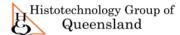
TISSUE PAPER Histotechnology Group of Queensland



"Bridging histology laboratories since 1982"

The Histotechnology Group of Queensland Newsletter - Volume 42



President's Report - Jerres Alcober



Welcome another edition of the official HGQ newsletter, the "Tissue Paper". Last year's key events were the HGQ Trivia Night and the 2017 National Histology Conference in Tasmania. Together with our scientific meetings and newsletter, these provided our members with opportunities for further education and networking to assist with professional development in their choosen careers and roles. The 2018 HGQ committee was recently elected at the AGM. The call out for HGQ members to be part of the HGQ committee to bring fresh ideas & energy was answered with a new look committee in

2018. Coupled with a fresh outlook and direction, the stage is now set to provide growth as a committee, which will in turn, be beneficial for its members and sponsors. I am very excited to work alongside the newly-elected committee and look forward to see what's in store for members in 2018. To keep up to date with the HGQ, take advantage of free membership at www.hgq.org.au . Until the next edition, take care, stay safe and enjoy!! Happy reading;)

Newsletter Design by Jerres Alcober



Dako Omnis

A generation ahead in IHC and ISH

- Unmatched throughput and overnight capacity
- Same-day IHC and ISH complete patient-case management





() Dako



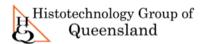






Read more at www.agilent.com





Executive Committee 2018

President:

Jerres Alcober - TPCH

Secretary:

Amanda Marsden - PAH

Treasurer:

Mark Bromley – SNP

Committee:

Kellie Vukovic - SNP

Chris Cazier - QUT

Arin Chandra – TPCH

Melissa Hilas – Mater

Pathology

Greg Bowlay - Mater

Pathology

Toyah Crampton -

Aquesta

Lloyd Blundell – Trade

Brett Harrison - Trade

Jessica Unwin - Trade

Publication Guidelines

Material in this Newsletter may be copied for personal use only and not for commercial gain. Both the Author and permission to copy must be acknowledged. No responsibility is assumed by the Histotechnology Group of Queensland Incorporated or the Editorial Committee for any injury and/or damage to persons or property as a matter of product liability, negligence or otherwise, or form from any use or operation of any methods, products, instructions, ideas contained in this newsletter. It is the user's responsibility to ensure that all procedures are carried out in accordance with all relevant Health and Safety requirements. Any opinions expressed are those of the contributors and are not necessarily those of The Histotechnology Group of Queensland or the Editorial Committee.

Guidelines to Contributors

Please forward submissions in Microsoft Word or compatible word processing program via email. For any attached photos, include these in a separate files.

Submissions will undergo a review & approval process prior to publishing submissions into the newsletter.

Newsletter Correspondence

For **advert & article submissions** including any queries or enquiries, please email newsletter@hgq.org.au

Advertisement Rates

For **latest advert pricing & packages** including any queries or enquiries, please email <u>newsletter@hgq.org.au</u>



Advancing Cancer Diagnostics Improving Lives



BOND-III

FULLY AUTOMATED IHC & ISH STAINER





MAKE A DIFFERENCE

ELEVATE LABORATORY STANDARDS

- » Highest throughput per square metre.*
- » Total tissue care.
- » Connect to a huge range of lab tools such as CEREBRO specimen tracking and workflow management system.
- * Compared to other leading free standing, IHC and ISH stainers.

YOUR NEXT STEP ILLUMINATED

- » See reagent levels and status changes at a glance.
- » Unhindered access to bottles, so you can fill anytime.
- » Real time alerts and volume measurements.

EXCEPTIONAL CASE TURNAROUND TIME

- » Complete cases in an average time of 2.5 hours.
- » Three independent trays allow for flexible case management.
- » Antibodies, probes and detection systems can be accessed anytime.
- » Spare capacity for urgent cases.

