HGVT

Org. No. A003523F

PARAFFINALIA NEWSLETTER

VOLUME 24, NUMBER 4
December 2019

The HGVT aims to provide a dynamic continuing education program in which all persons with an interest in Histology and Histotechnology are freely invited to participate.

CONTENTS:

Committee Page

The members of the Histology Group of Victoria and Tasmania 2020 are:

Name	Institution
Kerrie Scott-Dowell	Dorevitch Pathology/Leica
Adrian Warmington	Dorevitch Pathology (Ballarat)
Mark Bromley	Sullivan Nicolaides Pathology
Elizabeth Baranyai	Cabrini Health
Kellie Madigan	Leica Biosystems
Alison Boyd	Northern Hospital
Kellie Vukovic	Melbourne Pathology
Sue Sturrock	Melbourne Pathology
Yvette Beaber	Monash
Samantha Arandelovic	Mater Hospital Brisbane
Emma Pan	Walter & Eliza Hall Institute
Alex Johnston	Walter & Eliza Hall Institute
Sukwinder Sohal(Romi)	University of Tasmania
Meghan Leo	Histolab
Bindi Bates	Peter Mac
Ola Aladass	VCS

Contact us at
http://www.hgv.org.au/contact-us
Membership enquiries: membership@hgv.org.au
General enquiries: secretary@hgv.org.au
Sponsorship/Advertising enquiries: trade@hgv.org.au
Newsletter enquiries: editor@hgv.org.au

Advertising for the next edition of Paraffinalia closes: **22th February , 2020**

Paraffinalia Rates:

A4 Electonically Submitted $400 (no GST) Flat Rate Per page
$1200 yearly package
Positions Vacant- No Logo up to 75 words
FREE to email membership
FREE list on Website
Used Equipment- 50 words – no logos/no pictures
FREE
A4 with logo $200 (no GST)

Articles & Reports:
Author enquiries and readers wishing to contribute articles or reports can contact the Editor - editor@hgv.org.au

Please email articles (preferably Microsoft Word format) for inclusion in the next edition to editor@hgv.org.au All items submitted for publication will then become the sole property of the Histology Group of Victoria Inc.

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 Incorporated or the editor.

NOTE: No responsibility is assumed by the Histology Group of Victoria Incorporated 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 user's responsibility to ensure that all procedures are carried out according to appropriate Health and Safety requirements.

Advancing Cancer Diagnostics
Improving Lives

Leica BIOSYSTEMS

The Art of Sectioning

HistoCore Rotary Microtomes

CHOOSE THE MICROTOME THAT BEST FITS THE NEEDS OF YOUR LAB:

- **Manual HistoCore BIOCUT**
- **Semi-automated HistoCore MULTICUT**
- **Automated HistoCore AUTOCUT**
- **Automated HistoCore NANOCUT**

Contact Leica Biosystems for more information: (Aust) 1800 625 286 or (NZ) 0800 400 589

LeicaBiosystems.com

18379 Rev A 07/2018

President's Report- Behind the Bench

Greetings Histopeeps to the last Paraffinalia for 2019.

I would like to thank Sam Arandelovic for the great job she has done as President. Despite being relocated interstate during her tenure, Sam continued her commitment to the job, so they will be hard footsteps to fill. That being said, I have a terrific bunch of people on the committee supporting me, so the job of delivering educational opportunities and a forum for our community, is not so onerous. I am dedicated to increasing engagement within Histology and to this end; the committee has looked at scheduling an interesting program in 2020, that includes a weekend symposium/workshop. I am particularly conscious that many of our members are on shifts that make the Thursday evening meeting difficult to attend, so hopefully they can take advantage of this forum in July.

The incorporation of Tasmania into the HGV was an achievement in the last 12 months. We have mutually benefited from this relationship with the latest half day conference in Launceston well attended. It was lovely to see some Victorians taking advantage of having a weekend away and the bonus of having some tax-deductible learnings thrown in. The organisation from the Launceston team and the facilities were top notch, but it was the enthusiasm of the speakers and group that made this such a success (Shout out to Romi, Randall, Karen & the speakers for their contribution).

I would like to take this opportunity to recognise the passing of an icon of our community. Dr Abe Dorevitch passed away on 6th October. He was passionate about Pathology and teaching and above all he was a remarkably kind and humble gentleman who leaves a legacy on Victorian Healthcare. On a personal note it was an honour to have worked for this man for over 25 years.

Please take care on the roads over the holiday season and we will hopefully see you all in 2020 at the scientific meetings, workshop and symposium. If you have any suggestions on topics or comments, please feel free to contact us.

Kerrie Scott (Leica/ Dorevitch Path)

Myr

Especialidades Médicas Myr S.L.

MYREVA SS-30 Festive Pricing

Myr MYREVA SS-30 fully automated slide stainer Festive Pricing

With a flexible staining capacity and a bi-directional arm, the MYREVA SS-30 allows simultaneous and automatic staining of up to 5 racks (150 slides) with identical and /or different staining protocols. This maximizes efficiency and productivity in labs.

MYREVA SS-30 is the perfect instrument for Hematoxylin and Eosin (H&E) and Papanicolau (Pap) staining. It also meets requirements for special, user-specified staining protocols.

Users can load slide racks randomly, achieving the best efficiency for a high throughput staining.

Festive Pricing:
Abacus dx is offering a **15% discount** on the MYREVA SS-30 list price for all orders received by end of December 2019*.

Request a quote: www.abacusdx.com

***Terms & Conditions**

- Orders must be received by COB Tuesday, 31st December 2019
- Offer only available to customers in Australia and New Zealand
- Not to be used in conjunction with any other offer
- Offer valid while stocks last
- Discount only applies to new orders received on or prior to 31st December 2019 and does not apply to existing orders
- Discount does not apply to shipping, packing & handling charge

abacus dx

Distributed by Abacus dx:
1800 222 287 | info@abacusdx.com | www.abacusdx.com

Under the Microscope with Alex Johnston

1. What was your first part-time job?

Being a check out guy at Coles.

2. How long have you worked in histology?

All up it's probably close to 5 years now.

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

I usually ask if they know anyone that's had a part of their skin removed and explain that what I do is the next step in the process and lets the pathologist see what's happening at a cellular level.

I'm not always the best at explaining things so sometimes people smile and nod...other times they just nod, which is good because then they ask follow up questions and I cover what I missed.

4. What is a skill you'd like to learn and why?

That's a really hard question! Sometimes I think I'd like to be really good at a random skill like a new language. But I'm really into understanding how things work so something like learning coding seems like it'd come in handy in the future and also be interesting.

5. If money was no object, what would you do all day?

I feel it'd be something food related for sure! I can definitely see myself trying everything in Brunetti's. Rockclimbing/paintballing would be a close second.

6. What's an ideal weekend for you?

Food. Friends. Fun. Any combination of those things usually is pretty great. Sometimes I want to be busy and other times have nothing to worry about so an ideal weekend fits in both and at least one amazing sleep.

