

INSIDE

SSWPS team make gains in melanoma research

SSWPS is a key part of the research into melanoma in Australia and around the world — PAGE 2

Awards and achievements

A snapshot of our success stories in the past 12 months — PAGE 4 & 5

Drug backlog cleared

FASS staff meet the deadline to provide NSW Police Force with the service they need — PAGE 6

Take a tour of the intranet

After being launched in January more staff are logging into the site and learning more about our news and services — PAGE 7

Reaping the rewards of smarter procurement

A new approach to purchasing equipment and consumables is paying off — PAGE 8



Monika McShane, Grace Van Der Vegte and Gail Seldon - SEALS Clinical Chemistry and Endocrinology Laboratory

Helping dreams come true

Monika McShane is helping people's dreams come true.

Her team at the SEALS Clinical Chemistry and Reproductive Endocrinology Laboratory helps families seeking fertility treatment and provides services for the Royal Hospital for Women at Randwick and other reproductive medicine providers.

They also help monitor women with problems in early pregnancy, including those with a risk of miscarriage or suspected ectopic pregnancy, and provide first trimester screening for Down Syndrome.

The team deals with all aspects of laboratory work including seeing patients, collecting samples and generating results for clinicians, nurses and midwives.

"My job is all about multitasking, thinking on my feet and working as part of a team," Monika said.

"My day usually starts early with patients attending a number of clinics. I'm assisted by two scientists and between the three of us we keep the ship afloat.

[Continued on page 3]

SSWPS WORLD LEADER IN MELANOMA RESEARCH

This year's annual Melanoma March will focus on one of the most common causes of cancer deaths in young adults.

But few understand the vital role public pathology is playing to transform metastatic melanoma from a death sentence into what might one day be a chronic or curable disease.

Sydney South West Pathology Service's Professor Richard Scolyer is recognised as a world-leading melanoma pathologist and researcher.

"A clinician might suspect a melanoma but it's a pathologist's interpretation of a biopsy that confirms it," Professor Scolyer explains.

"The pathological features of the biopsy are pivotal in directing the next stage of patient management. Unfortunately at times diagnosis is difficult, and in some cases melanomas which appear fairly innocuous behave aggressively."

Professor Scolyer and his team are using cutting-edge molecular techniques to find new ways to recognise 'bad' melanomas, enabling patients to receive potentially life-saving therapies sooner.

They have also developed and validated a new immunohistochemistry test to determine in one day if a tumour has the BRAF gene mutation present in about 50pc of all metastatic melanomas. These can be treated with new inhibitor drugs. The test is accurate, cheaper and faster than previous tests, which could take up to two weeks, potentially compromising treatment options, quality of life and longevity of some patients.

The SSWPS team is a key player in the Australian Melanoma Genome Project, as well as in the US government-funded The Cancer Genome Atlas melanoma project.

Professor Scolyer is based at Camperdown and can be contacted on 02 9515 7458.



INFOCUS

Neil Horton

Operations and Quality Manager,
Pathology North (New England)

What's the best thing about your job?

The variety of tasks I get to do. Operations allows me to keep abreast of how we're performing and where we need to adjust. Quality allows me to keep up-to-date with my lab skills and knowledge so I can ensure our quality standards are met.

What does a typical day at work involve?

Phone calls, emails and lots of talking with our pathology and medical staff and other health professionals. I'm also on the road a lot given my dual roles. I'd hate to think how many kilometres I've travelled in the last 20 years.

What are you working on to strengthen the services Pathology North provides?

We operate four labs in the New England region. Given the small population and wide geographic area (it's the size of Tasmania), we're continually challenged to deliver cost effective services 24 hours a day, seven days a week. While we're a critical partner to the hospitals we service, we're also trying to enhance our private referral base.

We're currently talking with doctors' surgeries in several communities as well as an Aboriginal Medical Service in the region, so we can make a bigger difference to the health of local Aboriginal people.

What is your favourite charity or cause and why?