1800 625 286 (Australia)

0800 400 589 (New Zealand)

LeicaBiosystems.com

Copyright © 2017 by Leica Biosystems Melbourne Pty Ltd, Melbourne, Australia. LEICA and the Leica Logo are registered trademarks of Leica Microsystems IR GmbH. BOND is a trademark of Leica Biosystems Melbourne Pty. Ltd. All rights reserved.

17607 Rev A · 10/2017

2017 National Histology Conference Review

Kellie Vukovic - Scientist - SNP Central

The 2017 National Histology Conference held in Hobart from the 16th-19th November was a huge success with just under 300 registered delegates, including 20 Trade Exhibitors. This is the very first year that every state/territory in Australia was represented by a histologist.

WHAT IS THE NATIONAL HISTOLOGY CONFERENCE?

The National Histology Conference in Australia commenced in 2003 after talks between the Victorian and New South Wales histology groups which led to the organisation of the first National Conference in Sydney. Since that first conference, the states with organised histology groups agreed to hold the conference every two years rotating through the different states.

The event has grown in stature and professionalism with the venues, presenters and social engagements continuing to drive the conference to new levels of sophistication and education. This conference explored the potential for the histology groups to venture to states currently without organised histology groups. It provided one further step in the evolution of histology meetings by broadening and expanding where these are held with a hope to one day create a National entity.

Planning for the next National Histology Conference is already underway with the event to be held in South Australia in May 2019.

A BIT ABOUT HOBART

Hobart, the capital of Australia's island state of Tasmania, sits on the River Derwent. With a population of approximately 225,000, it is the second least populated Australian capital city. Hobart serves as a focal point and mecca for tourism in the state of Tasmania. In 2016, Hobart received 1.8 million visitors, surpassing both Perth and Canberra, tying equally with Brisbane.

The Royal Tasmanian Botanical Gardens is a popular recreation area which is a short distance from the city centre. It is the second-oldest Botanic Gardens in Australia and holds extensive significant plant collections. Hobart is also well known for the Salamanca Markets held every Saturday, The Museum of Old and New Art (MONA), multiple Wineries and the famous Sydney to Hobart Yacht race. The city's backdrop is 1,270m-high Mount Wellington, with sweeping views plus hiking and cycling trails.





WORKSHOPS

There were a number of workshops offered in addition to the conference in the days leading up:

Multiplex IHC Workshop

• This class demonstrated a number of methods to label and visualise multiple antigen staining using IHC techniques using the DAB reagent.

Tissue Recognition – The Basics

• This was aimed at introducing the basic concepts involved in tissue recognition both macroscopically and microscopically.

Pathology of the surgical cut-up: What would you need to know before making the cut?

• This class used a combination of theory and potted museum specimens to show how resection specimens are handled in surgical cut up.

Tissue Recognition – The Weird, The Wonderful and The Wacky

• Through the use of macroscopic samples and microscopic images samples not commonly seen in the lab were looked at and recognised.

Perfecting the Gram Stain

• This wet workshop aimed at familiarising participants with a number of Gram staining methods submitted to the RCPAQAP for assessment.

Molecular Breakfast Workshop

• This looked at molecular pathology techniques that are becoming increasingly relevant in the modern Anatomical Pathology laboratory.

FRIDAY NIGHT TRADE OPENING

The first social gathering of the Conference was the Trade Opening which was an opportunity for delegates to catch up with their interstate colleagues, sponsors and exhibitors. The Trade Reps put on an impressive night with give-aways, demonstrations and a competition which involved delegates scanning QR codes at each trade booth to

win a prize. The latest technology from each company was displayed and it was a great opportunity to go around and meet the different reps from each state.

