



Sullivan Nicolaides Pathology - Central Lab - Bowen Hills, QLD - Dissection Area

Tissue Paper

"Bridging Histology Laboratories since 1982"

President's Report

Jerres Alcober



Welcome to the 1st edition of the Tissue Paper in 2017. 2016 provided our members with many educational and networking meetings. It was a pleasure collaborating with our respective histology societies interstate and like-minded associations from other disciplines. These events were supported by our trade which also assisted in the HGQ's vision to provide professional development opportunities to our members. The HGQ look forward to working with these groups and others in 2017 to do it again "bigger and better".

The HGQ committee have started planning the year with 3 scientific meetings, 1 social event (Trivia Night), AGM & 3 Tissue Paper editions already on the calendar. The long-awaited HGQ Trivia Night is now a reality!! FRI 16th JUN at the Normanby Hotel is where history will be written. Become the champion you dreamed you would be - a Trivia Night champion!! Book your group through our website by Fri 19 May to secure your table.

Later this year, the 8th National Histology Conference (NHC) will be held on 17-19 November 2017 at the Hotel Grand Chancellor -Hobart, TAS. This conference is a joint venture with all respective histology groups across Australia spear-headed by the HGV. The 2017 HGQ committee are excited to be working with all groups to make the 8th NHC an event that is talked about in the coming years.

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 - Jerres Alcober

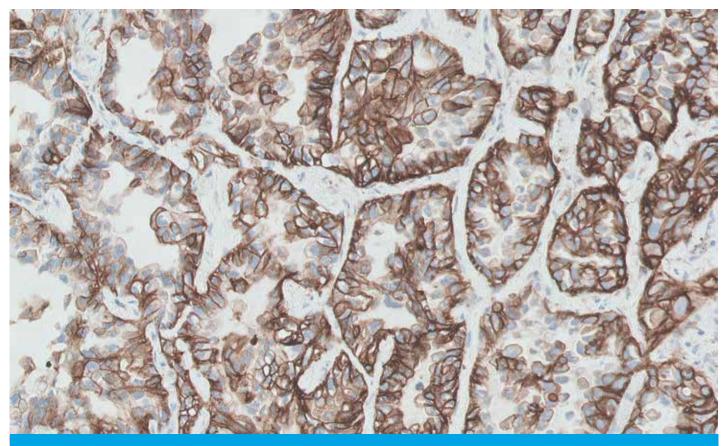
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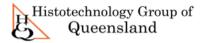
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Brett Harrison - Trade

Lloyd Blundell - Trade



Secretarial Report - Amanda Marsden

I just like to start by welcoming everyone back, new and old members, for another exciting year. 2017 promises to be a big year for HGQ. But first let me introduce myself. My name is Amanda Marsden, and I work as a Scientist in Histology at Princess Alexandra Hospital. I am very excited to take on the role a Secretary for 2017 and would like to give a warm thank you to the outgoing Secretary Michael Staunton. We have already had our first scientific meeting for 2017. A very



successful turn out with over 65 attendees. I would like to congratulate Sullivan Nicolaides Pathology for wonderful evening and for allowing us to take a tour of the new laboratory at Bowen Hills. A special thank you to Ted Ditchmen with his talk "The Big Move: Taringa to Bowen Hills" both entertaining and informative. I would also like to thank Kellie Vukovic, Brett Harrison and Leica Biosystems . Keep an eye out on the calendar for the next Scientific Meeting to be held later this year. Something not to be missed will be the social event, Trivia Night, to be held on 16th June at the Normanby Hotel. It is sure to be an entertaining evening. Registration is now open. Also not to be later on this year will the National Histology Conference to be held in Hobart 17-19th November. To find out more log onto <u>http://</u> <u>www.nationalhistologyconference.com</u>. Make sure you keep up to date with the HGQ by registering your details on our website (it's easy and best of all, free) and keep an eye out for updates and announcements. I strongly encourage everyone to register.

Publication Guidelines

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Please forward submissions in Microsoft Word or compatible program either via email and/or CD & DVD. For any attached photos, please also include these in a separate file. Include your name and address if required. Submissions can be in the form of a brief note, letter or as a complete article.