7. If you could take only THREE items with you to a deserted island, what would they be?

My guitar, a fishing rod and a volleyball so I could re-enact Tom Hanks in Castaway.

8. What's on your bucket list this year?

Putting more time into music practice would be a fun goal. Taking photos outdoors or with friends is something I don’t do enough of but is definitely worth working on. Professionally, there’s a few new skills I'd really like to get to a point where I can be proud of them.

9. Where do you most want to travel, but have never been?

Germany seems like an exciting place to go. I've heard nothing but great things from people and its pretty close to other countries so it'd be a great chance to see a lot of things at once.

Alex has also just joined the HGVT Committee

Nano-Confined Catalytic Oxidation Air Filtration

The state of the art in air purification.

Cleans and neutralises solvents, fumes and bacteria from the air without the need for expensive exhaust systems.

VETO MEDICAL TECHNOLOGY

When you need to know

0400 289 318

SALES @ VETOMEDTECH.COM.AU

SEPTEMBER SCIENTIFIC MEETING REVIEW

The scaring fresh-eating ulcer- Buruli Ulcer

On 5th September 2019, HGVT has organised another session of scientific meeting at Peter MacCallum Cancer VCCC in Parkville, sponsored by Australian Biostain. Dr. Alistair Veitch and Sue Sturrock, in proxy of Rachel Lim, from Melbourne Pathology, Ee Laine Tay from Department of Health and Human Services and Professor Paul Johnson from Austin Health were our honorable guest speakers. The focus of this scientific meeting is Bairnsdale Ulcer, also commonly known as the flesh-eating ulcer. 54 members attended.

Dr. Alistair Veitch first gave his presentation on a real case he previously worked on. The presentation started with a quick introduction about a horrible skin lesion with its macroscopic description and H&E images. A series of tests were ordered by pathologist to solve the puzzle. Fite stain was the special stain revealed the lesion could be something rather than a common bacterial infection or cancer, and then PCR and cell culture were used to determine that the ulcer was caused by M.Ulcerans.

Ms. Sue Sturrock then presented on behalf of Ms. Rachel Lim from Melbourne Pathology. The focus of this talk is about identification, comparison and confirmation of mycobacterium. She compared three cutaneous mycobacteria commonly seen in pathology labs, Tuberculous, Leprae and Ulcerans, as well as three special stains, Ziehl-Neelson, Wade-Fite and Gram stains on assisting in making diagnosis.

The third guest speaker, Ee Laine Tay, then talked about the epidemic of Buruli Ulcer since 2014. Information was given in where and when the outbreak was first identified, age and sex distribution in patients, affected areas, time frame from symptom onset to diagnosis and the next step that the public health department would take.

The last presentation by Professor Paul Johnson was intriguing as he talked about his journey of discovering the true culprit behind this destructive skin infection, which involves mosquitoes and possums rather than the contaminated dam or freshwater lakes! He interestingly revealed that one of his reasons to study this disease is because the outbreak was close to his family's beach house. He talked about his possum excreta survey study in Point Lonsdale and Queencliff between 2007-2009 and proposed mosquito spray is an effective prevention measure. Unfortunately, the trial was suspended as a result of a petition from the Bees community.

Agilent
Dako

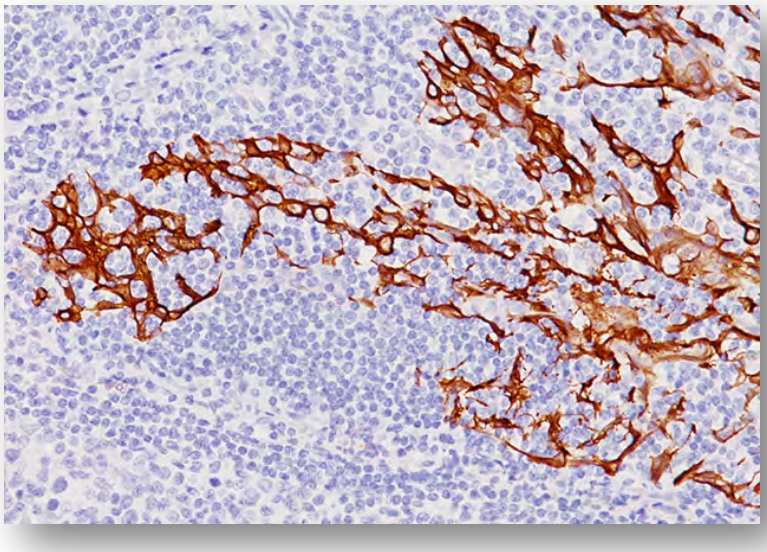
Include PD-L1 as Part of Your Routine NSCLC IHC Panel

PD-L1 IHC 22C3 pharmDx (Dako Omnis) accelerates accurate selection of NSCLC patients eligible for treatment with KEYTRUDA® and enables PD-L1 results to be delivered to pathologists with the routine NSCLC IHC panel.

Contact your Agilent Sales Representative today to find out more.

www.agilent.com

Agilent
Trusted Answers

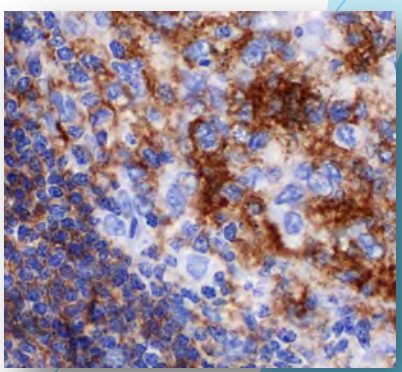


IHC Antibody of the Month – CD19

CD19 is a lymphomatic cell marker, when requested, usually in combining with other common CD markers used in immunophenotyping. CD19 molecule is a transmembrane glycoprotein. CD19 presents as membrane/cytoplasmic stain in immunohistochemistry (top). Pathologists use CD19 to differentiate B cells due to its expression is restrained in B-cell lineage and follicular dendritic cells. During the development of B cells, progression in cell maturation is associated with elevated expression level of CD19. In other words, increased intensity of CD19 IHC stain usually represents more mature B cell population. However, CD19 doesn't present in plasma cells.

CD19 plays two main roles in B cells. One is that it contributes to the functionality of B cell receptor and is involved in the cell signaling pathway to facilitate B cell differentiation. Hence, it is commonly used to detect B cells and aid in diagnosis and classification of B-cell associated haematological malignancy. On the other hand, CD19 forms complex with another transmembrane protein CD21, and the complex triggers immune response to a foreign substance. Mutation of CD19 gene on chromosome 16p11.2 relates to common variable immunodeficiency type 3 (CVID3), characterized by diminished antibody production. Poor response to antigen and defective immunological memory lead to symptoms of immunoglobinemia.

