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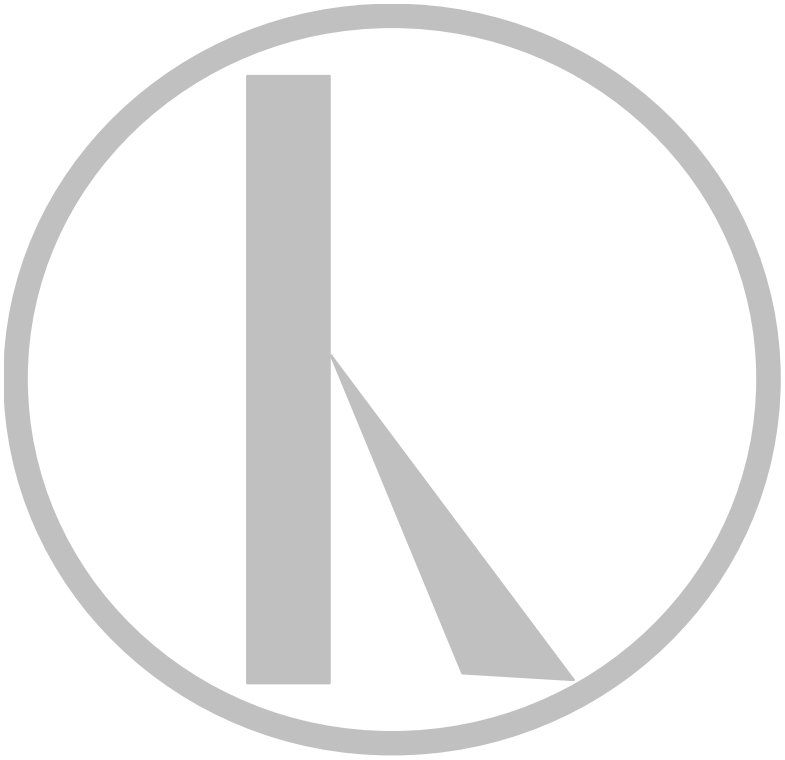

Newsletter of the Histotechnology Group of NSW

Contents

Editorial

The year is getting away from us and before long our National Meeting will be on (I better get cracking on our workshops – thank heavens I have Linda Prasad to keep me on track). The initial program has been sent to members and is included in this edition. The organising committee is doing a tremendous job. Our thanks.

There is an update on the Faculty of Science (RCPA) as well as an open letter from Adrian Warmington (HGV President) on the PAC and its involvement with Medical Scientists working in Pathology. I really believe that we need to go National in order to have adequate representation on Government Committees that are determining our working conditions and environment.

Tony Henwood,
Editor
anthonyh@chw.edu.au

Chairman's Report

Our committees focus over recent months has been on the next "National Histotechnology Meeting, 4th-6th November 2011", at Rosehill Gardens.

By now you should have received by post registration documentation and information. If you have not received this information please contact Kathy Drummond [ph 02 9855 5095, email kdrummond@dhm.com.au] or Trevor Hinwood [ph 0427 249794, email trevor.hinwood@hdscientific.com.au] to enable this information to be forwarded to you.

The workshops on Friday the 4th cover a range of topics including "Tissue Cut-Up" [requires some basic Cut-Up knowledge] run by Anne Prins and Penny whippy at Granville TAFE [limited numbers]. Consecutive workshops will be run by Tony Henwood and Linda Prasad on "Histo Hypothetical's" and "Histochemistry" a wet workshop exploring alternative staining procedures.

The program for Saturday and Sunday will be posted in the near future which will cover an interesting range of topics. Details are currently being finalised with the speakers.

This is also a great opportunity to meet with delegates from other laboratories around Australia to discuss techniques and problems.

Cheers,

Trevor Hinwood.
Chairperson.
Histotechnology Group of NSW.

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Melanin Update

Mammals and birds produce two major types of melanin, brown to black eumelanin and yellow to reddish pheomelanin. Both types of melanin pigments are synthesized in melanocytes and in retinal pigment epithelium cells. In those pigment cells, a specific enzyme tyrosinase oxidizes L-tyrosine to a highly reactive intermediate dopaquinone. Dopaquinone undergoes a series of spontaneous reactions, leading to the production of eumelanin via 5,-6-dihydroxyindole and 5,-6-dihydroxyindole-2-carboxylic acid (DHICA). When L-cysteine intervenes with this process, 5-S- and 2-S-cysteinyldopa are produced; whose oxidation gives rise to pheomelanin. However, most natural melanin pigments are actually produced by the integration of eumelanin and pheomelanin (mixed melanin). A closely related brown pigment, neuromelanin, is produced in the substantia nigra and in other regions in the catecholaminergic neurons of the brain. Dopamine (and/or dopa) acts as a precursor of neuromelanin with a partial incorporation of cysteine (1).