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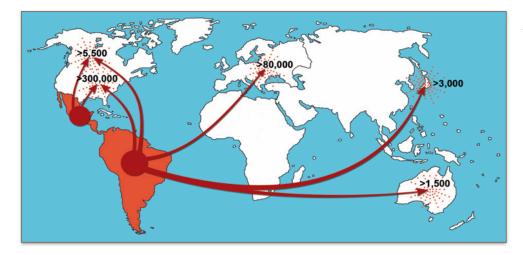
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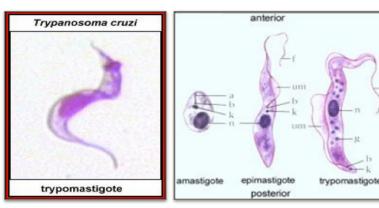
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Chagas Disease - A recent case study: *Presentation summary* - *Wide Bay Scientific Conference - February 2017* Billy Vincent (Haematology) & Anthony van Zwieten (Anatomical Pathology) Pathology QLD - The Prince Charles Hospital, Brisbane



Background: Chagas disease is a parasitic infection caused by *Trypanosoma cruzi*. Chagas is Endemic in Latin America affecting 10 million people with a mortality rate of 14000 people per year

The organism: Genus *Trypanosoma* and Genus Leishmania are unicellular flagellate protozoa that affect a wide range of hosts. The three main human diseases are South American Trypanosomiasis (Chagas disease), African Trypanosomiasis (sleeping disease caused by *T.brucei*) and Leishmaniasis (various species). The parasite exists as three separate forms (see far right image).

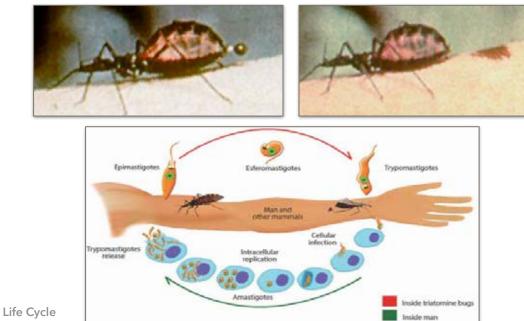




Disease Transmission: Transmitted by infected organisms called Triatomines. Also known as the Kissing, Assassin and Vampire bug. Consequential transmission via Blood Transfusion, Organ Transplantation, Congenitally and Food and Drink (very rare). The disease cannot be transmitted by casual contact between people.

Photos in this article courtesy of Anthony van Zwieten & Billy Vincent

Interesting fact: After the kissing bug bites, it defaecates. The parasites that cause Chagas disease are present in the bugs faeces. People will usually scratch the bite and when this happens, a small amount of the bug's faeces, along with the parasites, enter the bloodstream.



Disease Progression: Acute phase lasts 4 to 8 weeks as an asymptomatic or mild illness. The chronic phase is indeterminate and can be asymptomatic for years or decades and only 30% of cases become symptomatic. Symptomatic patient scan have gastrointestinal manifestations, cardiac disease followed by aneurysm and thrombus formation leading to increased risk of stroke. Chagas disease can be life threatening in both the acute and chronic phases.



Romaña's sign, the swelling of the child's eyelid, is a marker of acute Chagas disease. The swelling is due to bug feces being accidentally rubbed into the eye, or because the bite wound was on the same side of the child's face as the swelling.



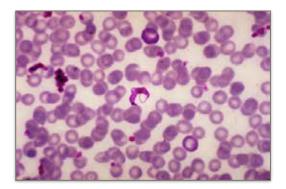
Cardiac Ventricular cup dilation



Megacolon due to swelling

Diagnosis: Made by Microscopic exam of fresh anticoagulated blood or its buffy coat for motile parasites (right image). Various immunoassays can be performed which include: Detecting complement fixation, Indirect haemagglutination, Indirect fluorescence, Radioimmunoassay, ELISA, and PCR.