B cell lymphoma	positive
B cell leukemia	positive
Follicular lymphoma	weak/negative
Diffuse Large B cell lymphoma	weak/negative
Myeloid leukemia	Occasionally positive
T cell lymphoma	Rarely positive



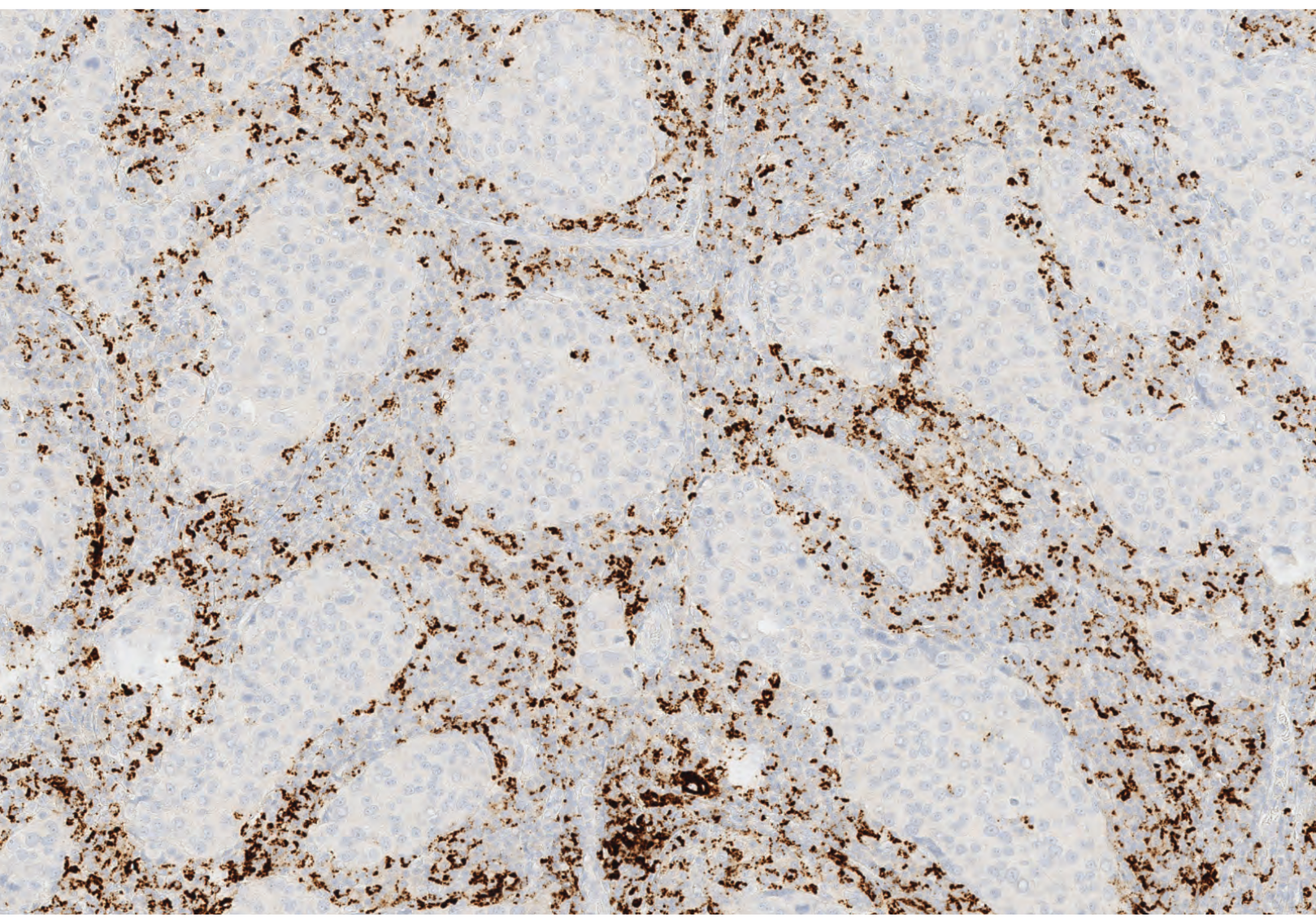
VENTANA PD-L1 (SP142) Assay

Identify triple-negative breast cancer (TNBC) patients eligible for TECENTRIQ®

Your assay choice matters

Using the right test to determine PD-L1 status for immunotherapy options is important. The VENTANA PD-L1 (SP142) Assay gives you the confidence to reliably identify triple-negative breast cancer (TNBC) patients eligible for TECENTRIQ®. [1,2]

The novel VENTANA PD-L1 (SP142) Assay is easy to score and the first with FDA-approval to evaluate patient PD-L1 expression using immune cell staining and scoring within the tumour microenvironment. The assay provides you with information oncologists demand to guide immunotherapy decisions in TNBC.



1. Ventana Medical Systems Inc. VENTANA PD-L1 (SP142) Assay Package Insert.
2. TECENTRIQ Prescribing Information.

Roche Diagnostics Australia Pty. Limited 2 Julius Avenue, North Ryde, NSW, 2113
Tel: +61 2 9860 2222
ABN 29 003 001 205

www.roche.com
rochediagnosticsaustralia.com

SCIENTIFIC REVIEW OCT 2019

By Kellie Vukovic

On Thursday 31st October over 60 people gathered at Peter MacCallum for the fourth scientific meeting of 2019 plus the Annual General Meeting.

The Annual General Meeting was held first which involved going over the 2019 year. It has been a busy year to date with five scientific meetings, the Trivia night, the National Conference in Adelaide, a change to the Victorian group to include Tasmania and the inauguration of the National Histology Group of Australia. The 2020 Committee were elected with a brand new President, Kerrie Scott-Dowell and are very excited to plan out next year. A big thank you to Sam Arandelovic for all the work she has done as the HGVT President this year.

The first speaker of the night was Cindy O'Malley from RMIT with her presentation titled "Could you teach Anat Path at RMIT?" The main message of the talk was that the Laboratory Medicine course should be taught by Lab Med people who are working in the industry. RMIT as an employer was discussed including employee benefits and the pay comparison between lecturers and current lab staff. They are looking for a senior level Lab Med scientist with a passion for the profession to replace Janine Danks who has recently resigned. The job is flexible with a job share option available where you could be a part time academic and work part time in the industry. Anyone who is interested in this opportunity should contact Cindy – cindy.omalley@rmit.edu.au.

The second speaker of the night was Hazel Chambers-Smith from the Royal Children's Hospital with her presentation titled "Diagnosing Paediatric Brain Tumours." This was a very in-depth and complex talk discussing the molecular and immunohistochemistry which helps in the diagnosis and treatment of these tumours. The latest version of the Classification of the Central Nervous System from 2016 is already outdated with a massive increase in molecular information from 1980-2020. This is an area that continues to grow rapidly.

The Who Grading System was looked at with tumours classified as 1, 2, 3, or 4. The location of these tumours was discussed with different testing being done depending on what part of the brain the tumour was growing in. The talk explained Ependymomas, Medulloblastomas and Atypical Tetroid/Rhabdoid tumours. The different IHC profiles and molecular testing for each of these tumours was discussed in depth. The take home message was that paediatric tumours are very diverse and complex and now rely heavily on Molecular studies. The diagnosis of these tumours is an integrated process involving a combination of molecular and immunohistochemistry stains.

