Histology Group of Victoria Inc.

Org. No. A0035235F

PARAFFINALIA

http://www.hgv.org.au
Volume 14 Number 2
April 2009

Contents

Editor: Neil O'Callaghan

"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:

The members of the Histology Group of Victoria 2008-2009 committee are:

Name	Institution	Phone
Boyd, Allison	St Vincents Hospital	9288 4288
Brincat, Judy	Dorevitch Pathology	9244 0354
Chavez, Maria	Monash Medical Centre	9594 3493
Davies, Simon	Leica Biosystems	9211 7400
Elizabeth Baranyia	Cabrini Health	9508 1263
Mark Bromley	Melbourne Pathology	9287 7806
Michelle Zammit	The Alfred	9076 3088
Nguyen-Hoang, Nguyen	Peter MacCallum Cancer Centre	9656 1844
O'Callaghan, Neil	TissuPath	9815 1588
Phefley, Sean	Victorian Cytology Services	9250 0300
Skehan, Cameron	Monash Medical Centre	9594 3493
Warmington, Adrian	St John of God Pathology (East)	5320 1171

Please feel free to contact any of the committee members listed above with any comments or suggestions. Contributions from readers are always welcome.

Advertising:

All enquiries for advertising in the next edition, please contact:
Neil O'Callaghan
trade@hgv.org.au
Ph: (03) 98151588
Fax: (03) 9819 9250
Advertising for the next editions of Paraffinalia closes: 15th May 2009.

Advertising rates:

- Single Sided A4 Black and White $200
- Double Sided A4 Black and White $325
- Color Insert (Supplied by company) $325

PLEASE DO NOT POST ADVERTISEMENTS TO THE COLLINGWOOD MAIL BOX

Submissions:

Author enquiries and readers wishing to contribute articles or reports can contact the Editor – Neil O'Callaghan (98151588), email: editor@hgv.org.au or post directly to

The Histology Group of Victoria Inc.
P.O. Box 1461
Collingwood
Victoria 3066
Australia

Please send articles on floppy-disc (preferably Microsoft Word format) for inclusion in the next edition.
All articles submitted for publication will then become the sole property of the Histology Group of Victoria

Disclaimer:

Any opinions expressed in this publication are solely those of the contributing author and are not necessarily reflective of the Histology Group of Victoria or the editor.

NOTE: No responsibility is assumed by the Histology Group of Victoria for any injury and/or damage to persons or property as a matter of products liability, negligence or otherwise, or from any use or operation of any methods, products, instructions or ideas contained in the material herein. It is the users responsibility to ensure that all procedures are carried out according to appropriate Health and Safety requirements.

From The Chair: A Blurb from the Bush

The National Meeting is nearly upon us, I hope to see many Victorians gracing the Adelaide town. I hear Histologists are much more welcoming than Crows supporters, so if you're bringing your car you should be leaving with both mirrors. There is still time to register, the immunohistochemistry workshop is full to capacity, but places are still available in the surgical cut-up workshop.

The HGV scientific meeting in March was very successful again combined with the ASC. There were some very interesting case studies presented both in Histology and Cytology. Our next scientific meeting is a discussion on the results of the ABPAS QAP, which everyone should have participated in last year. This is a chance to discover what's good and what's not and how to make some improvements.

The trivia night will be back this year, closer to the CBD. Organization is well underway, but be warned that the venue is slightly smaller this year, so it will be a first in best dressed policy when booking tables.

Plans are underway to conduct a one-day seminar in Melbourne in March 2010. Details regarding exact date and venue and program will be revealed in the next edition. The HGV will be striving to deliver a low cost quality Histology program to enable it to be accessible to as many Histologists as possible. Trade will also be accommodated, again with details regarding booths to be announced soon.

The HGV has been contacted by RMIT, the main supplier of our trained Histologists, endeavouring to obtain some paraffin blocks with diseased tissue that can be diagnosed with special stains. If anyone has de-identified blocks that they can spare and some clinical notes to match, they would be greatly appreciated. They can be passed directly to Janine Danks at RMIT. Contact a committee member for address details. Please make an effort to assist, as we really do want our future scientists receiving the best training they can prior to hitting the workplace.

Adrian Warmington
HGV President

Histochat:

HGV Inc. has introduced a bulletin board style discussion forum to their website - www.hgv.org.au. We hope this bulletin board "Histochat" will become a forum for the open exchange of information and ideas within the histology community.