Prevention: No vaccine available which means that vector control is best method available as with other diseases like Malaria, Ross River and Dengue fever. With regards to blood transfusion and organ transplantation, the following measures need to be strictly followed:



Screening of blood donors, testing organ tissue of donor and recipient, Screening newborns of infected mothers and also sibling/s of infected children

Concerns in Australia and New Zealand: Chagas is emerging in non-endemic areas due to international migration. Australia had 1928 cases in 2011 and native wildlife are known to be infected with various species of *Trypanosoma*. From 1997 to 2011 Australia had a 46% increase of people born in endemic areas, The ARCBS excludes donors based on a questionaire only. The disease is likely to spread further leading to a significant economic burden

Source: 'Chagas disease in Australia and New Zealand risks and needs for public health interventions' Yves Jackson, Angie Pinto and Sarah Pett, Journal of Tropical Medicine and International Health 2013.

Chronic Chagas' Cardiomyopathy (CCC) - Histopathology

Higuchi et al. (2003)

Macroscopic features





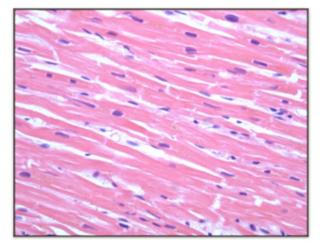


Dilation

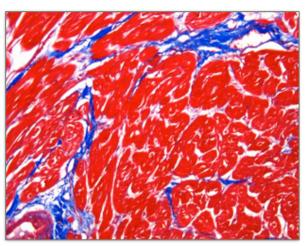


Fibrosis

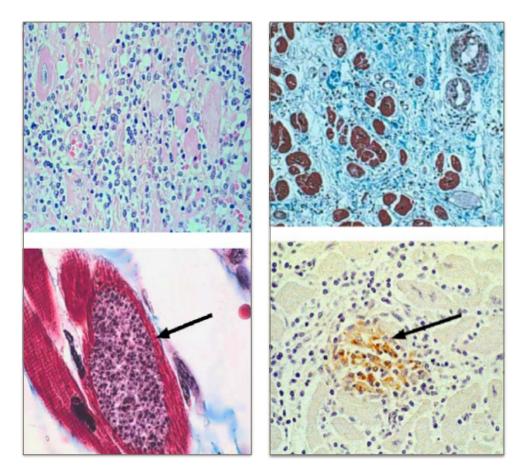
Microscopic features







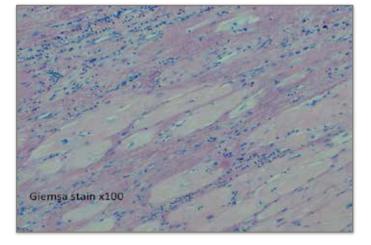
Masson Trichrome



Top Left: Marked lymphocytosis in heart tissue; Top Right: Masson Trichrome staining demonstrating chronic fibrosis (blue) displacing cardiac muscle (red); Bottom Left: Amastigote of T.cruzi within cardiac muscle fibre; Bottom Right: T.cruzi IHC staining of parasitic antigens

A Recent Case Study

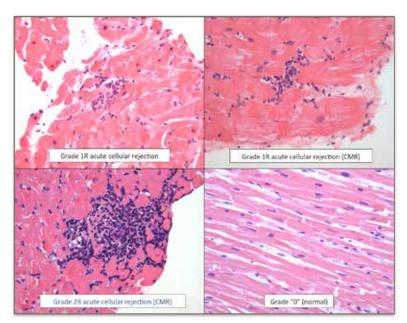
- 54 y/o male (Immigrated from South America) presents at PAH in Brisbane in May 2014 with epigastric pain
 - * Gastric Biopsy showed minor superficial gastritis with normal cardiac function
- Patient first seen at TPCH in Brisbane March 2016
 - Known cardiomyopathy with mildly increased Btype natiuretic peptide (BNP - which can indicate heart failure) and dilated cup of the heart



Patient Explant Heart (Note lymphocytosis and fibrosis)

• 2 weeks later patient is on the heart transplant recipient list with markedly increased Faecal Occult Blood

Where are the parasites? They are not always present in Chronic infections and also histological sampling at cut up means not all of the tissue is examined microscopically.