The final speaker was Ahida Batrouney from the Royal Melbourne Hospital with a presentation on Lung Cancer. The patient was a 74 year old male who presented with hypercalcemia and was otherwise asymptomatic. A right upper lobectomy resection was performed which showed strong nuclear staining for TTF1, negative staining for p40 and cytoplasmic staining for CK7 and Napsin A. A final diagnosis of non-small cell lung cancer was given which ultimately has a poorer prognosis to an adenocarcinoma.

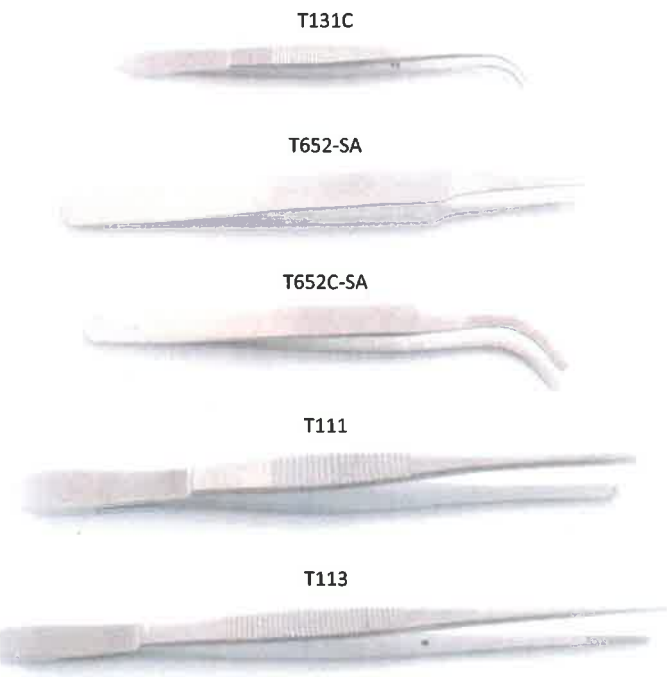
Ahida also shared with us a letter received from a patient who had molecular testing and IHC done indicating he was eligible for targeted therapies. His immediate response to these treatments drastically changed his poor prognosis around. His heartfelt letter thanking all those concerned with giving him time to be a husband, father, brother and son certainly validated our contribution patient care.

MEGA SALE

UP TO 50% OFF

BEST DEAL OF THE MONTH

Economy Tweezers made from corrosion resistant stainless steel. Popular tweezer styles for various jobs where other cheap fine point tweezers would bend. For fine work such as handling TEM Grids we recommend both our Dumont and Economy Tweezer Range.



ECONOMY TWEEZERS

fb.com/ProSciTech

(07) 4773 9444
sales@proscitech.com
11 Carlton St, KIRWAN QLD 4814 AUSTRALIA

SCAN FOR SHOP ONLINE
OR VISIT
RETAIL.PROSCITECH.COM

Free Shipping* - Only applies to orders over AUD200.00

QUALITY ISN'T A LUCKY DIP

- ✓ **TGA Registered**
- ✓ **IVD Class 1**
- ✓ **IVD Class 2**
- ✓ **ISO 13485:2016**

Whether it's Routine Stains or Special Stains, Test Kits, Buffers, Solvents or Fixatives, Australian Biostain has a complete portfolio of Brilliant Solutions for Histology.

With over 30 years of experience manufacturing in Australia, our portfolio has grown from Neutral Buffered Formalin to Test Kits such as Masson's Trichrome that differentiates cells from connective tissue in vivid hues of red, green and blue.

When it comes to Quality Assurance, rest in the knowledge that our products are certified Class 1 and 2 IVD, and we operate an ISO 13485:2016 Quality Management System.

Don't leave anything to chance. At Australian Biostain, quality isn't a lucky dip.

24-26 Stratton Drive,
Traralgon, VIC 3844 Australia

P: +61 3 5176 2855
E: enquiries@australianbiostain.com.au
www.australianbiostain.com.au

AUSTRALIAN BIOSTAIN

Student Awards

HGVT sponsored Student Awards

Congratulations on to the following students on achieving excellence in Histology

Shannyn Cleary – (RMIT Degree)

Yuliano Patino Sanchez - (Holmesglen Tafe)

Kayla Stone - (Tasmania Uni)

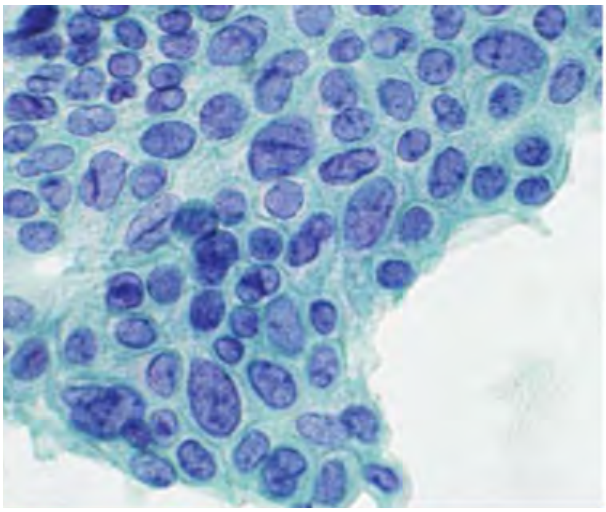
Laura Benson - (Federation Uni)

Kelly Herbert - (Gordon Tafe)

Scientific Meeting November- Launceston

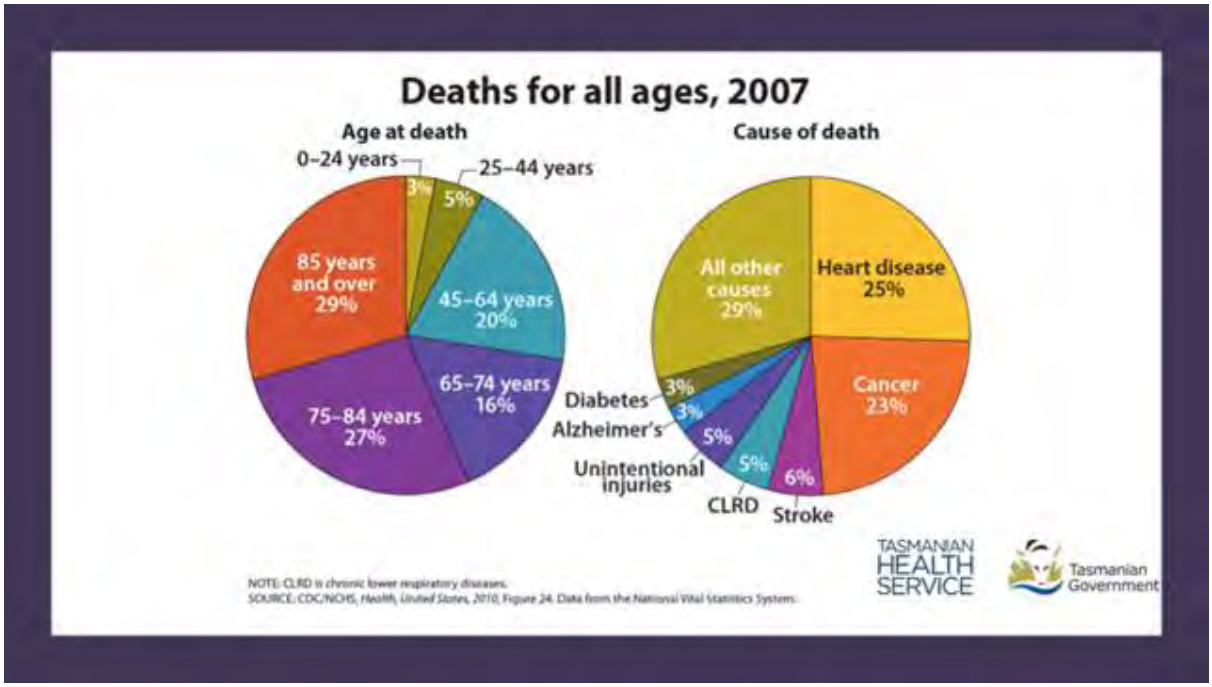
The HGVT held a half day conference in Launceston on the 9th November. It was well attended by 53 delegates and 7 speakers.