DAY ONE - SATURDAY

We were extremely fortunate to have the Conference officially opened by Her Excellency, Professor the Honourable Kate Warner, AM, Governor of Tasmania. After a brief welcome, the National Anthem and some information about Hobart, the Conference began:

- RCPAQAP Update Julia Pagliuso
 - Discussed the changes that are continuing to evolve and future projects in the AP lab.
- Climate science in Antarctica with histotech roots Stacy Deppeler
 - Highlighted the research work done in Antarctica and the link as a Histotechnician
- Role of percutaneous renal biopsy in kidney transplant recipient management-Dr Karen Whale, Tony Van Galen
 - Summarised current laboratory procedures in preparation, processing and evaluation of transplant renal biopsy tissue.
- A guide of how to get a scientific article published Alex Laslowski
 - Detailed the process involving how to process a scientific journal: Where to start? What is involved? Where to submit?
- Diagnostic and clinical utility of liquid biopsy: An exploration spanning CTCs to ctDNA – Associate Professor Kevin Spring (Keynote Speaker)
 - Discussed the different attributes, technical challenges and diagnostic opportunities for liquid biopsies.
- Circulating tumour DNA analysis: What is the limit? Professor Allen Chan (Keynote speaker)
 - Shared the latest development in this field as well as the use of circulating DNA analysis for the screening of early cancers.
- Electron microscopy in pathology: current status and the impact of new technology going forward Associate Professor Murray C. Killingsworth
 - The continuing role of EM in rare disease diagnosis and the benefits of recent advantages in imaging and specimen preparation.
- Using Pathology (Rapid Diagnostic Tests) to empower communities in East New Britain, Papua New Guinea – Lisa Davidson
 - Described how 600 local community members in PNG have been empowered to provide testing and treatment for malaria in their villages.
- The use of diagnostic FFPE material in cancer epidemiology research Neil O'Callaghan
 - Centred on the collaborative PEDIGREE cancer study which endeavours to generate evidence to show that cancer genomics can be used to prevent cancer.

- · A histology scientist in molecular world Siok Chang
 - Shared a personal experience as a histopathology scientist being part of a molecular team.
- The names of stains; histology Part 1 Jean Mitchell, Jane Parr
 - Over two parts, this presentation introduced delegates to "the names of the stains" and a lesson in histology history.

CONFERENCE DINNER

The Conference Dinner was held at the beautiful Glen Albyn Estate and was an extremely popular event with approximately 200 people attending. The venue itself is dramatically perched above the shores of the Derwent River with a back drop of the historic Shot Tower with views that span Storm Bay, Bruny Island and beyond. The night began with drinks and canapés on the deck as guests enjoyed a sunset by the river. The band, NEON, was amazing and kept the dance floor going the entire night. The photo booth was also a very popular addition to the evening.





DAY TWO - SUNDAY

It was great to see so many people attend the Sunday morning session even after such a big night at the Conference dinner:

- The names of stains; histology Part 2 Jean Mitchell, Jane Parr
- Hepatocellular Adenoma Immunohistochemistry Patrick Martin
 - Reviewed the currently available IHC that allows the identification of various subgroups and discussed the technical details involved in optimising these antibodies.
- Renewed national cervical screening program: From cytology to human papillomavirus nucleic acid testing – Grace Tan

- Provided an update on the approved HPV NAT that are currently available in the marketplace.
- Working in the multi-generational lab space Kellie Madigan
 - Learning and understanding the differences between each generation in the workplace and seeing what influenced them at home and the workplace.
- How to get away with murder Dr Chris Lawrence
 - Do not dispose of the body!
- NSCLC FISH panel Meghan Leo
 - ALK, ROS1, RET and MET are four NSCLC gene mutations that can be screened for via FISH.
- An improved test for the diagnosis of Rabies for resource poor laboratories –
 Jean Payne
 - Talked about the Rabies Immunoperoxidase Antigen Detection test (RIAD) which has been developed into a user friendly kit.
- Tasmanian aquatic animal health surveillance programs histology of common submissions and diseases – Dane Hayes
 - Illustrated the histology of the wide variety of marine animal submissions in Tasmania which are investigated for diseases caused by a variety of agents.
- Modernising Histopathology The challenge of designing a state of the art histopathology laboratory in a large, private pathology laboratory facility – Ted Ditchmen
 - Gave an insight into how the team at Sullivan Nicolaides joined two labs together to create a state of the art, technically advanced laboratory.
- * THE PDF FILES OF THE ABOVE PRESENTATIONS CAN BE ACCESSED VIA: https://hgv.org.au/newsletter/





