Biomed Benchmark
News from Biomedical Science at Monash
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Biosciences buildings opened by Nobel laureate

On 18 February, 2009 Nobel laureate and Sir Louis Matheson Distinguished Visiting Professor Elizabeth Blackburn AC officially opened two School of Biomedical Sciences buildings in the presence of Professor David de Kretser AC, Governor of Victoria, much to the delight of Monash staff, executives and distinguished guests attending the event.

This landmark development would not have been possible without funding from several sources: Monash University provided $86.25 million for the project, the Victorian State Government contributed $10 million for the building fit out, and the Australian Government funded $2.75 million for building construction and research equipment.

Mr Tony Lupton MP, Cabinet Secretary from the Victorian State Government and Ms Anna Burke MP, Deputy Speaker of the House of Representatives and Federal Member of Chisholm, spoke of their governments' commitment to research and infrastructure funding. Meanwhile, the Faculty Dean Professor Steve Wesselingh emceed the event and introduced the VIPs.

Former Head of School, Professor Warwick Anderson AM and NHMRC CEO, who helped initiate the project, thanked former Monash Vice-Chancellor Professor Richard Larkins and his successor Professor Ed Byrne, then Faculty Dean, for their foresight and support. Professor Anderson's successor, Professor Christina Mitchell thanked her Monash team, who worked tirelessly behind the scenes to help her implement this vision.

Professor Blackburn, a third-time visitor to Monash since 2005, welcomed everyone to the new state-of-the-art research buildings that house 500 research and support staff in approximately 17,000 m^2 of space. She invited guests to tour the buildings with young researchers as their guides, to get a glimpse of the work they do and the environment that fosters new discoveries.

The building opening kicked off several Monash events in honour of Professor Blackburn. She presented a Dean's lecture about her Nobel prize-winning research; was keynote speaker at the inaugural Women in Research forum; met students and staff at the new John Monash Science School, a selective high school at the Monash Clayton campus; and attended research workshops, which were presented by postgraduate students and early-career scientists. Professor John Sedat, from the University of California, San Francisco, and Professor Blackburn's husband, also presented lectures here and in Sydney.

Professor Blackburn with School of Biomedical Sciences PhD students
Photo: Neil Bennett

During her whirlwind four-week visit, Professor Blackburn also attended events in Canberra and met with Prime Minister Kevin Rudd; presented lectures at the Pathology Update 2010 conference, and Universities of Melbourne and Sydney; visited Walter and Eliza Hall Institute of Medical Research; and attended State receptions at Parliament House and Government House, in Melbourne. Professor Blackburn also was inducted into the Victorian Honour Roll of Women by Victorian Minister for Women's Affairs Maxine Morand MP; attended an investiture ceremony hosted by Governor-General Quentin Bryce AC, where Professor Blackburn was appointed a Companion of the Order of Australia; and was interviewed by leading radio and newsprint journalists.

Professor Blackburn with Minister for Women's Affairs Maxine Morand MP (right) at the Victorian Honour Roll of Women reception

Photo: Department of Planning and Community Development/Vicki Jones Photography

Professor Blackburn (centre) at State Government reception with Minister Maxine Morand, Professor John Sedat, Premier John Brumby and Ms Rosemary McKenzie

Photo: Mark Farelly/Mark Farrelly Photography

Grants success

School of Biomedical Sciences researchers are successful recipients of $27.3 million of funding from NHMRC commencing in 2010. This includes support for 32 project grants, two development grants and 15 fellowships.

Professor Charles Mackay, a recent recruit to the School, was awarded the prestigious NHMRC Australia Fellowship and will receive $4.0 million of funding over five years to study how diet and gut bacteria impact on immune responses.

Professor Mackay also was awarded an NHMRC Development Grant to test a new treatment for fibrosis, a tissue scarring disorder. His colleague Associate Professor Ricardo also received a development grant to develop novel methods to promote organ development and growth in premature babies.