Tour de Rocks, which is an annual bicycle ride for cancer that goes from Armidale to South West Rocks. It's for a great cause and gives me a fitness goal to work towards.

Change or status quo – which do you prefer and why?

Change, as nothing stays the same. We have to continually change our work and work practices to meet the demands of the service we offer.

It can be frustrating, difficult, infuriating, fantastic and deeply satisfying all at the same time.

What's your favourite word and why?

Discombobulated. I just love the sound of it (and I often find myself feeling that way on a busy day given all the different hats I have to wear).

[Cover story continued]

"We perform blood collections and prepare samples for analysis.

"Time is of the essence since clinicians usually wait for blood results before they make decisions on further treatment."

Monika said she doesn't have one big story that stands out about a patient benefitting from the work she does.

"It's more a case of lots and lots of little stories, little successes, quiet achievements," she said.

"It's the times when patients come to visit us to show off their much-wanted baby after many years of trying."

"We all get a bit teary and emotional knowing that in some small way we were instrumental in that outcome."

Working with her colleague and research partner Dr Xuguang Han, Monika has also been able to introduce two new tests into the lab.

The First Trimester Screening and measurement of Anti-mullerian Hormone (AMH) tests are now part of the routine test menu at SEALS.

The AMH test is sometimes known as the egg-timer test. It helps women understand their ovarian reserve and assists in optimising fertility treatment. A low level of AMH means less chance of pregnancy.

The test became available around five years ago in the public and private health systems.

It's run alongside an ultrasound of the antral follicle that counts the resting eggs in the ovary.

When the tests don't match up it can indicate further testing might be required.

Samples are frozen because the testing is done in batches of 36. On average it takes about a fortnight to gather that many samples for a batch test.

When clinicians reported some difference in AMH and ultrasound test results – particularly when samples had been frozen and thawed – Monika and Han worked with Professor Bill Ledger at the Department of Obstetrics & Gynaecology, University of New South Wales, to investigate and try to determine a possible cause.

"The experiments we did helped us conclude that adding a buffer solution to the samples before doing the testing reduced interference from other substances and allowed a more accurate test of the levels," Monika said.

"We presented our findings at an international conference in London in July 2013 and these were also published in the May 2014 edition of *Human Reproduction*.

"Upon our return from the conference our team began working with the test's supplier and about three months later a more accurate test became available which is now being used by labs all over the world."

Monika said such work is exciting but it's the patients and the great team of people she works with - the midwives, nurses, doctors and other lab staff - who make work special.

"I am in a very unique position as a scientist in that I actually get to see the patients we are treating," she explained.

"A lot of scientific work focusses on calibrations, dilutions and standard deviations. It's easy to lose sight of the fact that at the end of every laboratory barcode number is a human being.

"In my job I can never forget this. For almost every result I generate, I can put a face to it.

"Sometimes it's a face full of joy. Sometimes hope. Sometimes grief. This keeps my job very real to me every single day."

DID YOU KNOW?

The biological clock ticks for men too

- The notion that age-related fertility decline is only a female factor was debunked by a British study published in *Human Reproduction* in August 2000.
- Researchers at Bristol and Brunel Universities evaluated 8,500 couples to discover that while only 8% of men younger than 25 don't impregnate their partner after a year of trying, that increases to 15% after age 35.
- A more recent study by researchers in Iceland found that older fathers transmit more genetic mutations to their offspring. The effect, though small, grows with each year of age.
- Published in August 2012 at www.nature.com, the Decode Genetics team demonstrated that 97% of the rate of new mutations (or accidental changes in DNA that can prevent a gene from functioning properly) can be attributed to the age of the father.
- Male sperm-producing cells are constantly dividing. As a result the number of new mutations increases over time. The sperm of a 20-year-old man carries about 25 mutations; that number rises at a rate of 2 per year. The sperm of a 40-year-old man may have 65 new mutations. Females are born with a lifetime supply of eggs already in their ovaries and the number of new mutations a mother passes along is about 15, regardless of her age.