Dr Bruce Chau spoke about the different cystic lesions of the pancreas and how they are best diagnosed. A diagnosis should be based on a tetralogy of findings: Clinical features, Radiology, Cytology and Fluid biochemistry with CEA and amylase testing (mucinous vs serous etiology)



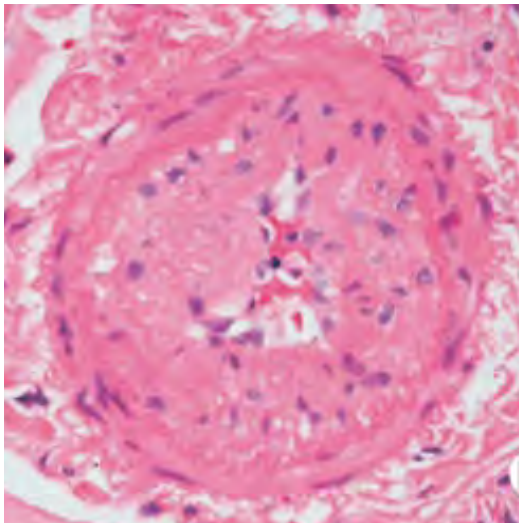
Cytology image showing the nuclear features for malignant mucinous lesions. Note: high nuclear to cytoplasmic ratio, pleomorphism and nuclear folds

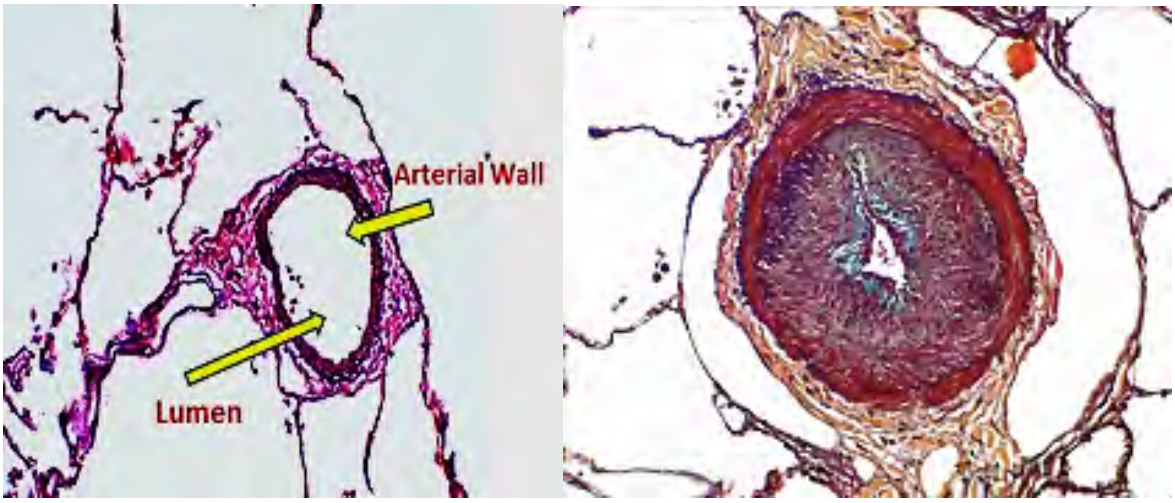
Randal Hodgson discussed how we die, and I was very happy that I have a good chance of living to be over 85. 1 in 4 deaths are related to heart disease and of those 80% are preventable through life choices (that was slight downside).



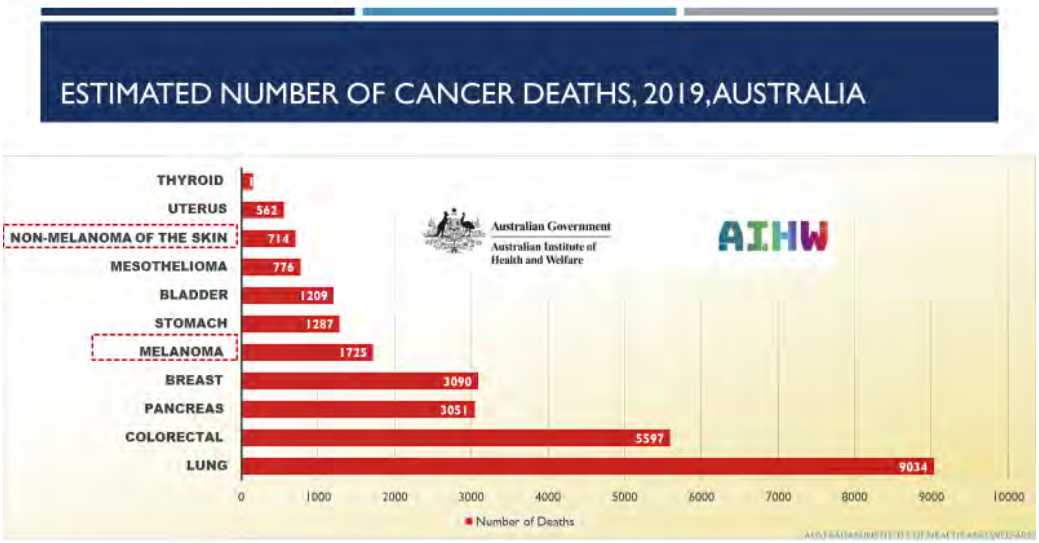
Scientific Meeting November- Launceston

Archana Gaikwad took us through her Phd work into the role of endothelial to mesenchymal transition in Idiopathic Pulmonary Fibrosis(IPF) and Pulmonary Hypertension(PH). Understanding the process and looking for treatment options will benefit from her work. Some of her images really captured the problems seen, like her blood vessel image with H&E showing IPF and the HP stained with Movat's Pentachrome stain below.





Kim Yeoh gave us a great insight into the diagnostic challengers seen with melanoma.