Melanin pigmentation of the skin in mammals, including man, was shown to result from the close interaction between the epidermal melanocytes, which synthesized melanosomes and the keratinocytes that acquired the melanosomes secondarily and served in their transport. The epidermal melanin unit was proposed as the fundamental integrated multicellular system for melanin pigmentation in man and other mammals. Each epidermal melanin unit consisted of an epidermal melanocyte and the constellation of keratinocytes with which it maintained functional contact. The number of active epidermal melanin units varied markedly between different regional sites in the human skin. However, the ratio of keratinocytes to melanocytes within epidermal melanin units remained constant. The number of epidermal melanin units appeared to be of little importance in accounting for the marked differences in pigmentation of human skin. Regardless of skin type, the numbers of epidermal melanocytes were comparable at specific anatomical sites; differences were based on the varying amounts of melanin within the epidermis ‘Active’ epidermal melanocytes engaged in melanogenesis increased in number after repeated exposure to UV light (3).

A major biological function of melanin appears to protect the skin from UV-induced DNA damage because melanocytes are mostly found in the skin and in the eyes where melanocytes are exposed to harmful UV radiation. However, melanocytes are also found in the inner ear and in the leptomeninges of the brain where UV radiation cannot elicit any harmful roles to the host. How melanin (or melanocytes) functions in those tissues is not so clear at present. But any roles that melanin plays may be related to the chemical properties of melanins which effectively scavenge reactive oxygen species (ROS), toxic free radicals and metal ions. Other functions have also been suggested for melanin, including thermoregulation, camouflage, sexual attraction, and others (1).

Recently it has been proposed that melanocytes are sensory and regulatory cells with computing capability, which transform external and/or internal signals/energy into organized regulatory network(s) for the maintenance of the cutaneous homeostasis. This concept is substantiated by accumulating evidence that melanocytes produce classical stress neurotransmitters, neuropeptides and hormones; express corresponding receptors and these processes are modified and/or regulated by ultraviolet radiation, biological factors or stress. Examples of the above are catecholamines, serotonin, N-acetyl-serotonin, melatonin, pro-opiomelanocortin-derived adrenocorticotropic hormone, b-endorphin or melanocyte stimulating hormone peptides, corticotropin releasing factor, related urocortins and corticosteroids including cortisol and corticosterone as well as their precursors. Furthermore, their production is not random, but hierarchical and follows the structures of classical neuroendocrine organizations

such as hypothalamic-pituitary-adrenal axis, serotoninergic, melatoninergic and catecholaminergic systems. An example of an intrinsic but overlooked neuroendocrine activity is production and secretion of melanogenesis intermediates including l-DOPA or its derivatives that could enter circulation and act on distant sites. Such capabilities have defined melanocytes as neuroendocrine cells that not only coordinate cutaneous but also can affect a global homeostasis (4).

Pigments are normally found in certain parts of the Central Nervous System, and they can be of neuromelanin, melanin or lipofuscin origin. The former is a product of auto-oxidation of catecholamine precursor; melanin derives from tyrosine containing precursors through the enzyme tyrosinase in melanosome; while lipofuscin is elaborated by, and progressively accumulated in, neurons involved in catecholamine synthesis. Neuromelanin is observed in neurons of substantia nigra and locus ceruleus; melanin in the meninges, in the fetal pineal gland and in the pigment layer of the retina; lipofuscin can be observed in neurons in the precentral gyrus, nuclei of cranial nerves, red nucleus, part of the thalamus, globus pallidus, inferior olives and dentate nucleus (2).

References:
1. Ito, S (2008) "Melanins seem to be everywhere in the body, but for what?" Pigment Cell Melanoma Res. 22; 12–13.
2. Antonelli M, Acerno S, Baldoli C, Terreni MR, Giangaspero F (2009) "A case of melanotic desmoplastic ganglioglioma" Neuropathology 29:597–601.
3. Westerhof W (2006) "The discovery of the human melanocyte" Pigment Cell Res. 19; 183–193.
4. Slominski A (2009) "Neuroendocrine activity of the melanocyte" Experimental Dermatology 18:760-763.

I have a pathologist who was very upset that our cryostat didn't seem to be working properly.

I rushed up to the frozen room to assist and he said, "well, nevermind, I got a slide and diagnosis."

I looked in the cryostat and said to him "you actually got a section and were able to render a diagnosis?"

"Yes" he said.