Since NSW Health Pathology was officially created just over two years ago we've developed our first five-year strategic plan, introduced new initiatives to improve patient care and customer service, and seen our staff achieve amazing things.

Here's a snapshot of just some of our collective achievements in the past year, mapped to the strategic plan's four priority focus areas:

Patients, Clinicians & Customers

- Expanded access to time-critical pathology tests by deploying point of care devices to more than 130 regional and rural emergency departments with more to come
- Created statewide Clinical Streams to further improve the quality, safety and efficiency of our services
- Commissioned new pathology laboratories at Lismore and Campbelltown hospitals, with more under development
- Unveiled a new chemical criminalistics unit, new DNA research laboratory and a refurbished automated DNA laboratory at FASS to help police solve crimes
- Delivered new technologies across our networks to improve turn-around times, increase throughput and enhance quality
- Drastically reduced or eliminated backlogs in toxicology, illicit drugs and post-mortem reports within our FASS network
- Changed billing practices to Medicare and various healthfunds to speed processing, reduce unrecoverable debts and increase patient satisfaction

Achievements and

Resource Accountability

- Maintained or reduced pathology prices from FY2011-12 levels for three consecutive years, helping ensure there's more money in the system for patient care
- Came in on budget during our first two years of operation
- Delivered roughly \$46 million in direct savings and avoided costs for the NSW Health system
- Developed a new procurement approach which includes collaborative tendering to reduce the cost of consumables, a statewide procurement committee, dedicated training for staff, and stronger, more beneficial partnerships with vendors
- Established a work health and safety framework that helped reduce our workers compensation premium by over \$1.5 million

Partnerships, Networking & Processes

- Established statewide working parties to improve processes and outcomes around procurement, capital planning and purchasing, IT systems, billing and revenue collection
- Involved staff in practical reviews to improve outcomes and overall value in areas such as logistics, equipment assets and more
- Networks have developed annual operational plans (with quarterly progress reports) to guide priorities and allocation of resources
- Invested in a range of corporate functions to improve support for our networks (human resources, recruitment, finance, billing, procurement, work health and safety, and workers compensation)

Our People, Culture & Capability

- Involved more than 1,200 staff in the development of our vision, values and strategic plan
- Created our first orientation video to show staff (new and old) why NSW Health Pathology is a great place to work
- Developed principles for a Research and Innovation Framework which will guide our approach to research in the future
- Established a Leadership Forum to engage our senior leaders and managers in achieving our vision

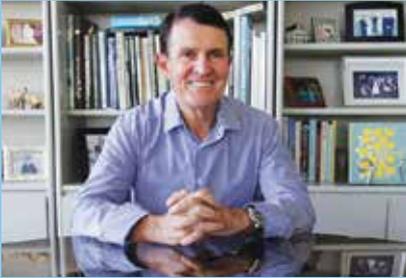


International publisher Wiley-Blackwell will soon publish a new book on bed bugs written by Pathology West experts.

Australia has seen a resurgence in bed bugs, with infestations growing by about 5,000% since 1999. Pathology West has been at the forefront of documenting the phenomenon and the new book will include the latest advice on ecology and control of this health pest.

Stephen Doggett, Pathology West Senior Scientist and principal editor of the text, said the book (to be published in 2015) will be the seminal text on bed bugs for decades to come. Contact: Stephen Doggett, 9845-7279 or stephen.doggett@health.nsw.gov.au

awards: a true team effort



Professor Denis Wakefield, Clinical Director of Immunopathology with our SEALS network, was made an Officer of the Order of Australia (AO) as part of the 2015 Australia Day honours.

He was recognised for his distinguished service to medicine, particularly in the field of ocular immunology and immunopathology in his capacity as a clinician, researcher and academic.



Dr Chris Ashhurst-Smith, Senior Scientist with our Pathology North network, recently received the 2014 Royal College of Pathologists of Australasia Outstanding Teaching Award for a Scientist.

The selection committee commended his patience, pleasant manner, passion and commitment to teaching and said that his love of microbiology is contagious.