Registration is required, as is email authentication, to access *Histochat*. No subscription fees are required and email addresses are used for correspondence and verification only. Registration is open to all. Students and junior staff are encouraged to participate. Free email clients such as hotmail may treat your authentication email as SPAM or JUNK MAIL, please check these folders if your authentication email does not arrive promptly. Authentication email needs to be responded to within 24 hours of registration. To those with online forum experience navigation should be relatively straight forward.

For those who need a little guidance YaBB have put together a step by step guide at www.yabbforum.com. Click on the "**Get Support"** link then click on "**Yabb Integrated Help**" There's no direct link on our web site as Yabb block direct linking to their help pages.

The forum layout is shown below:

There are a few broad forum topics. It's up to you to expand on them, ask questions, answer questions or just tell us your ideas. You can even upload images to assist with your discussions.

Sean Phefley, HGV IT Support

Conference Report:

Introduction to the mortuary and the autopsy: 1 day short Course, Department of Forensic medicine, Glebe, NSW.

By Maria Chavez

This workshop was held as part of the RCPA 2009 Pathology Update which occurred in Sydney on March 13 to 15th. The course, aimed for pathology registrars and or technicians working in hospital or forensic centre mortuaries, covered a range of topics which included how to conduct an adult and perinatal post mortem examination, with a focus on heart and brain examination, legislation, OHS and concluded with a tutorial on how to approach the 'in vivas' examination.

Dr Clive Cooke commenced the session with a brief history lesson of the evolution of the post mortem examination (PME) and the contribution the great forefathers of pathology Prof. Karl Rokitansky and Rudolph Virchow made to pathology. Dr. Cooke listed the differences of a coroners and hospital PME, stating that the Coroners PME is the 'first investigation' in a possible medico legal case, compared to a hospital PME which is the 'final investigation' aimed to determine the extent of disease and or response to therapy.

Dr. Cooke emphasised that the rate of hospital PME in Australia is declining particularly due to the range of molecular tests available today. Clinicians may be reluctant to ask the next of kin and don't favour the timeliness of PME's. Unfortunately, this is limiting the training and experience of future pathologists.

Next, the attendees scrubbed up to get a close look at an adult PME, performed by A/prof Jo Duflou. There are two different technical approaches to performing a PME, '*en bloc* removal and examination of the organs and or individual organ removal and examination. A/prof Duflou demonstrated the *en bloc* removal method. This appeared to be a quick and neat approach. His advice when conducting a complete PME, start with the brain if you suspect anything unusual, and always take the pituitary gland. Once you have removed the block, check all vessels (ureters, portal veins etc). Look at everything. 'the most common mistake of pathologists isnt' not knowing, it's not looking'.

Dr.Michael Rodriguez and Dr. Cooke provided a detailed presentation on how to examine a brain specimen that has been fixed and one that is unfixed, and explained the advantages and disadvantages of both in relation to neuropathological findings. In his presentation, Dr. Rodriguez demonstrated the routine blocks he submits for processing, and also provided notes on special stains and how to report the macroscopic and microscopic findings.

Knowledge of normal histology of the organs at different gestational periods, as well as the maternal medical history is of critical importance when performing a fetal/perinatal autopsy. Dr Diane Payton spoke on the topic and provided information on the relevance of ancillary investigations (chromosomal studies, microbiology, biochemistry tests) and what should be included in the report.

Perhaps the most humorous part of the day was Dr. Neil Langlois's presentation on the examination of the heart. Dr Langlois had an excess of 100 slides to show but still managed to get through all of them in his allocated half hour. A detailed presentation, to say the least, and don't forget to deactivate and remove the heart pacer at autopsy, to avoid the nasty shock or better still an explosion at the crematorium ☺

Occupational health and safety and legislation were also covered in the workshop. However as the legislation and documentation that is required varies according to State, it is advised that all professionals conducting PME, read and become familiar with the legislation. Each hospital/ mortuary should also have their own protocols to ensure OHS.

I thoroughly enjoyed this short course and found it extremely helpful for someone who is at the beginning of their training. Each participant was also provided with a handbook which included notes and or presentations on all of the topics covered as well as recommended reading material for those who wish to learn more.

Would you like to get fast updates for Histology

- ***Positions vacant***
- ***Conference registration***
- ***Scientific meeting reminders***

The HGV members email database is the way to go!