"WOW!, you must be the ONLY pathologist who is capable of sectioning tissue without a knife"

He sectioned the tissue and truly had no idea there wasn't a knife in the blade holder!

Safety Corner – Potassium Dichromate

Potassium dichromate, $K_2Cr_2O_7$, is a common inorganic chemical reagent, most commonly used as an oxidizing agent in various laboratory and industrial applications. As with all hexavalent chromium compounds, it is potentially harmful to health and must be handled and disposed of appropriately. It is a crystalline ionic solid with a very bright, red-orange color (1).

Potassium dichromate is one of the most common causes of chromium dermatitis. Chromium is highly likely to induce sensitization leading to dermatitis, especially of the hand and fore-arms, which is chronic and difficult to treat (1). Deep ulceration of the skin of the hands, resulting from occupational exposure can penetrate as far as the bone in severe cases (2) .It is also toxic, with doses of approximately 100 mg/kg being fatal in rabbits and rodents (1).

As with other CrVI compounds, potassium dichromate is carcinogenic and should be handled with gloves and appropriate health and safety protection. The compound is also corrosive and exposure may produce severe eye damage or blindness (1).

Potassium dichromate causes skin irritation and may cause skin burns. It can be absorbed by the skin and cause systemic effects.

Potassium dichromate is harmful if swallowed. When ingested in small amounts, it can cause burns of the esophagus, with possible stricture formation and perforation of the stomach. Symptoms may include adbominal and esophageal pain, nausea, vomiting, hypermotility, diarrhea, gastrointestinal tract irritation and bleeding, respiratory distress, cyanosis, coma, and death. It may also affect the cardiovascular system (cardiovascular shock, peripheral vascular collapse, urinary system (kidney damage - nephritis with glycosuria, acute tubular necrosis, renal failure), liver (elevated liver enzyme levels, hepatits, hepatic failure), behavior/central nervous system/nervous system (somnolence, ataxia, vertigo, muscle cramps). It may also affect the blood and cause anemia, methemglobinemia (characterized by dizziness, drowsiness, headache, shortness of breath, cyanosis with bluish skin, rapid heart rate) (2).

Potassium dichromate is incompatibility with various substances including reducing agents, combustible materials, organic materials, metals, acids and alkalis.

References

1. http://en.wikipedia.org/wiki/Potassium_dichromate
2. "Potassium dichromate MSDS". ScienceLab.com. http://www.sciencelab.com/xMSDS-Potassium_dichromate-9927404. Retrieved 2010-06-01.

Surgical Cut-Up Workshop

Are You Interested in Our Surgical Wet Cut-Up Workshop 2011?

- Gain practical skills with ethically collected tissue
- Held on Saturdays 5th March, 7th May, 2nd July and 3rd Sept 2011.
- Each session runs 10:00am to 3:00pm, morning tea and lunch included

- Covers the 4 NPAAC guideline divisions:
  - Simple transfers (biopsies, punches, cores etc.)
  - Simple tissue (skins, gallbladders, appendix etc.)
  - Moderately complex skins and organs (uterus etc)
  - Complex skins and organs (breast, colon, prostate etc)

- Comprehensive workbook provided with detailed descriptive language
- Folio generated from work completed – NPAAC requirement
- Suitable for all staff, from Associate Diploma equivalency to Degree
- Must have minimum 12 months experience in Cut Up assistance
- Satisfactory completion of all 4 sessions = Certificate of Competency

Held at **Canberra Institute of Technology** and run by **Anne Prins** and **Penny Whippy**

Maximum intake 12 only so be quick!

Cost: $110 per session or a total of $400 if paid before first session.

Contact: Anne Prins 02 6125 4644 anne.prins@anu.edu.au
Penny Whippy 02 6244 2874 penelope.whippy@act.gov.au

The Social Page Christmas Party 2010

Reprocessing Dried or Sub-Optimal Tissue Specimens

Kaye Ryan

PURPOSE:
This procedure provides instructions for re-hydrating dried tissue specimens.

PRINCIPLE:
Tissue may become dry due to a malfunctioning of the processor, or if the tissue has inadvertently been left out of fixative for an extended period of time. The fixative can also sometimes evaporate from the container, or leak out if the lid is not tightly sealed. Some cadaver tissues may be dried out if the body is discovered some days after death has occurred and been exposed to the elements.

SPECIMEN TYPE:
Any tissue that is dried or brittle either before or after fixation, or improperly processed paraffin blocks resulting from processor malfunction.

EQUIPMENT:

Tissue processor (VIP)
Graduated cylinders
Metal tissue molds
Glass containers

SAFETY REQUIREMENTS/SPECIAL HANDLING:
When reprocessing tissue specimens, gloves, goggles, and a plastic apron or laboratory coat should be worn.
Formalin is a suspected carcinogen.
Glycerin should be handled under a hood.