TRAJAN

Pathology products that enhance the quality and effectiveness of your workflow

Workflow efficiency

Influencing the continuous improvement of global diagnostic practices through the supply of quality and enhanced pathology products.

- Pathology products that enhance the quality and effectiveness of your workflow.
- Microscope slides that minimise rework and deliver superior results.
- Trusted and reliable partner for your specific needs.
- Actively pursuing technology developments driven by improving patient outcomes.
- Whether you have specific specimen complexities, instrument compatibility issues, cost constraints or high levels of rework with your current slides, Trajan will show you the right path for your laboratory.

Advice from our pathology specialists

What are your pain points? Do you have trouble choosing the best slides for your needs? Are you running out of space to deploy slide printers where you need them? Have you experienced problems finding a reliable supply of quality wax? Talk to us for advice on your workflow solutions.

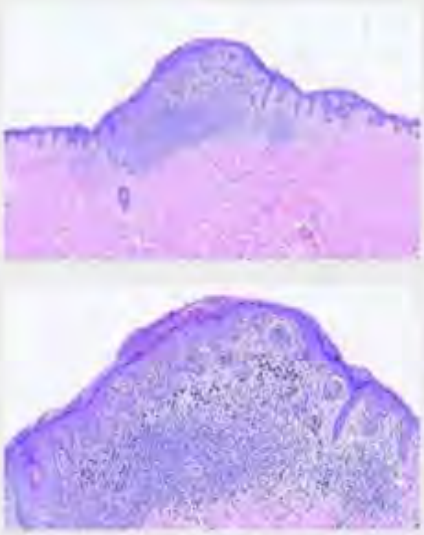
Showing the right path

Contact us on 1800 257 213 for advice on workflow solutions specific to you.

www.trajanscimed.com

Scientific Meeting November- Launceston

With the incidents of melanoma being the 3rd most likely cancer diagnosed, and the 5th most likely to result in death, it is a concern when a particular lesion looked at by 36 different Pathologists gave 18 different results.



Diagnostic terms given	No of pathologists
MPATH-Dx class I	
Common nevus, junctional	3
Dysplastic nevus - mild	2
Halo nevus (1)	1
Atypical melanocytic neoplasm, junctional (suggested treatment of no further treatment required)	1
MPATH-Dx class II	
Spitz nevus (conventional), (junctional, compound, or intradermal)	4
Dysplastic nevus - moderate	2
Pigmented spindle cell nevus (junctional or compound)	1
Atypical nevus not otherwise specified, including atypical nevus of special anatomic - moderate	1
Atypical intraepithelial melanocytic proliferation (AIMP) (suggested treatment of repeat excision <5 mm margins (narrow but complete))	1
Atypical melanocytic neoplasm, junctional (suggested treatment of repeat excision <5 mm margins (narrow but complete))	1
MPATH-Dx class III	
Atypical/dysplastic Spitz lesion, (junctional, compound, or dermal)	5
Melanoma in situ, common/pagetoid/superfical spreading	5
Dysplastic nevus - severe	1
Atypical nevus not otherwise specified, including atypical nevus of special anatomic site - severe	1
Melanoma in situ, not otherwise specified	1
Atypical melanocytic neoplasm, junctional (suggested treatment of repeat excision with at least 5mm (but <1 cm) margins)	1
MPATH-Dx class IV	
Invasive melanoma, superficial spreading melanoma	4
MPATH-Dx class V	
Invasive melanoma, heavily pigmented melanoma	1
Total	**36**

PATHOLOGISTS' DIAGNOSIS OF INVASIVE MELANOMA AND MELANOCYTIC PROLIFERATIONS: OBSERVER ACCURACY AND REPRODUCIBILITY STUDY, BMJ 2017;357:j1795

Although histopathology is the gold standard for melanoma diagnosis, it can be seen from this result, there is certainly a need for molecular testing as adjuncts/ancillary tests in many aspects of melanoma from diagnostics, prognostication and therapeutic guidance.

Dane Hayes continues his work with the Tasmanian devil facial tumour and shared with us his immunophenotyping results that will be published soon. His work will hopefully give the devils a targeted therapeutic marking to help with the survival of the species.

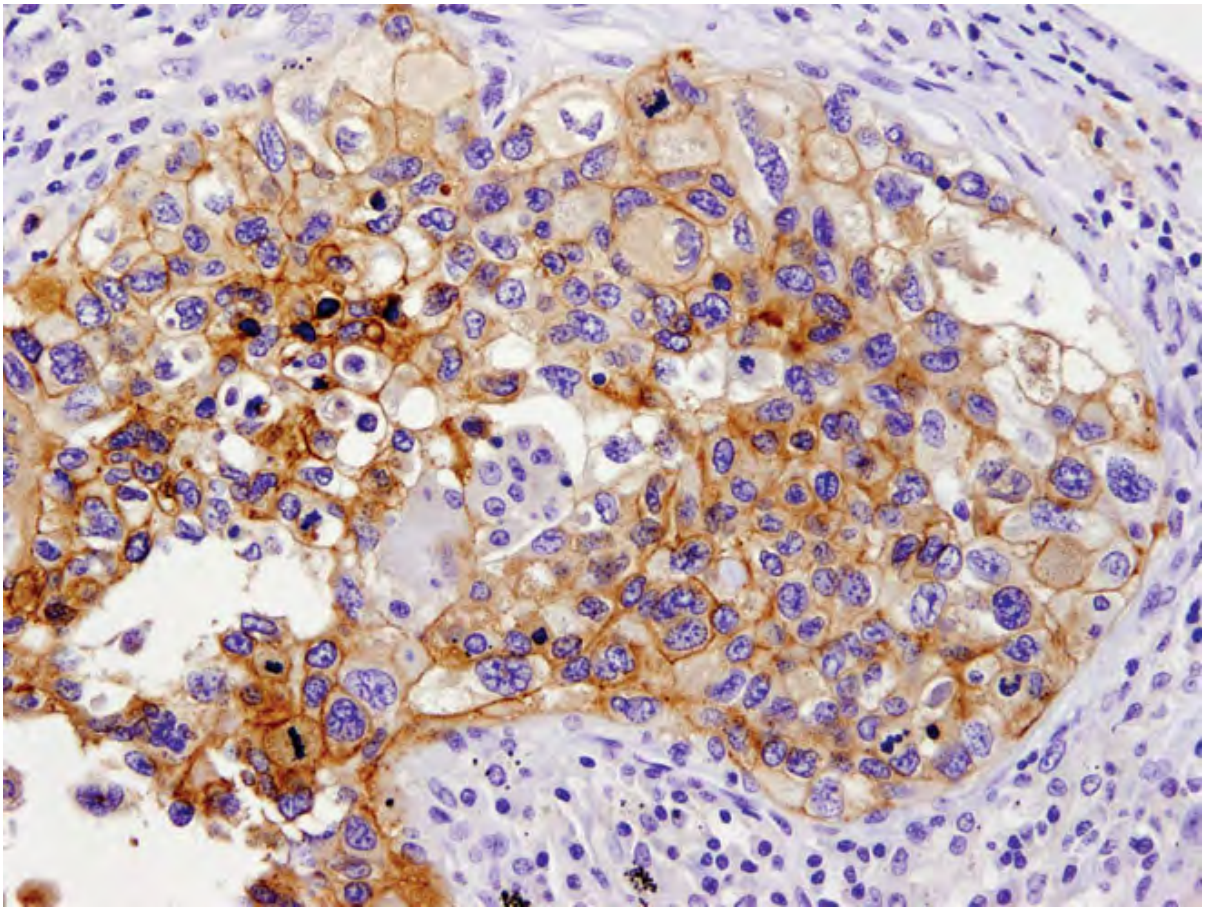
Scientific Meeting November- Launceston

Rio Kim spoke on Validation of PD-L1 immunohistochemistry for cytology cell blocks in non-small cell lung cancer. Programmed Death – Ligand 1 (PD-L1) is transmembrane glycoproteins which controls T-cell mediated immune response by binding to Programmed Death – 1 (PD-1) in normal immunity.