Simply email your name and email address to membership@hgv.org.au

No trade or other advertising will come your way – strictly HGV or HGV sponsored events

Have Your Say:

The HGV would love to hear from you and let you have your say! Email your thoughts to editor@hgv.org.au along with your name or pseudonym, as we would like to publish some of your issues or responses in our forth coming editions. Or pose a question, what would you would like see discussed.

Editor

Intermediate
Cut Up Workshop 2

Histology Group of Victoria Inc.

2nd July 2009

Michael Chamberlain Lecture Theatre
St Vincents Hospital
Victoria Parade East Melbourne

Program
This is the second of many workshops aimed to educate our members in some of the specimens classified as "**non complex**".

Session One 6.30 pm to 7.15 pm
This session will cover the theory and practices behind the description, protocols and dissection of lymphoid tissue, with reference to the associated testing. Presented by Dr Stephen Lade, Peter Mac.

Refreshments 7.15 to 7.35

Session Two 7.35 to 8.20
This session will cover the description, protocols techniques and challenges that surround cervical tissue(including LLETZ, Loops & Leeps), Currettings and POC's. Presented by Dr Stephen Chan, Dorevitch Pathology.

Registration is essential to secure a place at the workshop.

To Register

To secure a seat, for catering purposes and production of printed material it is essential to register for the intermediate Cut up Workshop.

Early Bird Registrations close: 5th June 2009. Cost $20
Final registrations by: 25th June 2009. Cost $25

Email Registrations Only

Please email membership@hgv.org.au including:-

1) Quote "Cut Up Workshop Registration"
2) Your name
3) Institution
4) Contact Number
5) Please indicate if you **do not** wish to receive other electronic information from the HGV.

The HGV will send you an invoice **after** you have emailed your registration. This will include payment instructions

Article Review:

Cancer – A Western Disease?

The World Health Organisations (WHO) cancer research arm, the International Agency for Research on Cancer (IARC), recently released the World Cancer Report 2008[1]. The report stated that 12.4 million new cases of cancer were diagnosed Worldwide in 2008 and 7.6 million cancer related deaths were recorded. The report also notes that 53% of new cases and 60% of deaths are occurring in developing countries.

In an article published on the HealthDay website in December[2] Dr. Otis Webb Brawley, chief medical officer of the American Cancer Society, noted "The burden of cancer is shifting from developed countries to developing nations… And with a growing and aging population, we must take steps to address this problem now." That population growth is expected to be 38% in developing countries compared to 4% in developed nations really drives this message home.

It has also been estimated that 40% of cancer deaths may be prevented by reducing tobacco use, improving diet, lowering alcohol consumption, eliminating workplace carcinogens and immunising against Hep B and HPV[3].

The WHO is driving the following initiatives:

- A tobacco treaty
- Global strategy on diet and physical exercise
- Comprehensive cervical cancer control

But they also believe that there are many barriers to carrying out these initiatives in low-resource countries, such as:

- Lack of scientific and epidemiological information to guide resource planning
- Lack of recognition of cancer as a major public health issue
- Health care personnel and infrastructure shortages
- Research viewed as a luxury in low-resource countries
- Loss of healthcare professionals to migration
- Social and cultural barriers to cancer care
- Poor resource allocation
- Lack of collaboration with other sectors and organizations
- Limited use of IT and other creative approaches

So is cancer a western disease? Not any more…

References:

1) World Cancer Report 2008, edited by Peter Boyle and Bernard Levin, published by the International Agency for Research on Cancer (2008).
2) http://www.healthday.com/Article.asp?AID=622125
3) The World Health Organization's Fight Against Cancer: Strategies That Prevent, Cure and Care, published by WHO (2007).

Simon Davies
Leica Microsystems

Meeting Review:

"A Series of Short Presentations"
Histology Group of Victoria & Australian Society of Cytology Scientific Meeting

Wacky Wilson's Disease
Haley Gunn (Melbourne Pathology)
Clinical Notes: 15 year old boy; suffering from malaise and fatigue for 2 weeks; has trouble speaking; weight loss
Histology Section: Microscopically, there is no normal liver tissue; there is necrosis, chronic inflammation and nuclei undergoing degenerative changes
Preliminary Diagnosis: There is disorganised architecture of liver tissue and fibrous tissue around the nodules. Could this be **Cirrhosis**? Need to confirm by performing special stains.
Special Stains Requested and their results:
Masson Trichrome: Positive for Cirrhosis
Reticulin Stain: Positive for Cirrhosis
Halls: Negative
Orcein: Positive for Copper
DIAGNOSIS: Wilson's Disease: It is the accumulation of copper in the tissue. There is abnormal filtration by the liver. Deposits copper in the eye, kidney, liver and can cause bone problems. It is a cytosomal recessive condition. Effects 1 in 40, 000. If the disease results in liver failure, patient must require a liver transplant to survive.
Diet Restrictions: Shellfish, mushrooms, nuts and chocolate have high levels of copper.