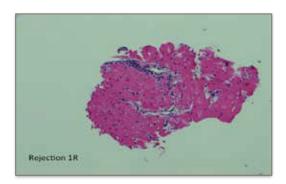
Patient experiences more pathology

Patient transplant heart tissue is biopsied as part of normal surveillance protocol

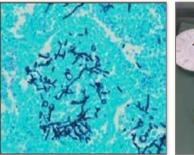
1, 2, 3, 4, 6 weeks, 2, 6 & 12 months (Or if patient is sick/has drop in heart function)

Grades of rejection (see left as indicated by presence of lymphocytic infiltrates)

Patient Transplant Biopsy Week 4 (below)



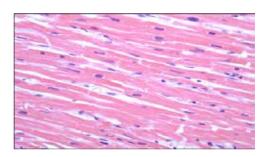
• Fungal abscess in skin - immunocompromised state (Grocott's stain (Bottom Left) & fungal vegetation (Bottom Right)





Patient biopsy week 20

• No rejection of heart post transplant (Right)



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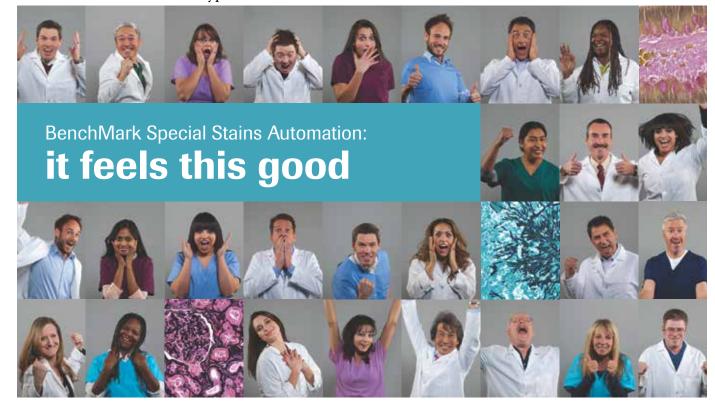
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Your Invitation to Attend

November 17th – 19th 2017

The organising committee invites delegates, presenters and trade representatives to Hobart for the 8th National Histology Conference, and the first upon Tasmanian soil.

Delegates will experience a range of workshops and plenary sessions designed to provide continuing professional development in histology, showcase modern equipment and consumables and experience a little of what Hobart and Tasmania has to offer.

Registration

Early registration closes 16 August 2017

Full Registration

AUD\$450 – Early AUD\$590 – Early + Dinner AUD\$550 – Standard AUD\$690 – Standard + Dinner

Student Registrations

AUD\$150 – Student

Day Registrations

Saturday or Sunday AUD\$270 – Early Saturday AUD\$180 – Early Sunday AUD\$320 – Standard Saturday AUD\$230 – Standard Sunday AUD\$100 – Student Saturday AUD\$75 – Student Sunday

Keynote Speakers

See the website for full biographies and topics



Professor Allen Chan The Chinese University of Hong Kong



Professor Kevin Spring Western Sydney University

Submit an Abstract

Submission of abstracts for Oral Presentations and Workshops close 30th April.

Poster submissions are still welcome. Submit via the presentation portal on the conference website.

Workshops

Friday 17th November - \$95 each

AM

- Tissue recognition The Basics Dr Tayiba Tayiba
- Pathology of Surgical Cut-up Dr Ros Malley

ΡM

- Tissue recognition The weird, the wonderful and the wacky Dr Nada Dickinson
- Perfecting the GRAM stain Members of the Anatomical Pathology Quality Assurance Program and Technical Committee Members

Social

Self Tour of MONA Friday 1-5pm AUD\$22 – Ferry (museum entry AUD\$28)

Conference Dinner Sat 6.30 - late Glen Albyn Estate \$140



Please visit the conference website for more information www.nationalhistologyconference.com

Conference Design | mail@conferencedesign.com.au

"Roaming Reporter - The Move to Bowen Hills" Scientific Meeting - SNP Central - Bowen Hills, QLD Kellie Vukovic - SNP - Central Lab





The HGQ's first Scientific meeting of the year proved to be a huge success with over 60 people attending the talk given by Scientist in Charge Ted Ditchmen at the new Bowen Hills Laboratory.