REAGENTS NEEDED:

Formol- Sodium Acetate (Stock) Solution
Formol- Glycerol (Working) Solution
Paraffin
Xylene
100% Dehydrant
95% Dehydrant

REAGENT PREPARATION:

1. Formol-Sodium Acetate (Stock) Solution

Concentrated formalin (37%) solution	50.0 ml
Sodium Acetate	10.0 g
Tap water	450.0 ml

2. Formol-Glycerol (Working) Solution

Formol-Sodium Acetate (Stock) Solution	450.0 ml
Glycerol (glycerin)	50.0 ml

PROCEDURE:

A. If tissue is dry due to a malfunction of the processor, follow steps 6-7 of the reprocessing schedule below.
B. If the tissue is left out of fixative for a period of time, or if the fixative evaporates, follow steps 6-7 of the reprocessing schedule below.
C. If at microtomy, paraffin blocks do not section due to improper impregnation with paraffin, reprocessing can be accomplished by following all steps of the reprocessing schedule.

Reprocessing Schedule:

1. Place paraffin blocks in molten paraffin wax (60 C) for two (2) hours.
2. Remove tissue from paraffin and place in three (3) changes of xylene for one (1) hour each.
3. Place tissue in 100% dehydrant, two (2) changes, for one (1) hour each.
4. Place tissue in 95% dehydrant, two (2) changes, for one (1) hour each.
5. Place tissue under running tap water for 20 minutes.
6. Place tissue in formol-glycerol working solution until softening occurs. (This usually occurs within 5-8 hours. Extended exposure to the formol-glycerol solution will not harm tissue.)
7. Place tissue on the processor and proceed with routine processing starting in the dehydrant. (It is not necessary to expose the tissue to further fixation.)

EXPECTED RESULTS:

Dried tissue specimens are softened and acceptable histologic preparations can then be generated.

Update on the Use of Immunohistochemistry in Melanocytic Lesions

In many laboratories, the most widely utilized chromogen is diaminobenzidine (DAB). However, the brown color of its reaction product sometimes raises difficulties in distinguishing between DAB and melanin pigment. For the evaluation of melanized lesions, there are several options. Other chromogens, such Fast Red or aminoethyl carbazole (AEC), result in a red immunoperoxidase reaction product that is usually easy to distinguish from melanin. Also, rather than using hematoxylin as the counterstain, techniques such as Giemsa or azure B change melanin colour from brown to green. Finally, bleaching techniques can eliminate melanin from the slides. However, these latter techniques may change the pattern of expression of several antigens. For example, HMB-45 may become positive in some macrophages, a finding seen only rarely in unbleached slides. Therefore, those laboratories using bleaching techniques must standardize the immunohistochemical processing to ensure consistent results and minimize false positive findings. Similarly, some antigen retrieval techniques may result in aberrant findings, such as macrophages expressing melanoma antigen recognized by T cells (MART1) (1).

S-100 protein remains the most sensitive (if not so specific) marker of melanocytic differentiation. Probably 95% of primary cutaneous melanomas express this marker (1,3). However, this antigen is sometimes altered when the specimen has been incorrectly fixed (whether too much or too little fixation time) or previously frozen and also under some immunohistochemical techniques (enzymatic pretreatment with trypsin may damage the antigen). In general, melanomas initially considered S-100 negative become positive on additional testing after changing the settings (enzymatic pretreatment and detection system) (1). S-110 has also been found to be adversely affected by excessive slide drying temperature (7 hours at 80^{o}C) (2).

gp100 (detected with the antibody HMB-45) remains one of the most useful melanocytic markers. While not absolutely specific, the other lesions that also express this marker (angiomyolipoma, sugar cell tumour of the lung and so-called ‘pecoma’) do not usually enter into the differential diagnosis of skin tumours. HMB-45 has a pattern of expression in melanocytic lesions resembling that of ‘maturation’ of nevi. It is well known that those melanocytes within the epidermis or superficial dermis in melanocytic nevi are epithelioid, have large

cytoplasm and frequently exhibit melanin pigment in the cytoplasm (i.e. type A melanocytes).
Melanocytes in the deep areas of nevi are usually spindled and lack melanin pigment (i.e. type C melanocytes). This morphologic change is mirrored by an immunophenotypic change: type A cells mostly express neuronal markers, while type C cells express Schwannian markers. HMB-45 labels primarily intra-epidermal melanocytes, 'activated' melanocytes, and 'immature'/fetal melanocytes. In most nevi, the labelling is restricted to the upper portion of the lesion (papillary dermis) or the adventitial dermis around skin adnexa; in contrast, most of the cells located deeper in the dermis are not labelled (1).
MART1, an antigen first detected in melanoma metastases, is now one of the most important melanocytic markers. It is immunohistochemically demonstrated using the Melan A antibody. Similar to S-100 protein, most melanocytes, benign and malignant, express this marker. Therefore, it is very helpful in detecting melanocytic differentiation. The only melanocytic lesion that is consistently negative for MART1 is desmoplastic melanoma (1).