Tek Equipment*

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
- · Roll out trolley option
- · Height adjustable shelving
- · Ducted or integrated fan & filter
- · 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



www.tekequipment.com.au | 1300 368 138 | info@tekequipment.com.au



The Sixth International Workshop in Diagnostic Immunohistochemistry



66 Dear Colleagues,

On behalf of the Australasian Immunohistochemistry Society, it is my pleasure to invite you to join us at the Sixth International Workshop in Diagnostic Immunohistochemistry which will be held at Twin Towns Resort in Tweed Heads-Coolangatta, between the 27th and 29th of April 2018.

The lectures delivered by experts in the field will provide you with an update on diagnostic immunohistochemistry with a special focus on colorectal, breast, lung and endocrine cancers. The lecturers will discuss practical methods of addressing issues related to planning and optimisation in immunohistochemistry. New modern concepts related to image analysis including quantitative digital pathology will be introduced. Also, important quality assurance topics will be debated by experts from Australia, United States, Canada and Ireland.

Last but not least, you will have the opportunity to meet your friends and other colleagues with similar professional interests.

Overall, I believe that the Sixth International Workshop in Diagnostic Immunohistochemistry will be an educational event of exceptional value.

I am looking forward to meeting you in Coolangatta-Tweed Heads in April 2018!

Dr Eugen Petcu, MD, PhD (e.petcu@griffith.edu.au)

27.04 to 29.04.2018, Coolangatta-Tweed Heads, Australia

For more info, go to the following link - http://dihc.org.au/program/



PLATINUM SPONSOR



Sponsors

Gold sponsor



BIOSYSTEMS

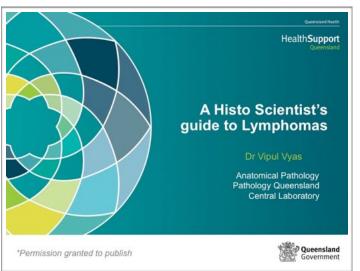


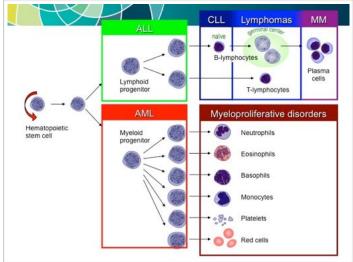
An Agilent Technologies Company











- · Most lymphocytes are in lymph nodes, spleen, bone marrow and lymphatic vessels
- · 20% of white blood cells in blood are lymphocytes
- · T cells, B cells, NK cells
- · B cells produce antibodies that help fight infectious agents
- · T cells help B cells produce antibodies and they fight viruses

Immature lymphocytes that travel to the thymus differentiate into T-Cells - "T" is for Thymus

Immature lymphocytes that travel to the spleen or lymph nodes differentiate into B Cells - "B" stands for the Bursa of Fabricius, which is an organ unique to birds, where B cells mature.

How cancer develops

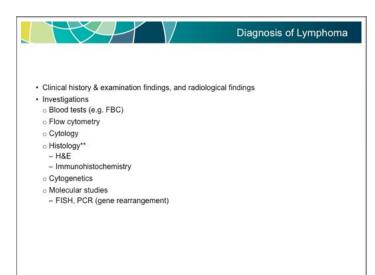
- · Normal cells are programmed to multiply and die when they grow old
- · Signals to multiply and die are controlled by specific genes
- · Mutations can occur in these genes
- If enough mutations occur in genes controlling growth or cell death a cell begins to multiply uncontrollably
- · The cell has then become cancerous or "malignant"

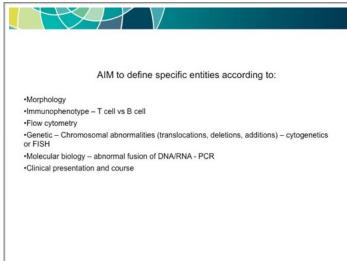
What is Lymphoma?