Approximately 70% of patients with advanced non-small cell lung cancer shows PD-L1 expression on tumour cells. Patients' eligibility for treatment with PD-1/PD-L1 inhibitors are accessed by immunohistochemistry assay on biopsy tissue.

The majority of non-small cell lung cancer are unresectable at the time of diagnosis, so a small biopsy or/and cytological sample is commonly obtained for diagnostic investigation. In some cases, cytology samples are the only diagnostic material available for testing. The use of cytology material for PD-L1 assay is not approved/validated for clinical application in NSCLC.

Adequacy of tumour cells and representation on cytological sample are questionable due to tumour heterogeneity and with more variables of cytology samples makes it difficult to get adequate sample size with corresponding biopsies to confirmPD-L1 status

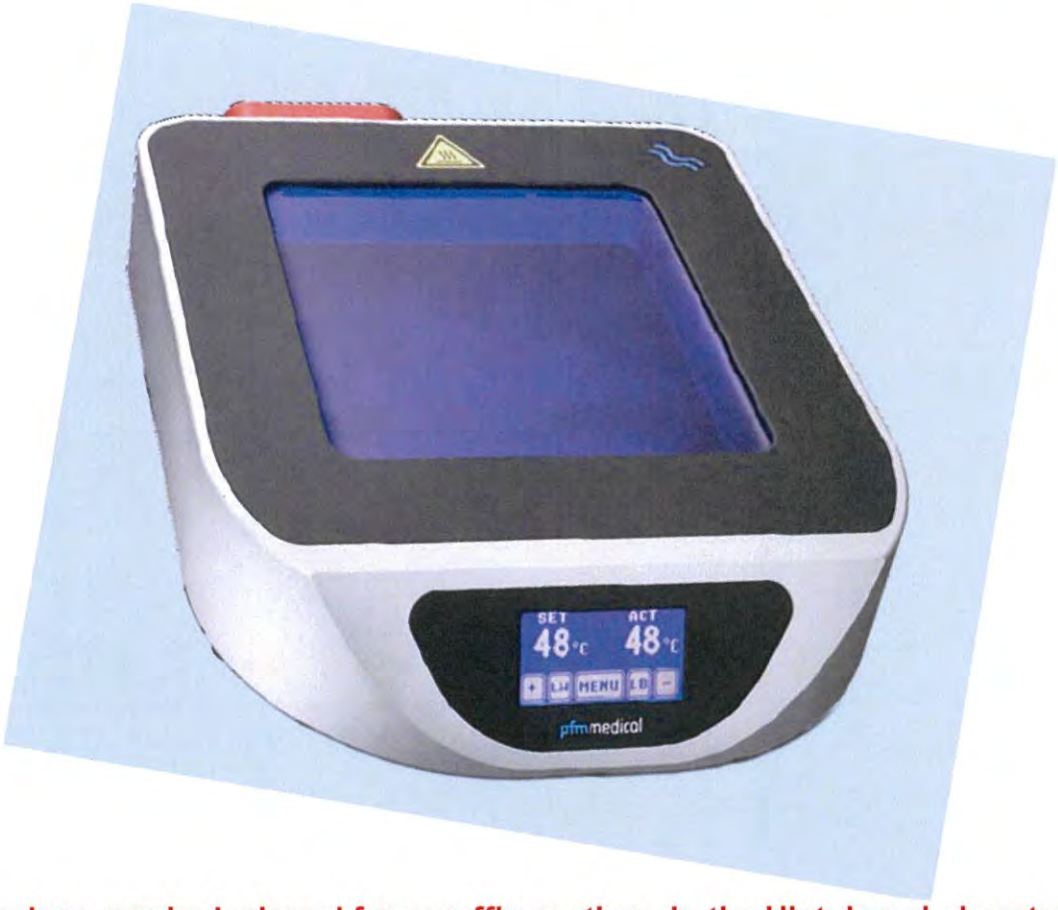


ARTHUR BAILEY SURGICO PTY LTD

rob@arthurbailey.com.au
02) 9555 1588
0407 976 811

Introducing .. .. ..

Waterbath 1000



Modern, newly designed for paraffin sections in the Histology Laboratory

TRIPLE ILLUMINATION – Glare-free light
PRECISE TEMPERATURE ADJUSTMENT
CLEAR TOUCH SCREEN DISPLAY
MINIMUM WATER LEVEL SENSOR
EASY TO CLEAN & MAINTAIN
UNMATCHED QUALITY

pfmmedical
Quality and Experience

Details

- Housing: anodised aluminium
- Water tank: black anodised alumin ım
- Easy to clean
- Fast and precise adjustment of the water temperature
- Overheating protection device to avoid overheating and damage even when the waterbath is empty
- Power supply protected from water
- Water level control via sensor
- Blue marking to show where to empty the water
- Triple illumination (white, blue, blue/white)
- Clear digital touch-screen with electronic temperature control

Detailed View

Illumination white

Illumination blue

Illumination blue/white

Technical Data

- **Dimensions overall (W/D/H):** 280 x 386 x 77.5 mm
- **Dimensions water tank (W/D/H):** 178 x 200 x 56 mm
- **Max. usable depth:** 56 mm
- **Filling level:** 50 mm
- **Tank capacity:** 1.77 l
- **Heated rim (W):** 50 mm, revolving
- **Temperature range:** up to +60 °C
- **Weight:** 7.0 kg
- **Instrument fuse, primary circuit:** T 6.3 A
- **Power supply:** 220 - 240 V, 50 - 60 Hz, 1200 VA

Ordering Information

pfm Waterbath 1000

REF	PU
041010	1 pc.

Ordering Accessories

Cover with Handle for pfm Waterbath 1000

REF	PU
041020	1 pc.