Recently examples showing pitfalls of Melan-A immunostaining have been described (4). This study described the possibility of falsely positive Melan-A labelled cells in the dermis. Subsequent staining with CD68 allowed their identification as macrophages and not melanocytes. Knowledge of these phenomena is important and can avoid confusion of melanocytes and macrophages.

References

1. Prieto VG, Shea CR. (2008) "Use of immunohistochemistry in melanocytic lesions" J Cutan Pathol 35 (Suppl. 2): 1-10.
2. Henwood, A., (2005) "Effect of Slide Drying at 80°C on Immunohistochemistry" J Histotechnol 28(1):45-46.
3. Henwood, A.F., (1992) "A comparison of S100, HMB-45 and NKI-C3 in melanocytic lesions: A preliminary study" Tissue Talk Jan pp 4-5.
4. Andres C & Flaig MJ (2010) "Pitfalls of Melan-A staining" J Cutan Pathol 37:917–918

Update on the Faculty of Science, RCPA

Paul Waring (chair, FFs(RCPA) has communicated several items of business to note.

The following members were elected to represent your interests on the Faculty Committee and were appointed to the following offices:

- Paul Waring (chair), anatomical pathologist, Victoria
- Tony Badrick (vice-chair), biochemist, Queensland
- Silvano Palladino (secretary), microbiologist, WA
- Pam Sykes, molecular biologist, SA
- John Rasko, haematologist, NSW
- Kevin Carpenter, biochemical geneticist, NSW
- Beverley Rowbotham (College Council appointment)
- Kon Muller (College Council appointment)

These members provide broad representation across the various disciplines of pathology and geographic regions within Australia and reflect the proportion of scientists and pathologists within the Faculty. However, the discipline of immunology is not represented and there are no representatives from New Zealand and SE Asia. We need to consider how to address these shortcomings.

The Chair of the Faculty Committee will represent the Faculty on College Council. Additionally, two Past Presidents of the College, Bev Rowbotham and Konrad Muller are the President's and Council's representatives, respectively, on the Faculty committee.

Council formed a working group to re-assess the criteria for admission as a Founding Fellow, following the receipt of several complaints that the current criteria was not sufficiently inclusive. The working group, which included the College President, CEO and deputy CEO, the Chair of the Board of Censors, Tony Badrick and myself, held a teleconference on 1 April to discuss the issues raised. It was decided to reword the first requirement (Qualifications) such that FRCPA's are no longer required to possess a research higher degree. The FRCPA is regarded as being equivalent in this regard to Fellowship of other professional bodies recognised by Council (eg FAACB, FHGSA etc), holders of which are not required to possess a PhD. It was decided not to change the wording of the second requirement (Significant distinction and ongoing contribution and excellence in the science relating to pathology), but for Council to grant exemptions to scientists in senior leadership positions who do not meet the mandatory requirement of "publication of a substantial body of original scientific work in a discipline of pathology" and for the Faculty to work with the BOC to more carefully consider the contributions made by applicants to the education of RCPA Trainees and Fellows. Council has agreed to re-assess all unsuccessful applicants from the first round to identify those applications that need to be re-considered by Council and/or the Faculty.

A call for the second round of applications for Founding Fellows will go out in the 12

May edition of Pathology Today. The closing date for applications will be 15 July 2011. Applications will be assessed according to the amended criteria and will be subject to the revised interpretation in which greater weight will be give to senior leadership positions and teaching contributions. This second round is intended to be more inclusive of diagnostic laboratory scientists who have distinguished themselves by leadership and teaching rather than through original research.

The Faculty will need to propose representatives for the Board of Censors and the Board of Education from the general Faculty membership. A general call for nominations for all College committees will be announced on 9 June, however, we could do this sooner if we wished. The representatives would join the six elected members and the Council's and President's representatives on the Faculty Committee. Representing the Faculty will not be a simple matter as the nominees will need to embrace all of the sub-disciplines of pathology and the breadth of professions from research scientists, medical laboratory scientists and pathologists. We will need to consider whether there should be Faculty representatives on each of the RCPA discipline advisory committees.