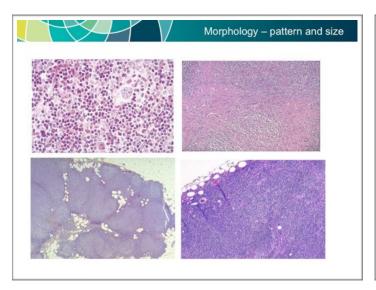
- · Neoplastic disorder of the lymphoreticular system
- Monoclonal proliferation of a particular immune cell type
- In solid organs: may be nodal or extranodal
- · Different classification systems
- B cell lymphoma, T cell lymphoma, NK cell lymphoma, etc.
- Cell size and/or architecture
- Clinical behavior (indolent vs. aggressive)
- Hodgkin vs. Non-Hodgkin
- · Wide spectrum of prognosis

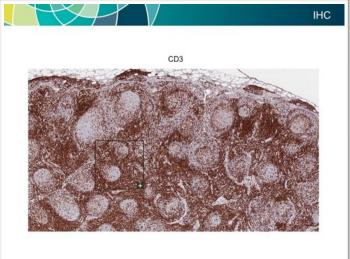
Overall 5 year survival rate is approximately 76% Hodgkin: 87% Non-Hodgkin: 71% - Males - Fenales - Persons - Males - Fenales - Persons - Fe



