conclusively the meeting highlighted the importance of rapid diagnosis, regardless of who owns the specimen, with both presenters providing interesting case studies to clarify the effects of these technicalities.



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HISTO-OGRAPHY COMPETITION



Figure 1 This is an H&E of a sawfly larva. Low power showing it is an eating machine with a large jaw and gut filled with plant material.

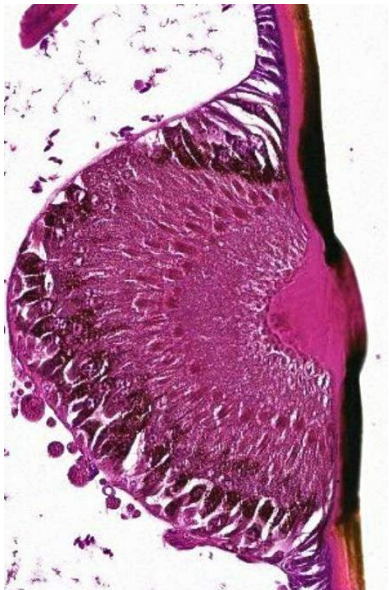


Figure 2 Higher power image shows one eye of the sawfly larva. The difference between caterpillars and sawfly larvae is the number of eyes. Caterpillars almost always have 12 stemmata, 6 on each side of the head. Sawfly larvae usually have just a single pair of stemmata or simple eyes. These light sensitive structures can probably only sense light and dark, and do not distinguish shapes or colour.

Submitted by Kerrie Scott-Dowell

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Automation – Stainers

Choices and commentary on stainers currently available
by the people using them

Speakers: **Abi McDonald – Dako Coverstainer**
Austin Health

Alex Laslowski – Roche Symphony
Monash Medical Centre

Maria Flynn - Sakura Prisma
Melbourne Pathology

Date: Thursday 25th June, 2015

Time: 6:00 – 6:45 Refreshments
6:45 – 8:00 Presentation

Venue: Brockhoff Lecture Theatre
Level 3, Smorgon Family Building
Peter MacCallum Cancer Centre
St. Andrew's Place, East Melbourne

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Attendance at this meeting contributes to APACE points



Histology Group of Victoria Inc.

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Future Events:

2015

Thursday 19th February

Scientific Meeting- RIMT Student Project Presentations

Venue: Peter Mac

Thursday 7th May

Scientific Meeting: ~~Who Owns What?~~

~~The Requirements for Supply and for Tissue Samples.~~

Venue: Peter Mac

5-7 June

~~7th National Histotechnology Conference in conjunction with the~~

~~9th Asia-Pacific International Academy of Pathology Congress~~

~~Brisbane Convention and Exhibition Centre~~

~~Brisbane, Queensland~~

Thursday 25th June

Scientific Meeting

Venue: Peter Mac

Friday 14th August

Trivia night

Venue: The Metropolitan Hotel

263 William St.

Melbourne VIC 3000

August 28- September 2

NSH Symposium/Convention

Gaylord National Resort and Convention Centre

Washington, DC

USA

Thursday 10th September

Scientific Meeting

Venue: Peter Mac

Thursday 12th November

Scientific Meeting/AGM

Venue: Peter Mac