The Faculty Committee will be holding a strategic planning day on 25 May 2011 to identify and agree on the "big issues" that the Faculty needs to address. Firstly, the Faculty needs to establish communication with the broader Faculty in order to hear your views and opinions, to learn about your hopes for and expectations of the Faculty and to seek your input into decisions that need to be made. I would urge each of you, therefore, to contact Tony or I or another member of the Faculty Committee who best represents your discipline or geographic region prior to 25 May, to allow us to incorporate your views into our discussions.

The Faculty Committees' current priorities are:

1. To address the long-standing medical laboratory scientist career structure and workforce issues,
2. To devise a training and /or examination process for future fellows,
3. To incorporate the Faculty into the College's existing education programs such as the Pathology Update meetings and
4. To identify opportunities for research collaboration among members of the Faculty.

We are currently considering that Fellowship could be attained through either a program of training and examination (akin to the training of pathology registrars) for those who wish to pursue a more clinically-focused career or by evaluation of published works (akin to the FRCPath) for those who wish to pursue a more research-focused career.

Charles (Chuck) Churukian Remembered

NSH and International Histotechnology Loses a Cherished Member & Friend:

Charles J. Churukian
Brighton: May 11, 1928 - February 23, 2011, Charles J. Churukian 82. Predeceased by his parents, Joseph and Christin Aintablian Churukian, and sister, Sally Churukian Taroni. He is survived by his wife, Irene Billings Churukian of 41 years and his sister, Rose Churukian Milone as well as sisters-in-law, nieces and nephews. Charles will be sadly missed by family and friends.

As a PFC in the infantry, he served as a heavy machine gunner in World War II receiving the Army of Occupation Medal and Victory Medal.

Teacher, mentor, poet, editor, innovator, "guru of special stains", Charles worked in histology laboratories for 54 years and supervised the Histotechnology Lab at the UR Medical Center for the last 40 years. He was recently presented with the "Histotechnologist of the Decade" Award by the National Society of Histotechnology for his contributions to the laboratory science field having numerous publications, presentations and awards to his credit. He devoted his career looking for ways to modify the art of special stains for the benefit of patient care. In addition to his professional life, he offered spiritual guidance to many inmates at the jail.

A Letter from Adrian Warmington, HGV President

Following the last National Histology conference in Adelaide in 2009, the state representatives agreed to investigate the possibility of one of the Histology groups becoming a member organisation of PAC as there is no Histology representation due to no formal national Histology body existing in Australia. The HGV volunteered to participate on the PAC, but following several approaches to the PAC, they have provided no response. In my opinion the PAC are therefore not acting as a group that is interested in looking after the interests of all disciplines of medical scientists equally. The letter attached comes via the MSAV, who are also actively pursuing the issues being addressed in the attached letter. I can not speak on behalf of the other state Histology groups, but it is disappointing that the HGV President is deemed not important enough to be included in correspondence from the seemingly exclusive PAC.

March 2011

Second Open Letter to Medical Scientists working in Diagnostic Pathology from the PAC

This is the second in a series of Open Letters to Medical Scientists, the first of which was sent in December 2009. The purpose of this letter is to keep you up to date with the work force planning activities of the Pathology Associations Council over the last twelve months. The Council is actively trying to create a career structure for Australian Medical Scientists. There are complications with trying to develop such a framework as it will necessarily involve both public and private organisations with different industrial relations instruments and with different disciplines. Differences between States and Territories are also well known but these and the above-mentioned factors should not deter us from formulating a structured national career framework for the future.

The first limb of this career structure was to identify the basic competencies that are required by any person working in a pathology laboratory. These competencies, the Competency Based Standards, are now a tier 6 NPAAC document (http://www.aacb.asn.au/web/Current_Issues_-_Workforce/Competency_Based_Standards/) and serve as the foundation for the development of the career structure. Next it was necessary to form a generic role definition for each of the major classifications of staff working in a laboratory, unqualified, technical officer, scientist and senior scientist, and this document, the Role Definition for Australian Medical Scientists, is also now available (http://www.aacb.asn.au/web/Current_Issues_-_Workforce/Scope_of_Practice/). The next body of work in this area will be to adapt these generic role definitions and make them more discipline specific.

The aim of the Career Framework for Medical Scientists is to:

- Introduce a career framework encompassing all disciplines and employment groups within the workforce based on roles and function and linked to transferable skills and competences
- Clearly identify pathways for progression, supported by learning and development
- Provide national flexibility to support local service delivery, and the expansion and extension of current roles;
- Recognition of qualifications/skills/competencies/experience in all States.
- Provide improved opportunities for learning and professional development, supporting recruitment and retention into healthcare science disciplines, and removing the barriers to career progression
- Develop an education and training framework based on a range of academic, vocational and professional qualifications/awards to recognise underpinning knowledge and skill acquisition relevant to functions being undertaken. This would be based on equivalence within each career framework stage irrespective of initial entry point.