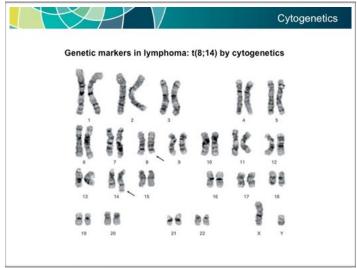


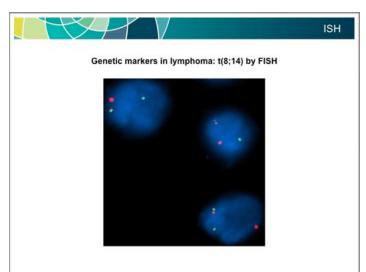


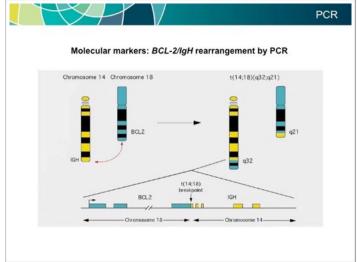


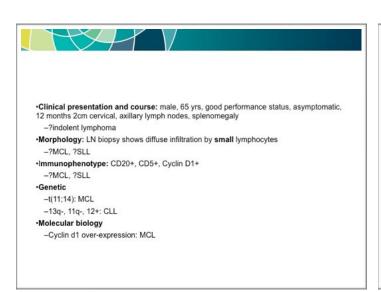


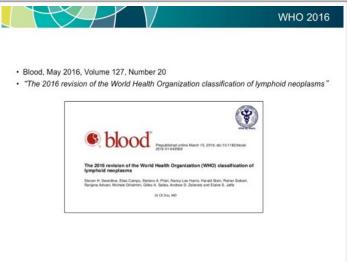


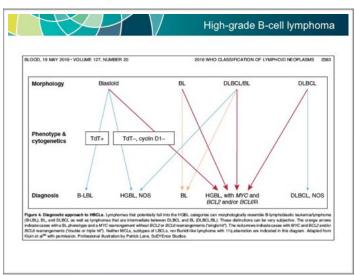


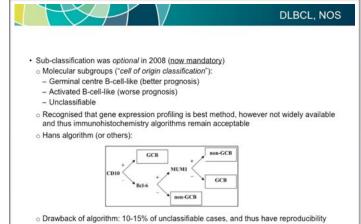




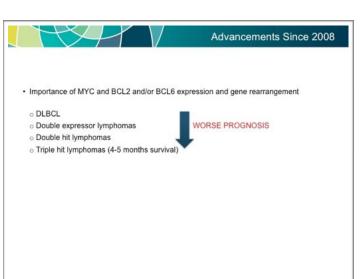


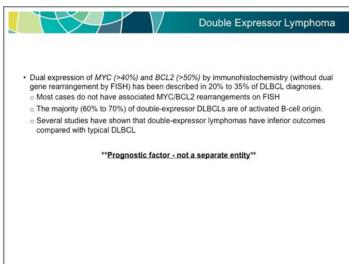


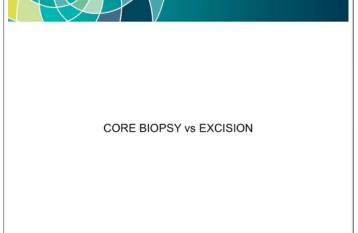


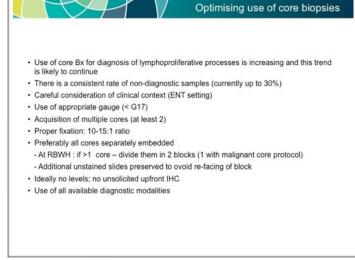


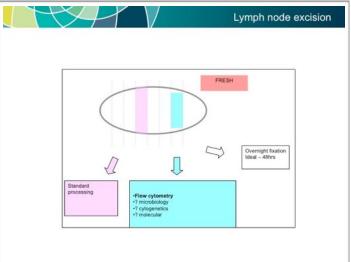
issues, and uncertain prognostic utility

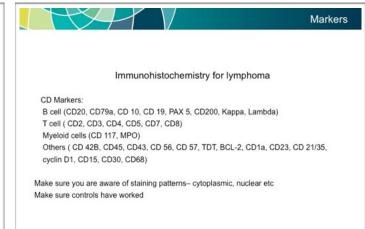


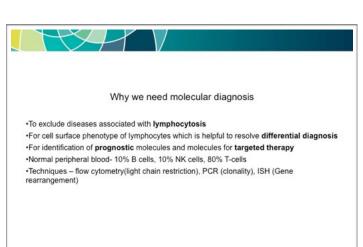


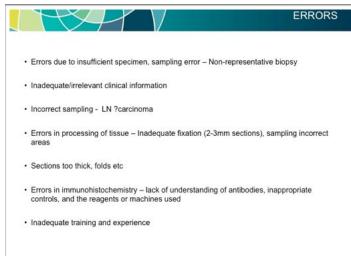


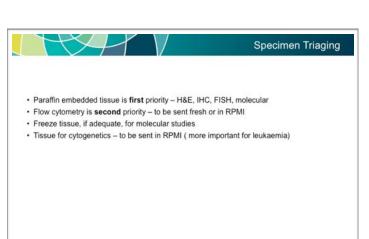


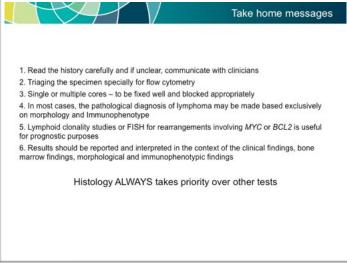














2100 ANTIGEN RETRIEVER



The solution for antigen unmasking

This is an **affordable** solution to many common problems with immunohistochemistry on paraffin sections. **Ease of use** combined with high reproducibility of the results will give you the best quality immunostaining. The Retriever is a bench-top model for thermally processing slides of formalin-fixed paraffin embedded tissues prior to immunostaining.

How does the Retriever work?

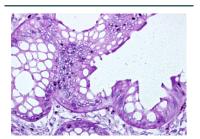
In contrast to many other "pressure-cookers" or microwaves it allows **proper recovery of epitopes** on formalin-fixed (routine pathology sections) while **preserving tissue morphology** and always giving you the same **quality** and degree of fixed tissue recovery. A chip on-board the machine controls the profile of heating, pressure and the length of the cycle optimal for most of the routine formalin-fixed, paraffin embedded tissues.