Two early-career scientists Drs Michelle Dunstone and Jinhua Li received NHMRC Career Development Awards. Dr Li also received two project grants totalling $1.0 million.

In addition, our researchers secured $4.0 million of funding from ARC. This includes support for 10 project grants and an ARC Future Fellowship worth $686,400 for Dr Jeremy Smith, who will study the role of kisspeptin and RFamide-related peptide in reproduction.

In breaking news, the ARC has funded a new Super Sciences Fellowship scheme to attract and retain outstanding early-career researchers in diverse fields, including: space science and astronomy; marine and climate sciences; and future industries research – biotechnology and nanotechnology. Of the 100 fellowships awarded, two School-led research teams have attracted $1.7 million in ARC funding to hire three research fellows each over a three-year period.

Beginning this year, Professor James Whisstock will lead a multidisciplinary group from the School of Biomedical Sciences, Monash Institute of Pharmaceutical Sciences, Faculty of Engineering and Melbourne Centre for Nanofabrication to use pore forming proteins as nano-delivery devices. The three successful fellows will receive mentoring and gain experience across engineering and biological research areas. Monash University will also support three PhD students, who will further bolster the translational research effort here.

In 2011, Professor Trevor Lithgow will lead a research team that will design and fabricate protein transport machines, which are commonly found in bacterial cell membranes and play key roles in bacterial function and disease formation. The three successful ARC Super Science Fellows will join research staff and students in the Monash Department of Biochemistry and Molecular Biology, School of Chemistry, NHMRC Program in Cellular Microbiology, and ARC Centre of Excellence in Microbial and Structural Genomics.

NHMRC Australia Fellow Professor Charles Mackay

New funding for Bio Electron Microscopy facility

Dr Georg Ramm is a happy man.

That's because he and his collaborating colleagues have secured almost $800,000 in funding from ARC and NHMRC infrastructure and equipment grants to upgrade the Bio Electron Microscopy facility at Monash Micro Imaging, on the Clayton campus.

"We will use the funding to buy several major pieces of equipment including a cryo-ultramicrotome to cut very thin sections of tissue samples, and a high pressure freezer, so we can fix cells instantly and get a snapshot impression of them," Dr Ramm says.

In addition, the cell biologist and Head of Bio Electron Microscopy is establishing immuno-electron microscopy here, so that Monash staff in the future will no longer be dependent on the limited availability of interstate collaborations.

Dr Ramm is excited about this development. "Immuno-electron microscopy allows us to see the layout of a cell in great detail comparable to the layout of a city on Google earth satellite images. We can pinpoint molecules onto cellular structures using gold particle markers, similar to flags on a map," he says.

"It's one of the best techniques to study the localisation of intracellular processes."

Also, Dr Ramm has received a strategic research grant from the Faculty, allowing him to develop correlative light and electron microscopy techniques here. "It's a laborious technique, but it enables you to combine live cell imaging with detailed pictures obtained by electron microscopy," he says.

Once the new infrastructure is in place, Monash faculty staff and affiliates will have the option to collaborate with Dr Ramm's team and receive high-end technical support, or use the electron microscopy facility independently following some training.

Dr Ramm says the upgrade is an important first step in the staged development of the unit into a cutting-edge biomedical electron microscopy facility.