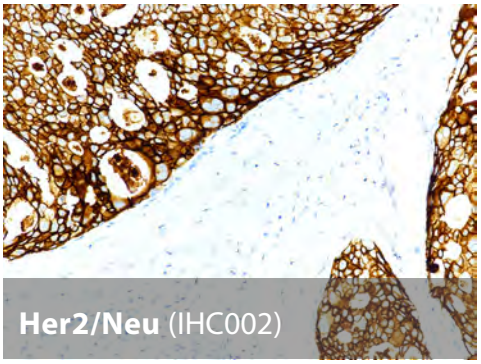
- Material: black anodised aluminium
- Protects against contamination

GeneAb™
Molecular Pathology Antibodies

METAGENE GenomeMe CANADA

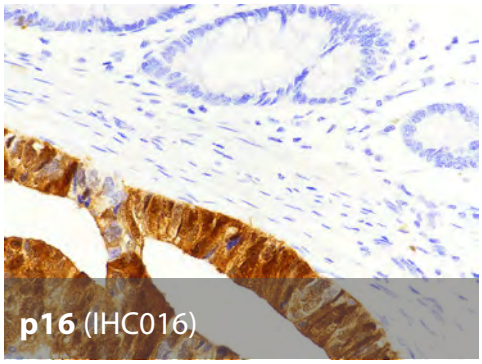
Free samples available:

CE IVD



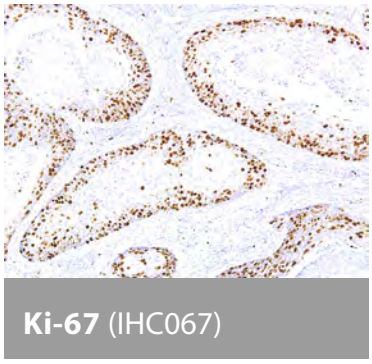
Her2/Neu (IHC002)

The Her2/Neu (c-erbB-2) proto-oncogene is a transmembrane receptor tyrosine kinase that is clinically indicated in a number of carcinomas, including ductal breast cancer as well as pulmonary and gastric adenocarcinomas.

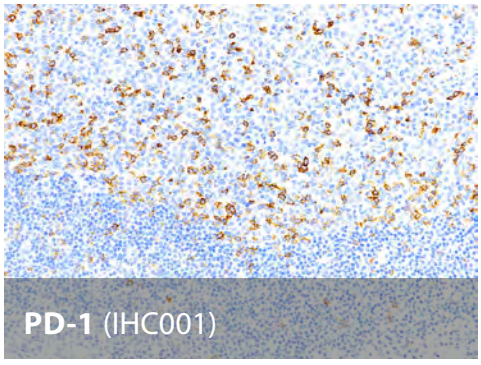


p16 (IHC016)

p16 is a tumor suppressor that is a key marker in several human cancers including head and neck cancer, as well as carcinomas of the esophagus, pancreas, lung, biliary tract, liver, colon, and urinary bladder.

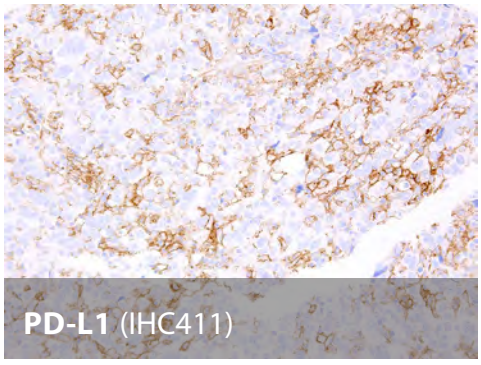


Ki-67 (IHC067)



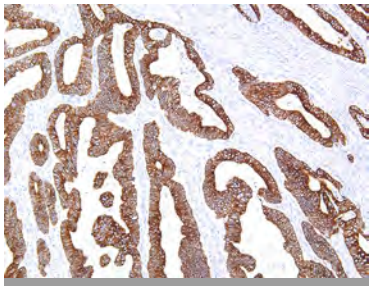
PD-1 (IHC001)

PD-1 is a co-receptor on the surface of activated T-cells, B-cells, and macrophages. Therapies targeted toward PD-1 have shown remarkable clinical responses in patients with non–small-cell lung cancer, melanoma, and renal-cell cancer.

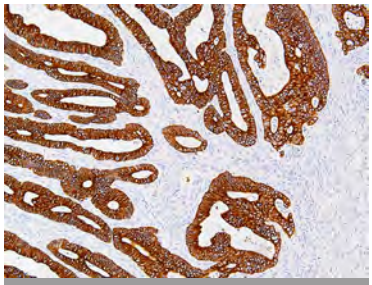


PD-L1 (IHC411)

PD-L1 is involved in immune suppression and anergizes cytotoxic T cells through binding of the PD-1 receptor. Overexpression of PD-L1 may allow cancer cells to evade the actions of the host immune system.



Cytokeratin 18 (IHC018)



Cytokeratin 19 (IHC019)

Available Formats:

Free Sample:
- Concentrate (1:100-1:200): 10µl
- Pre-dilute: 1ml

Product Size:
- Concentrate (1:100-1:200): 0.1ml and 1ml
- Pre-dilute: 7ml and 25ml*

**25ml available for some antibodies only*

Source:

Mouse Monoclonal:
- Her2
- p16
- PD-1
- Ki-67
- Cytokeratin 18
- Cytokeratin 19

Rabbit Monoclonal:
- PD-L1

Contact Us:

METAGENE

Website: www.metagene.com.au
Email: admin@metagene.com.au
Phone: 1800 788 498

sysmex | Lighting the way with diagnostics

Designer software for your pathology workflow

Delphic AP

- 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.
- Compatible with digital pathology systems enabling a seamless workflow for lab staff and pathologists

Colin McKenzie | E: mckenzie.colin@sysmex.co.nz | M: +64 (21) 625272

www.sysmex.com.au

Retirement Thank You

To all our fellow Scientists/Technicians/Clients,

Jenny & I wish to thank you for your continued support of Australian Biostain over the last 30 years. On July 1st, 2018 we sold our business and while we stayed on for a few months we are now retired.

Our aim was to always provide the best quality, and service possible at all times, including technical support.

We have established many friends in the industry at all levels over the years, and we hope we have the opportunity to maintain contact in the future.

Yours sincerely,

Mike & Jenny Rentsch

*From the HGVT we wish you both a happy retirement

Org. No. A0035235F

Future Events:

2020

Thursday 20th February Educational Evening

Multiple Short Case Studies (Speakers TBA)

Venue-Peter Mac

Thursday 23rd April Educational Evening

Mohs (Speaker TBA)

Venue-Peter Mac

Friday 24th July and Saturday 25th July Workshop and Seminar

Program TBA

Venue TBA

Friday 14th August

Trivia Night

Venue TBA

Thursday 15th October Educational Evening

Cut up of a Uterus

Speaker Kellie Vukovic

Saturday (TBA) November

½ Day Educational Meeting

Venue- Tasmania Somewhere

TekEquipment

GrossPath GP-1500 Down-Draft Grossing Workstation

INTEGRATED ACTIVE CARBON AIR RECIRCULATION FILTER

- Compact
- Pollution–free
- Simple Installation
- No need to install a costly ducted ventilation system
- Height Adjustable

www.TekEquipment.com.au

1300 368 138 info@tekequipment.com.au