The Department of Forensic Medicine (Newcastle) won the Innovation in Design category at the 2014 Treasury Managed Fund Awards for Excellence for its custom-designed post-mortem table which reduces manual handling injuries.

The team at the Department of Forensic Medicine (Sydney) was a finalist in the same category

for its automated formaldehyde system, which is designed to reduce exposure to potentially dangerous chemicals and improve the overall work health and safety of employees.

Contact: Catherine Foster-Curry, Director of Forensic Medicine: 4920-4010 or catherine.foster-curry@health.nsw.gov.au



A/Prof Judith Trotman, Minister Skinner and Roslyn Ristuccia (St George Hospital)

The haematology research teams at SSWPS (Concord) and SEALS (St George) helped develop the ClinTrial Refer App which won the Innovation in Clinical Trials Award at the 2014 NSW Cancer Institute Premier's Award for Outstanding Cancer Research.

The teams partnered with clinical research staff at the two hospitals as well as others across NSW to develop the free app which provides access to information about clinical trials across the NSW Haematology Clinical Research Network. Haematologists can find appropriate trials for their patients who can also download the app.

The app has driven collaboration between public and private haematologists and seen a 33% increase in recruitment to trials and a 30% increase in staffing for trials across haematology units in NSW. Increased access to clinical trials and emerging therapies for patients from rural NSW is another plus.

To-date the App has been duplicated for eight other Australasian cancer trial networks.

Contact A/Prof Judith Trotman, SSWPS (Concord): 9767-7243 or Judith.Trotman@sswahs.nsw.gov.au

FASS team clear illicit drugs backlog

'Justice delayed is justice denied.'

This might well be the motto of a team of highly-trained forensic chemists from the Forensic and Analytic Science Service's Illicit Drug Analysis Unit.

The team has kicked a winning goal in its service to the NSW Police Force, clearing a long-term backlog of illicit drugs cases by the agreed date of 31 December 2014.

The team had worked with Police since early 2013 to resolve approximately 2,500 unstarted cases. That number is now below 300 'standard' cases-in-progress, with targeted 28-day turn-around times.

Laboratory Manager Todd McBriar said the timeframe could be seen as an unofficial national benchmark for high-volume standard, routine illicit drug casework.

"The customer is very happy with the job we've done and 2015 will be about maintaining the gains and value-adding for our clients by applying efficiencies to other areas such as field operations," he said.



Tracie Gould, FASS



Douglas Curtis from the Illicit Drug Analysis Unit, FASS

Mr McBriar said the unit's success could be attributed to systematic efforts on a range of fronts. Work began in September 2013 to triage the backlog using a more methodical approach to eradicate any unnecessary exhibits, for example those with no evidentiary use.

Plans were then drafted to tackle the remaining backlog, which required new policies, guidelines, technologies and resources.

Workflow processes were assessed and revised and the unit's tertiary-trained scientific staff were supplemented with another seven temporary staff.

The roll-out to Police of new hand-held "Tru Narc" analysers for drug possession charges also helped reduce the backlog, allowing the unit to focus more on trafficable exhibits.

The unit ran the trial of the new equipment and trained Police to use the devices, before handing over the project to the NSW Police Force early last year.

Mr McBriar congratulated the team on its hard work: "I am very proud of them and the hard work and dedication they've shown to reach this target."

"It's been a very challenging time ... the team have had to be self-critical in order to improve and do better, and have remained positive in the face of that."

The unit examines illegal drug exhibits for Police and other clients. Most cases examined relate to charges including possession, supply, street-level dealing and some more sizeable seizures.

Take a tour of the intranet

The NSW Health Pathology intranet (launched in mid-January at <http://intranet.pathology.health.nsw.gov.au>) is a one-stop-shop to keep staff up to date with the latest news, help them connect with colleagues and make it easier to do their jobs.

The site's content and functionality will evolve over time based on staff input and operational needs.

Staff can find maps and news about networks, as well as updates on the latest key initiatives.

The site also provides an easy way for staff to find the pay, leave and other forms they might need.