With Retriever you can:

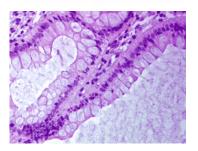
- Run antigen unmasking in up to 6 different buffers in one cycle.
- Recover the epitope of interest while preserving the tissue and cell morphology.
- Get identical results every time.

For Research Use Only





Processing the tissue in microwave-type machines results in damage to the morphology of the gentler tissues.



No damage to morphology occurs after processing the tissue in the Aptum Retriever and unmasking of antigens is improved.

Simplicity Reliability Reproducibility

Distributed by Diagnostic Technology
For ordering contact:
admin@diagnostictechnology.com.au
Suite 45, 7 Narabang Way, Belrose
NSW, 2085 Toll Free: 1 800 803 950
Telephone: +61(0)2 9986 2011
New Zealand Telephone: +64(0)800
445 532
www.diagnostictechnology.com.au

Wide Bay Scientific Group Conference Surfair Marcoola Beach – 16 to 18 March



Speaker announcement

Register online at

http://Tinyurl.com/WBSG2018-rego

The following speakers and topics have been confirmed.

Topic	Presenter
A Northern Territory perspective	Michael Lynch - NT Pathology
"A Weekend With Bernie's" – major surgery on a	
Bernard Soulier Syndrome patient over a long weekend	Neil Dawson - PQ Toowoomba
at a regional hospital.	
Volunteering in remote/exotic locations	Sandie Safton
Managing pre-analytical pathology errors	David Porter - PQ Townsville
Coagulation in Ageing	Robyn Coleman – SNP Brisbane
The immunology of a putative dual vaccine against	Leanne Dooley - SQU Toowoomba
Hepatitis B virus and Streptococcus pyogenes	
Transfusion practice in older adults	Geoff Simon – USC
Immunohistochemistry – the Shakespeare of Medicine	Elizabeth Zemek - PQ SCUH
Troponin false positives	Alison Hall - PQ SCUH
Suspected Willy Deficiency for Heart Broken Man	Billy Vincent - PQ TPCH
Haematology case studies	Lyndall Dial – QML Brisbane
C.diptheriae case study	Dean Johns – PQ SCUH
Acquired haemophilia: A Case Study	Alex Unterburger - PQ Grad Scientist
C perfringens intravascular haemolysis: A case study	Katie Buzacott + micro + chem + haem
	presenters – PQ SCUH

The organising committee are working on finalising the program.

Workshops – two high quality workshops have been arranged for Saturday morning, before the scientific program commences (see details on next page).

Networking and social activities – please book with registration.

<u>Friday evening</u> - we will meet at the Surfair Hotel, on the conference site. Delegates can order and pay for food and drinks individually at their leisure. The kitchen will be open until around 9:00 pm.

Saturday morning optional activities include surf lessons (6-8:00 am \$45/person) and yoga on the beach (6:30-7:30 am \$20/person). Minimum and maximum numbers apply.

"There's more to me than Histology"

Chris Cazier - Senior Technician - QUT Histopathology

"I would have to

say PIZZA, good for

1 - How long have you worked in histology and have you worked in any other labs?

After graduation, I started as Histo/Biochem/ Haematology technician for the University of Queensland Vet School. I spent the next 18 years conducting Histological diagnostic and research for Veterinary Pathology, UQ. In 2016, I resigned as the Supervisor of Histology, Anatomy and Post Mortem Facilities (UQ Gatton) to undertake the senior position at QUT responsible for the Histology Practical Classes.

2 - What is a skill you're good at that not many people know about?

Ooh, tough question,....hmmm I'd say Procrastinating went it comes to Home renovations.

3 - What was your first paid job and what did you like most about it?