What's That Spot?
Janelle Preacher (Austin Hospital)
Clinical Notes: 42 year old male with a deep tan; the dermatologist excised a lesion present on his back.
H&E Section: Lymph node is abnormal. Nodules disordered. There is abnormal pigment which is intra-cytoplasmic. It is deposited around the outer periphery lymph node. Is this melanin pigment? Is this Melanoma?
Special Stains:
Masson Fontana: Melanin reducing solution. Positive.
Schmorls Ferric Ferricyanide: Convert ferri → ferrocyanide. Positive.
GMS: Black deposits against a green background. Positive.
Unstained Section: Pigment examined – colour, distribution and appearance
DIAGNOSIS: Melanoma. It is an aggressive disease with QLD having the highest incidence. Usually presents as deep brown to black lesions. Local spread on skin and often through the lymphatic system. It can metastasise to the liver, lung and brain.
Excision biopsies – important that all margins are clear of tumour.
Treatment: Surgery and then chemotherapy
Risk Factors: Increased age; Prolong sun exposure and genetics; fair skin individuals
Sign and Symptoms of Melanoma:
A – Asymmetry; **B** - Border Irregularity; **C** – Colour; **D** - Diameter
Melanin: It is an endogenous pigment. They are produced by melanocytes.
Other methods to identify melanin: DOPA – oxidase (immunohistochemistry method); Bleaching; Formaldehyde – induced Fluorescence (FIF);

By: Nguyen Nguyen (Peter MacCallum Cancer Centre)

Meeting Report:

A SERIES OF SHORT PRESENTATIONS

Investigation of Canine Mammary Carcinoma using Human Tumour Markers –*Viesha Kosciuk*

Viesha Kosciuk and a fellow student (Haley Gunn) were selected to take part in a research project with the support of both RMIT and Leica Microsystems. The project set to investigate the possibility of typing canine breast tumours by using commercially available, human-targeted tumour markers. The rationale behind this project was to explore the prevalence and break new grounds in veterinary pathology, and to help explore treatment options by researching the similarities and differences in disease between humans and canines.

Canine mammary cancer is the 2nd most common tumour in dogs, affecting 52% of female dogs. It is an idiopathic disease that is influenced by an increase in age, hormones, obesity and genetic predisposition.

The antibodies used in this study were ER, PR, HER2, p53 and p63. The project incorporated the use to formalin fixed canine test tissue, the BondMax automated immunostainer, dilution factors and pretreatment solutions provided by Leica MS, a protein blocker and positive and negative controls; human breast tissue was used as a positive control and canine skin tissue as a negative control.

A scoring scale system was used to assess the staining results; individuals from RMIT and Leica MS were used to participate in the assessment of the 20 test cases that were used in the project. The most impressive result was seen with HER2 which resulted in highly specific and intense staining in the canine breast tumour tissue, 82% of cases staining positive. 76% of cases were positive with p63. Unfortunately, no staining was seen in all cases tested against ER, PR and p53, although the controls did work, so in this instance there was no cross-reactivity between the human-targeted antibodies and canine tissue.

Further study is needed to test against specific breast tumour types. A larger test sample would be ideal in a future study to provide more accurate results, as only 20 cases were used in this study. Different antibody isoforms should be used (alpha and beta), or antibodies derived against canine antigens. The implications of such a related study could help in the treatment of canine breast cancer with human drugs such as herceptin and tamoxifen.