Since the launch more than 1,500 staff have accessed the site and entered their details into our corporate directory – automatically putting themselves in the running to win an iPad mini.

The directory is a key feature of our intranet. However, in order to build an accurate and comprehensive directory, we need NSW Health Pathology employees to enter their contact details.

If you haven't provided your information yet, visit <http://intranet.pathology.health.nsw.gov.au> and log into the corporate directory (see the purple box in the top right corner of the home page) using your Stafflink user ID and password.

At this stage you don't need to enter your Stafflink user ID and password to access any part of the site other than the staff directory.

If you have problems logging in, notify the Statewide Service Desk on 1300 28 55 33.

For technical issues such as accessing video content or links, contact your local IT helpdesk or go to Key initiatives/Our intranet.



Find a person or event, read about the latest news or add your own message



Access over 60 links including LHDs, partner organisations and services



Search for a laboratory or collection centre



Keep up with the latest news



Access the leave, pay and other forms you need in one simple location



Read about the latest NSW Health Pathology initiatives and projects

Benefits flowing from new approach to procurement

A new approach to how we secure and manage whole-of-life-costs for essential equipment is reaping a range of benefits, including savings for NSW Health Pathology networks.

The equipment and consumables used across the NSW Health Pathology system make up roughly 20% of our total annual expenses, so there's a lot to be gained by improving purchasing practices.

Owen Hammond, NSW Health Pathology's Manager of Statewide Capital and Procurement, said the primary goal is clear: purchase the equipment that gets the job done and delivers the outcomes our customers need.

"If we can do that and make savings at the same time, then it's a win-win," he explained.

To help improve procurement practices, a number of initiatives have been introduced in the past year including a statewide Procurement Committee.

Made up of representatives from each of the NSW Health Pathology networks, the committee sets the overall governance that improves decision making when it comes to negotiating tenders, purchasing

equipment and reagents, and working with vendors on service arrangements. It also assesses the business cases for major investments proposed by networks or clinical streams.

Eddie Van Den Bempt, General Manager of Finance and Business Services for Pathology West, said his network has already seen direct benefits.

"We worked with the Procurement Committee to re-negotiate arrangements for some existing equipment," he explained.

"With the committee's help we moved from a long-term lease arrangement to an outright purchase and saved \$2.2m in operating expenditure over the life of the equipment.

"The purchase option was exercised at a discount to the total outstanding lease commitments and was a win-win for the vendors and Pathology West.

"That saving will stay with Pathology West and gives us greater scope to invest in other areas we might not have been able to if we'd kept the original arrangement in place."

Simon Holmes, Pathology North's Chief Business Officer and member of the Procurement Committee, said

the committee is an excellent forum for networks to share information and experiences.

"Simply knowing the procurement intentions and arrangements of other networks helps Pathology North refine our strategic procurement plans," he explained.

"It also enables more openness and transparency when negotiating agreements, whether they're state-wide or specific to Pathology North."

Mr Hammond acknowledges that new systems and approaches are big change for some but says the change is necessary.

"The days of special, one-off 'deals' that suit vendors more than they suit us have to go," he said.

"We have an obligation to make the very most of the resources we have.

"That means thinking about whole-of-life costs and not just the upfront capital, building more rigor into the decisions we make, and making sure our vendors provide true value in pricing and maintenance.

"Through the work of the committee and other efforts, we can deliver innovative, high-value services at more efficient costs."

Comment on *Compass*

We want *Compass* to be interesting, relevant and something you want to read.

Help us make future editions even better by sending in your ideas and feedback.

- Have a personal or team achievement you want to share?
- Working on a collaborative project that will make a positive difference to our public pathology, forensic or analytical science services?
- Know an interesting character to profile in our InFocus section?

Send your suggestions to the *Compass* editor at carina.bates@health.nsw.gov.au

Staff contributions are welcome but may be edited for length and publication style.

Editor: Carina Bates

NSW Health Pathology

Phone: (02) 4920-4041

Email: carina.bates@health.nsw.gov.au



**Health
Pathology**