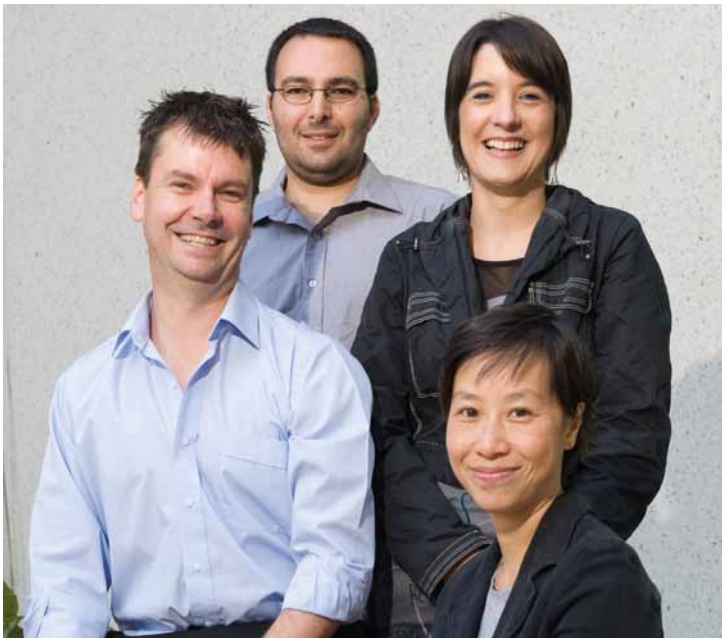
Dr Georg Ramm

News in brief

Professor Trevor Lithgow has been elected as Fellow of the Australian Academy of Sciences in honour of his pioneering work on microbial cell biology and genetics. Seventeen scientists were inducted into the academy on 24 March.

Professor James Whisstock has been awarded the prestigious 2010 Gottschalk Medal by the Australian Academy of Sciences. This prestigious accolade is awarded to a scientist under 40 years, who is conducting outstanding research in the medical sciences.

Dr Travis Beddoe has received a five-year, $1.0 million Pfizer Australia Research Fellowship to study the role of sugar molecules in bacterial function and disease formation.



From left to right: Professor Trevor Lithgow with Drs Kip Gabriel, Ana Traven and Terry Kwok-Schuelein

Of microbes and man

Professor Trevor Lithgow enjoys taking on challenging research projects.

With an ARC Federation Fellowship and other grants from the NHMRC and ARC to support him, the Department of Biochemistry and Molecular Biology scientist leads a team of researchers, who study the inner workings of bacterial pathogens.

He explains: "We're putting ourselves in the shoes of the microbe to understand what it does and how it interacts with human cells."

Professor Lithgow's group genetically knock out genes to search for mutants and pull apart 'bugs' to see how key protein molecules latch onto human cells. He's interested to know how bacterial protein transport machines are assembled into component parts, and how in concert they can pump toxic proteins across their membranes and infiltrate the metabolic centre of human cells, the mitochondria, or other cell structures, interfering with their normal function.

This work is fiddly as there's a small window of opportunity to observe these cells in action. But Professor Lithgow has a few tricks up his sleeve.

"If we know what stimulates the bacterium to put a protein transport machine together and artificially deliver proteins, we don't have to wait until it locks onto a human cell. We can provide that stimulus, and then image them," he says.

Professor Lithgow and three other researchers in the Department of Biochemistry and Molecular Biology have established the Molecular Biology of Host-Pathogens Interactions Unit at Monash. This Unit provides opportunities for students and research fellows in the four labs to interact and collaborate on projects focused on diverse microbial pathogens. The three other research groups in the Unit are lead by Dr Terry Kwok-Schuelein, who studies *Helicobacter pylori*, which causes gastric cancer and chronic inflammation in humans; Dr Ana Traven works with the fungus *Candida albicans*, which causes life-threatening opportunistic infections in immunodeficient patients; and Dr Kip Gabriel studies the impact of these pathogens on human cells.

Professor Lithgow, who moved from Bio21 to Monash in December 2008, is full of praise about the support he has received here.

"There are excellent people in the Departments of Biochemistry and Molecular Biology, and Microbiology, with whom we have forged new collaborations," he says.

"Also, the Monash Micro Imaging facility is one of the best in the country. Associate Professor Ian Harper and his team are helping us develop new ways to image bacterial and fungal cells and look at components within these tiny cells."

With everything in place, Professor Lithgow can tinker with the nuts and bolts, and cogs and levers of molecular machines in his high-tech 'shed' to see what he can find.

The secret life of viruses

Professor David Jans is fascinated by how complex, mammalian cells work and allow molecules to be transported into and out of the cell nucleus. So much so, that the dedicated scientist has devoted 25 years of his career post PhD to this question, studying diverse topics including sperm formation, rabies and DNA tumour viruses.