Reported by Michelle Zammit

1 MONTH TO GO !

REGISTRATIONS AVAILABLE UNTIL THE CONFERENCE WEEKEND

WORKSHOP 1 PLACES STILL AVAILABLE

WORKSHOP 2 SOLD OUT

VISIT THE WEBSITE

www.nhc.org.au

FOR REGISTRATION FORMS AND PROGRAM

Article Review:

Breast Cancer Metastasis Suppressor 1 (BRMS1) suppresses metastasis and correlates with improved patient survival in non-small cell lung cancer

Smith P, Liu Y, Siefert S, Moskaluk C, Petroni G, Jones D - Cancer letters 276 (2009) 196-203

This study was conducted because the authors identified that of all the cancer affecting both men and women in the United States, lung cancer is the most common. The poor prognosis for lung cancer patients (15% 5 year survival rate) is due to the majority of patients suffering loco-regionally advanced or distant metastasis upon initial presentation. Approximately 80% of lung cancer is non-small cell lung cancer (NSCLC). It is well accepted that a better understanding of the cell biology contributing to the development of metastatic movements of NSCLC is important in improving clinical outcomes.

The extensively studied metastasis suppressor gene, breast cancer suppressor gene 1 (BRMS1) is known to act as a metastasis suppressor in many solid tumors. BRMS1 was originally identified as such in breast cancer and melanoma cell lines where considerable overexpression was shown to suppress metastatic spread of the tumor to the patient's lungs whilst reduced expression of the disease correlated with reduced remission rate and survival.

A *metastatic suppressor gene* possesses the ability to suppress metastatic movement while having little or no affect on the primary tumor growth. These genes are distinctly different from *tumor suppressor genes* which suppress primary tumorigenesis or progression of the tumor mass.

With the knowledge that BRMS1 has the ability to suppress metastasis in multiple malignancies they asked the question "Could BRMS1 be used as a prognostic indicator for human non small cell lung cancer?"

The answer – most definitely.

By conducting *in vitro* and *in vivo* models, BRMS1 was shown to significantly decrease both NSCLC cell migration and invasion and a dramatically reduce the number of pulmonary and hepatic metastases. Protein and mRNA analysis of human NSCLC specimens demonstrated a robust decrease in tumor BRMS1 levels which correlated with worse clinical prognosis. Patients with pathologically confirmed nodal metastasis had lower levels of BRMS1 mRNA than patients with node-negative disease

All data collected from the study suggests not only that BRMS1 acted as a metastatic suppressor in NSCLC but also that the expression of BRMS1 in NSCLC had prognostic relevance as a predictor of survival with tumor loss of BRMS1 expression predicting a worse clinical prognosis.

Sarah Morabito – Dorevitch Pathology

From The QAP:

RCPA Quality Assurance Programs Pty Limited

Hi everyone.

We have well and truly raced out of the starting blocks as we already have two diagnostic surveys go out the door as well as the HER2 BRISH survey which has both a diagnostic and technical aspect to it. We do not however assess the staining of the slides in this particular survey, your chance for glory comes in the upcoming Immunohistochemical survey where slides are assessed for technical markers CEA and Ecadherin ;breast markers ER,PR, HER2 and HER2 BRISH: and lymphoma markers CD30 (Ber-H2) and ALK-1. This survey will be mailed out 29 April along with the second HER2 BRISH survey for pathologists.

Your slides for the first technical survey TM09-1 H&E Staining Exercise have been coming in to the office and the closing date is 3 April, so hopefully by the time you read this your slides are already here. This will be assessed by our fabulous Technical Committee in April, and the results are due in May.

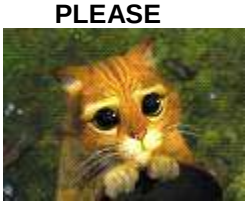
Diagnostic surveys that have been delivered and are now closed include Oral Pathology OR09-1 and Breast Pathology BR09-1. The General Pathology survey is due for mailout this week (1 April) so if you are the laboratory manager, supervisor and/or the main contact for QAP surveys keep an eye out for these slides soon. The first two surveys will consist of glass slide cases and the third and final survey will be in the form of virtual images on DVD and also available on the website.

30th April HGV Scientific Meeting - ABPAS Test and Teach Peter Mac

The QAP will be a guest at this upcoming HGV Scientific meeting conducting an informative session on the ABPAS stain as well as giving people the opportunity to have their slides reviewed and discussed.
If you have an interesting ABPAS slide or wish your slide to be reviewed or discussed, please bring along on the night.

Any donations for paraffin blocks of normal skin, and tonsil positive blocks would be appreciated. We are always interested in diagnostic cases as well. For diagnostic glass slide cases we usually require 5-6 blocks, and for interesting immunodiagnostic cases we require approximately 10 blocks.
Please send to Sonya Prasad or Erin Little, RCPA Quality Assurance Programs Pty Ltd Unit 3, 15-21 Huntingdale Rd Burwood. Vic 3125 Australia

PLEASE



Till next time…..