- Preserve the science base within the profession such that career progression will not only be on the basis of increased management and financial responsibilities but also on specialised scientific service provision and Research and Development roles.

There would need to be a transition phase for all those currently in the profession. Because of the multiple industrial instruments in different jurisdictions and enterprises it would be necessary for all of these organisations to voluntarily adopt this career structure. There is no tying of pay rates to these classifications, only a desire to make career advancement and transfer easier for scientists and their employers.

The focus on skills and competences related to the service function to be delivered is absolutely fundamental to the success of the proposal. Educational and professional requirements will continue to be important in the design, delivery and assessment of programmes. These will need to be created and administered by the professional associations covering the various disciplines. It is expected that there will be two levels of professional qualification offered, a specialist discipline Membership and a specialist Fellowship. These contributions will be enhanced by added flexibilities so that the skills required to deliver patient and public focused services are able to transcend traditional professional boundaries. Additionally, personal development plans will be required to help individuals who are not from academic backgrounds to identify needs and develop the skills and competences required for working at more senior levels. A variety of learning programmes will be required to help fill gaps.

Registration is currently not available for medical scientists but a component of the successful implementation of this career structure would be the creation of a Certification Board and ongoing Certification of medical scientists. It is envisaged that Certification would mark the end of the 'trainee' phase. An applicant would be required to show that they had the required formal qualification (Bachelor degree in appropriate field) and had been trained in an appropriate facility by suitably trained senior staff. There would need to be evidence of satisfactory achievement against the competencies defined for a scientist in the role definition document. Certification would be an annual or biennial event and would require the applicant to show ongoing CPD and include some data collection on current duties, role, location and possibly future intentions. The model proposed for the Certification Board draws its members from the professional societies and could be administered by a member of the PAC on behalf of Council.

The creation of a Certification register would provide improved workforce planning capabilities into the future and potentially provide added protection for the public as well as providing a mechanism whereby employers could ensure appropriate clinical governance and credentialing of laboratory professionals.

It is hoped that progress will be made in 2011 on the Certification process and further developments will occur in the career framework. At this stage we invite comment via your respective Association or Society on these proposals and from all those involved in the profession. These changes are intended to produce a more sustainable and attractive career structure for medical scientists in the future. Your feedback is essential.

Horses for Courses

FIFTH NATIONAL HISTOTECHNOLOGY MEETING

4-6 NOVEMBER 2011

Hosted by

HISTOTECHNOLOGY GROUP of NSW

Celebrating 30 years of Histotechnology

Dear Member,

The Histotechnology Group of NSW invites you to attend the next National Conference which is to be held at Rosehill Gardens, Sydney, 4-6 November 2011. Rosehill Gardens is one of Sydney's premier horse racing centres. This weekend is an excellent opportunity to meet your fellow Histotechs from around Australia and from further afield. We are expecting over 300 delegates.

There will be two **Gross Dissection** workshops on Friday 4 November run by Anne Prins and Penny Whippy at nearby Granville TAFE. Numbers for the Gross Dissection workshops will be limited.
There will be two separate on site workshops - **Histo Hypotheticals (morning)**: an interactive workshop which will present problems that affect the quality of our results and participants will be encouraged to advise suitable courses of action; and **Histochemistry (afternoon):** a 'wet' workshop exploring alternative staining procedures (Microwave technology, detergent de-waxing, alternative stains). The workshops will be lead by Tony Henwood and Linda Prasad from The Children's Hospital at Westmead. These will be held once only, so that if you want to attend a cut up workshop, you will need to choose which of these you would like to attend.

The preliminary program for Saturday and Sunday includes an international speaker as well as a speaker from the Brain and Mind Research Institute and speakers on Lymphomas, Haematoxylin, Molecular Pathology, Moh's surgery, Skin Cancer, Case studies in bone tumours, Breast pathology, Colorectal pathology.

There will be a significant trade display with a large number of companies being represented and prizes for posters and abstracts.

Also a gala dinner has been arranged for Saturday night at Rosehill Gardens costing $74. You might like to dress for the occasion: 'Horses for Courses' is our theme, just a few days after the Melbourne Cup. There will be a prize for the best race call.

Accommodation is not included in your registration fee but rooms have been reserved at Rydges Hotel at Parramatta (across the road from the venue). Please contact Rydges via our Website linkage (www.rydges.com/cwp/histotechnologyconf) or direct on (02) 8863 7600 to book and pay for your own accommodation.