Now Professor Jans, from the Department of Biochemistry and Molecular Biology, can continue to add respiratory syncitial virus and Dengue to the mix, thanks to two new NHMRC project grants totalling $1.27 million. And he has a challenging task ahead.

That's because there are no vaccines nor effective treatments for these viruses, which can wreak havoc: respiratory syncitial virus is the major cause of viral pneumonia in infants and the elderly, causing more deaths in winter than influenza; and Dengue, which is transmitted by mosquitoes in rural and urban areas including South-East Asia and tropical Queensland, can escalate from a severe flu-like illness to the deadly dengue haemorrhagic fever form.

Also, respiratory syncitial virus and Dengue, like rabies, have developed wily strategies to survive. In particular, each virus sends a specific viral protein into the control centre of the cell, the nucleus, to try and switch off the cell's defence, which would otherwise try to thwart the infection.

"If we can understand how viral proteins go into the nucleus, we can come up with new strategies to treat these infections," Professor Jans says.

"If we can understand this process, and work out how to impair the ability of the particular viral protein to reach the nucleus and switch off the anti-viral response, then that virus could be a good vaccine candidate."

Fortunately for Professor Jans, he has a crack team of people collaborating with him: Dr Greg Moseley is working on rabies; Dr Renee Ghildyal is studying respiratory syncitial virus; Dr Kylie Wagstaff is screening for inhibitors of viral replication; Associate Professor Phil Bardin, from Monash Medical Centre, is providing valuable human clinical samples from respiratory airways; and Professor Ramesh Akkina, from Colorado State University, has an animal model of Dengue.

Professor Jans has three years to uncover the secrets of these formidable viruses, a challenge that he relishes. "I think we're on the right track with our vaccine approaches and new anti-viral strategies. It should be an exciting few years ahead."

Professor David Jans (seated) with his lab team

Overcoming career barriers

The issue of how women can successfully combine a research career with parenting and other family duties was addressed in two recent forums at Monash University.

The first meeting, entitled *The Turning Point*, was presented in December 2009 by Professor Laura Frost, a researcher and administrator from the University of Alberta, in Canada.

Professor Frost outlined the hurdles that many women face early in their career: they find it difficult to negotiate salary and lab set-up packages, they choose not to apply for faculty positions in order to stay within a 'safe' lab environment, and peers expect females to reach a higher standard of output compared with male counterparts.

Given that women score more highly on many measures, including the frequency of citations per publication, Professor Frost questioned why this bias persists. She believes there is no easy answer when many factors impact on an individual's capacity to run an independent research lab. But Professor Frost is convinced that the decision to leave full-time research is difficult to reverse, and hoped that her presentation would help guide policy at Monash to support women facing this career challenge.

Following the lecture, 30 participants took part in a workshop, sharing their successes and challenges. They left with the view that it is possible to create a work-life balance as parents with happy children who also produce excellent research.

This discussion continued at a public forum in March 2010 featuring the visiting professor and Nobel laureate Professor Elizabeth Blackburn AC and other eminent female scientists, who shared their personal and professional experiences juggling a career with a personal life. While each story varied, there were common themes: women receiving support and ignoring career stereotypes.

Associate Professor Rebekah Brown from the School of Geography and Environmental Science, a civil engineer, became interested in sustainability governance, a fledgling area that did not attract government funding. Undeterred, she sought industry funding for research that is shaping policy here and overseas, and attracting PhD students trained in physical and social sciences.

Chief Scientist of Australia, Professor Penny Sackett described her diverse career which included breaks between jobs when the next step was unknown. She conveyed her willingness to try new things, which included stints as a science journalist intern; PhD student; lecturing in diverse subjects such as physics, and race and sex at an American liberal arts college; varied postdoctoral studies; administrative work; and research experiences in the US, Netherlands and Canberra – not one of which led directly to her current appointment.