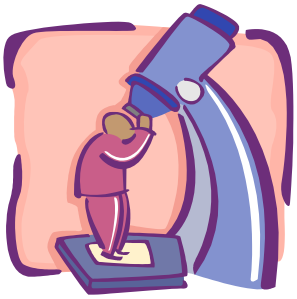
Authors: Sonya & Erin

Thanks

Erin and Sonya

Under the Microscope:

reported by Maria Chavez



Nick Jene
Grade 2 Scientist
Peter MacCallum Cancer Centre

1.What was your first job?
The first job I ever had was making and selling frozen chocolate coated bananas on a stick at Moomba and markets.

2. What attracted you to Histology?
Surprisingly there was a limited amount of money to be made in the frozen chocolate coated banana on a stick industry and histology seemed like the natural next step.

3 .What is the worst decision you have ever made?
I once wore a pair of my mother's pink and purple tie dyed jeans to school on a free dress day. It haunts me to this day.

4. What is the best decision you have ever made?
It's a toss up between getting my dog Ziggy from the RSPCA and moving into a house with my girlfriend. They are both pretty terrific.

5. Who would you most like to have dinner with and why?
I think I would like to have dinner with Iggy Pop because I have always been fascinated by how much of a complete nutcase he is. My only concern is that he would almost certainly be totally brain damaged.

6. What music do you enjoy listening to?
I went to the Patti Smith concert late last year and it was unbelievably good. So I have been listening to a lot of old Patti Smith.

7. What is your favourite stain?
I think it would definitely have to be PAS/D mainly because of the spitting.

8. What is your favourite food/Restaurant?
There is not much I won't eat (except frozen bananas) but I love seafood and I often go to Claypots in Fitzroy.

9. What are you reading at the moment?
Vernon God Little by DBC Pierre it is absolutely hilarious.

10. What is the best conference you have ever attended?
I am hoping it is going to be the one in Adelaide.

11. Are there any current projects you are working on at the moment?
We are currently looking into up grading our IHC instruments. Also we are working up a variety of double and triple stains.

Future Scientific Meetings: 2009

Histology Group of Victoria Inc.

5th March
~~Scientific Meeting – Series of Short Presentatior~~
~~Venue – PeterMac~~

30th April
Scientific Meeting – ABPAS Test and Teach
Venue – PeterMac
Speaker – Sonya Prasad RCPA QAP
If you have an interesting ABPAS slide or wish your slide to be reviewed or discussed, please bring along on the night.

8th – 10th May
4th National Histology Conference
Hosted by Histology Group of South Australia
Early Bird Registrations
www.nhc.org.au

4th June
Scientific Meeting – Tissue Processing
Venue – PeterMac

2nd July
Cut – Up Workshop
Venue – TBA

31st July
Social Event – Trivia Night
Venue – TBA

3rd September
Scientific Meeting – Liver Biopsy Scoring System
Venue – PeterMac

12th November
Scientific Meeting – New Antibodies & AGM

Next Scientific Meeting:

Histology Group of Victoria Inc.

Test and Teach
Alcian Blue/Periodic Acid-Schiff – ABPAS

If you have an interesting ABPAS slide or wish your slide to be reviewed or discussed, please bring along on the night.

Speakers:	**Erin Little – Quality Representative** **Sonya Prasad – Technical Manager** RCPA Quality Assurance Programs, Burwood
Date:	Thursday 30th April, 2009
Time:	6:00 – 6:45 Refreshments 6:45 – 7:30 Presentation
Venue:	Peter MacCallum Cancer Institute 7 St. Andrews Place East Melbourne
Presentation:	Brockhoff Lecture Theatre Level 3, Smorgan Family Building

Proudly Sponsored by

MERCK

Attendance at this meeting contributes to APACE points

Coming Up Soon:

Histology Group of Victoria Inc.

Tissue Processing

Speakers: **Geoff Rolls. Leica Microsystems**
Neville Farmer. Leica Microsystems

Date: Thursday 4th June, 2009
Time: 6:00 – 6:45 Refreshments
6:45 – 7:30 Presentation

Venue: Peter MacCallum Cancer Institute
7 St. Andrews Place
East Melbourne

Presentation: Brockhoff Lecture Theatre
Level 3, Smorgan Family Building

Proudly Sponsored by

Leica MICROSYSTEMS

Attendance at this meeting contributes to APACE points