The presentation began with a brief history of Bowen Hills itself and then moved on to discuss the challenges associated with merging two labs together. The move for the Indooroopilly Skin lab and the main Taringa Lab was scheduled a week apart in the busiest time of the year (late October), which proved to be a challenge in

itself. As well as overseeing all the aspects involved in such a big move SNP introduced a new lab tracking system, automated embedding and rapid processing all at the same time.

To be ready for the move, the new Bowen Hills lab was set up with four complex and eight non-complex dissection bays that were fully operational. The lab was also set up with eight embedding and microtomy stations, three stainers and coverslippers, two microtomy stations for IHC and all Pathologist microscopes were transported fully assembled. On the day of the move the Taringa lab operated normally on the Friday until 3am on the Saturday morning. The lab was fully moved by 3pm the same Saturday and the Bowen hills lab was fully functional by 12pm Sunday.

SNP Bowen Hills is now the largest lab in Australia with state of the art equipment. The lab is using the first microwave assisted rapid tissue processors, is currently working on the first automated embedding systems, has integrated an LIS tracking system and has launched whole slide imagining from remote access. In terms of work load, the lab has already reached over 100,000 cases for the year and is estimated to hit 350,000 by the end of 2017.

The current Bowen Hills lab set up includes 136 workstations with PC's, 10 accessioning stations, 22 dissection bays, 8 embedding stations, 16 microtomy stations and 3 allocation benches. The IHC and special stains area has 12 staining machines, 4 microtomy stations and 3 workflow benches. The night concluded with a walk through tour of the Histology Lab which everyone was most interested in.

Photos in this article courtesy of Kellie Vukovic















Main Lab

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The HGQ Newsletter

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"There's more to me than Histology" Evance Oluoch - Scientist Pathology QLD - The Prince Charles Hospital

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

I have worked in histology for 4 years now, started off at Healthscope pathology for 1 year then to Prince Charles.

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

It would be bargaining the price of something, maybe to half the price of what its supposed to cost.

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

My first paid job was as a high school tutor for

mathematics at Helensvale state school, the thing I liked about it was that I could help young members of our community.

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

In my free time, I would either be watching basketball or playing basketball and spend some quality time with my friends and family.

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

Well there is a lot of movies that I like but my all time favourite(s) would be Bad Boys 2 ,Love and basketball and Training Day.

Tv show would say Real Husbands of Hollywood and best song is Daughters by NAS.





6. What food best describes your personality? Any spicy food, I can be a handful sometimes.

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

A nice breakfast at a café somewhere with my girlfriend and baby boy. Then drop son to daycare followed by basketball training, then gym session. Get back home for lunch then watch a movie or sports, well mostly basketball then pick little man up and take him to the park. And finally cap it all up with a nice home cooked dinner.

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

I would love to own my own business supplying fitness gears.

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

One of the most important one would be growing up in

Kenya, taught me how to embrace life a little bit more. The second would be my family especially my mum, then my son who has taught me how to be patient and how to be a dad.

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

Healing powers so I could help ease the pain of those suffering from serious illnesses.



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Tissue Paper - Volume 40





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TRIVIA NIGHT 2017

Date: Friday 16th June

Time: 6.30pm-10.30pm

Location:

The Normanby Hotel Bovine Room 1 Musgrave Road Red Hill QLD 4059

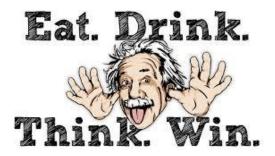
Price: \$30 per person (Tables of 10)

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

Additional drinks at bar prices.

Payment due by <u>Friday 19th May</u>. Please be quick as tables are limited and sold on a first in best dressed basis!

Limited parking is available at the venue







HGQ TRIVIA NIGHT 2017

PAYMENT DETAILS PLEASE RETURN THIS SLIP WITH YOUR GROUP PAYMENT

Email: kellie_vukovic@hotmail.com

Mail: Attention: Kellie Vukovic Sullivan Nicolaides Pathology Histology Department 24 Hurworth Street Bowen Hills QLD

Cheque/Money Order (please make out to 'Histology Group of Queensland')

Direct deposit (please leave 'Trivia- Name' as a reference)

Account Name: Histology Group of Queensland BSB: 084 009 Account no.: 198048439

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

Name of Institution:

Contact Name: _____

Contact Number: _____

Contact Email:

Number of people on table (Max 10):