First paid job was as a gardener for an elderly lady who loved to sit behind me and criticized everything I was doing. It didn't take me long to figure out why my friend palmed the job onto me. Quitting was my favorite part of that job.

4 - What do you like doing in your free time?

Not terrible mature of me but I love playing computer games, particularly Playstation 4, first person shooter games.

5 - What is your all-time favourite movie, tv show and song?

All-time favorite movie would be Predator with Arnie, saw that about 5 times in cinemas when it first came out. Tv show/s, contentious choice here but I would have say any lowbrow reality show that involves youths making a fool of themselves. I would provide examples here but I would be expelled from HGQ.

I'm not a massive music lover or should I say into any particular genre, but the 80s where pretty cool. I guess Ice Ice Baby (Vanilla Ice) will

(Vanilla Ice) wi always be special to me as it was played at my wedding (as a joke) when my wife and I entered the reception room.



All Images courtesy of Chris Cazier

6 - What food best describes your personality?

I would have to say PIZZA, good for in any situation,...LOL

7 - Describe a "perfect day" when you're on your monthly Rostered Day Off (RDO)?

Definitely offshore fishing with my Dad and or the family

8 - If you decided to change your career, what would you do?

About 12 years ago I tried to do a career

change,.....Firefighter! I easily got through all the physicals and aptitude testings and even got a couple of interviews, but obviously unsuccessful. I could not complete against, ex police, army and paramedics that were all switching over.



9 - What three events/people/experiences made the biggest impact on who you are today?

Firstly,...family,...especially my Dad, seeing how he worked hard as Chef, coming to Australia with nothing and now even when retired still works harder than me,....or am I just lazy,.....Hmm? Secondly,...My first Histology Job in a 2 person lab, more specifically, the Histology manager that never tied to help or mentor me. This forced me to learn and optimize all the lab specials stains by myself. Steep learning curve straight out of uni but with the use of the internet, journals and text books plus a lot of trial and error. I learnt quickly as a result my manager was released and I was promoted after 2 years as manager. Thirdly,...I would say getting my current job

at QUT in the City. Career wise it is step back in but quality of life has increased dramatically. Now I don't need to travel 100km

> each way to Gatton a day,...YAY

10. If you could choose one superpower, what would it be and why?
Easy,.....time travel!





Designer software for your pathology workflow

- Eliminate the risk of error with bar-code driven, single-piece workflow, enabling full traceability of every specimen and item.
- Complete interfacing to cassette writers, slide writers, label printers and auto-stainers.
- Advanced pathology reporting with integrated RCPA reporting protocols.
- Meets all Australian standards and billing requirements.
- Improve customer service and quality with optional electronic orders module and online/ mobile access to histopathology reports.



Garrick Wilson M: 0432 273 550 E: wilson.garrick@sysmex.com.au

www.sysmex.com.au



What's new with the HGQ?

Upcoming Events

March 2018

 Other - Wide Bay Scientific Group - Conference 16-18 MAR - Marcoola, QLD

April 2018

- * Newsletter Tissue Paper
- National Histology Group Logo Competition Date & Details TBA
- Other Diagnostic IHC 6th International Workshop 27-29 APR - Tweed Heads, NSW

May 2018

* Scientific Meeting - TBA

June 2018

Social Event - Trivia Night
 22 or 29 JUN - Venue TBA

July 2018

Newsletter - Tissue Paper

August 2018

Scientific Meeting - Joint AIMS/HGQ
 23 AUG - Venue TBA

September 2018

- Workshop Practical
 Date & Venue TBA
- Other National Society of Histotechnology Annual Conference 21-26 SEP - Saint Louis, Missouri, USA

October 2018

- Newsletter Tissue Paper
- Scientific Meeting & AGM TBA
- Other Histotechnology Society of NSW State Conference
 5-7 OCT- Rooty Hill, NSW

November 2018

* Social Event - TBA

May 2019

National Histology Conference
 Date & Venue TBA - Adelaide, SA













Images courtesy of Jerres Alcober