Your registration includes all meals **except** breakfasts and Saturday dinner.

Saturday and Sunday registration:	early bird, before 31 August 2011	$310
	after 31 August, before 4 October	$340
Single day registration:	early bird, before 31 August 2100	$210
	after 31 August, before 4 October	$230

Each workshop will cost an **additional** $50 and includes morning or afternoon tea plus lunch for Friday.

Payment can be made by cheque to "Histotechnology Group NSW Conference" or via internet, but you **MUST** complete all details on the internet so we know who is paying and **return your completed registration form** for early bird registration by 31 August 2011 or by 4 October 2011:

mail to PO Box 496, Guildford.NSW. 2161 or

email to kdrummond@dhm.com.au or

fax to (02) 9855 5169

BSB:**802 084**; Account number: **100198182;** Account name: **Histotechnology Group of NSW**. Reference your name or invoice number. Prices **include** GST.

Further conference information is available on our Website (www.histonsw.org.au) or by contacting:

Kathy Drummond	Phone:	(02) 9855 5059
	E-mail:	kdrummond@dhm.com.au
or		
Trevor Hinwood	Mobile:	0427 249 794
	E-mail:	trevor.hinwood@hdscientific.com.au

We look forward to seeing you at Rosehill in November.

Yours sincerely,

Kathy Drummond (Hon Secretary)

Histotechnology Group of NSW
National Histology Conference 2011

Name:.....	
Address:..... ..... Is this address work☐ or home☐?	
Phone no.: work ..... mobile:	
Place of work:	
Email (please print legibly):	
Dietary requirements:	
Workshops: Surgical dissection (morning) ..... ☐ **OR** Surgical dissection (afternoon) ..... ☐ Histo Hypotheticals ..... ☐ Histochemistry ..... ☐	$..... $..... $.....
Early bird registration (Before 31st August 2011): **Saturday and Sunday** ..... ☐ **Saturday only** ..... ☐ **Sunday only** ..... ☐	$..... $ ..... $.....
Saturday registration ..... ☐ **Sunday registration** ..... ☐ **Saturday and Sunday registration** ..... ☐	$..... $..... $.....
Saturday night dinner: delegate ..... ☐ guest/s ..... ☐	$ ..... $ .....
Payment method: cheque to Histotechnology Group NSW (National Conference) ☐ internet banking ..... ☐ (your name)	$ ..... $ .....
Submission of **abstract**: ..... ☐	
Submission of **poster:** ..... ☐	
TOTAL	$.....

HISTOTECHNOLOGY GROUP of NSW

ABN: 63 128 868 343
nswhistogroup@bigpond.com

I wish to become a member of the Histotechnology Group of N.S.W. and enclose

PLEASE TICK: ☐ $38.50 for annual subscription of $35.00 and $3.50 GST.

☐ $16.50 for student subscription of $15.00 and $1.50 GST
(Full-time or working toward first qualification)

☐ $82.50 for company subscription of $75.00 and $7.50 GST
(2 representatives, one of whom must be a NSW representative)

Please make cheques payable to the Histotechnology Group of NSW
Or: I**nternet Banking**: BSB:**802 084**; Account number: **94099;**
Account name: **Histotechnology Group of NSW**.
******Reference: **[Name – for member identification]**

☐ RENEWALS ☐ ANY CHANGES TO PREVIOUS DETAILS.

PLEASE **PRINT** ALL INFORMATION.

SURNAME_____ GIVEN NAME_____

TITLE: MR, MRS, MS, DR, MISS. (Circle one)

OCCUPATION_____ POSITION_____

INSTITUTION_____ DEPARTMENT_____

ADDRESS for CORRESPONDENCE:

STREET/P.O.BOX._____

CITY,TOWN,SUBURB,_____ POSTCODE._____

IS THIS ADDRESS HOME OR BUSINESS ? (Circle One).

PHONE No. WORK_____ EXT_____ HOME_____

E-MAIL ADDRESS: _____

2ND COMPANY CONTACT

SURNAME_____ GIVEN NAME_____

TITLE: MR, MRS, MS, DR, MISS. (Circle one)

POSITION_____ INSTITUTION_____

ADDRESS STREET/P.O.BOX._____

CITY,TOWN,SUBURB,_____POSTCODE._____

PHONE No. WORK_____ HOME_____

E-MAIL ADDRESS: _____

SIGNATURE_____**DATE**_____

RETURN TO:

SECRETARY
HISTOTECHNOLOGY GROUP of N.S.W.
P.O. BOX 496
GUILDFORD NSW 2161

Office use only

Receipt	
Recorded	