"If we do not support the full potential of women researchers, we will squander female talent and clip the wings of our partners and daughters," Professor Sackett said. "Let's put air under those wings."

Professor Kim Cornish agrees. A genetic disorders expert and Deputy Head of the Monash School of Psychology, Psychiatry and Psychological Medicine, she publicly thanked her husband who travelled from the UK to Canada and Australia to support her career, and spent four years caring for their two children.

"Go for it," Professor Cornish told the Women in Research forum audience, comprising nearly 1000 secondary school students, researchers and industry leaders. "Don't worry about what people think. Follow your dream and go for promotion."

But promotion of women into senior positions is problematic. Professor Blackburn noted how a talented female postdoc in her lab with a young child was reluctant to seek promotion. After attending a lab head leadership course at the University of California, San Francisco, the young scientist gained the confidence to take the next step.

Professor Laura Frost

Professor Blackburn spoke of her research career spanning several decades, and how the needs of family are relatively short in comparison. "Invest in the big picture," she said. "Don't let family get in the way."

Professor Margaret Sheil, CEO of the Australian Research Council, which funds medical research, cited

Professor Elizabeth Blackburn (centre) with Women in Research forum speakers and organisers. Photo: Neil Bennett

Australian statistics showing that women are less successful than men obtaining grants during their early postdoctoral years, and how their application numbers plummet from 10 years onwards. Even amongst those women who remain active in research, only a small proportion apply for competitive grants such as the ARC Federation Fellowship: seven times more male than female scientists applied in 2004.

The ARC is addressing this imbalance by replacing 'track record' with 'research opportunity' and 'performance evidence' in ARC grant applications, where researchers can discuss career interruptions. In the longer term, an easing of fellowship restrictions may occur and part-time fellowships may be considered.

Professor Sharon Bell, author of the Federation of Australian Scientific and Technological Sciences report *Women in science in Australia: Maximising productivity and innovation,* is cautiously optimistic. "We need to find solutions locally and change the context of where we work," she said.

The forum ended with questions from the audience wanting advice on how to preserve relationships, be confident, get promoted, score a family-friendly job, and choose a tertiary course.

Forum co-sponsor Professor Edward Snow, representing the Victorian Endowment for Science, Knowledge and Innovation, acknowledged that "we aren't using all the talent that we have". He also supported continuing discussion.

"This is a problem for all of society. The other half has to engage, and we need a paradigm that works for everyone."

Vicki Burkitt and Kate Loveland

The forum is podcast at: **www.monash.edu/publiclectures/past.html**

"If we do not support the full potential of women researchers, we will squander female talent and clip the wings of our partners and daughters. Let's put air under those wings."

Professor Penny Sackett

Women in Research forum audience. Photo: Neil Bennett

Professor Elizabeth Blackburn with students from John Monash Science School

Back to school for shining light of science

Students at the new John Monash Science School had a rare opportunity to listen to the person after whom one of their houses is named when Professor Elizabeth Blackburn visited to share memories from her own schooling.

Growing up in Tasmania as one of seven siblings, Professor Blackburn dived into the world of biology after becoming fascinated with the things around her, particularly animals.

"When I was at school, the thought of science was *okay*, but it wasn't something that people really thought a particularly important part of your education. In my own mind I developed an interest in science," she said.

"I had great education in things like English, but I had to go to the local high school to take physics classes in the evening, because they didn't have that at my school."

Her advice: keep asking questions, and choose research in an area that is not yet popular.

After her speech, the Nobel laureate signed the purple cape representative of Blackburn House.

Principal Peter Corkill said the school was privileged by her visit.

"For us, and for our community, we see you as a role model, and a shining light for what's possible when people follow their passion with equal measures of endeavour, work ethic and commitment."

Alexandra Roginski

T is for telomere and telomerase

When Professor Elizabeth Blackburn, PhD, began studying an obscure organism called *Tetrahymena thermophila* in 1975, she couldn't have foreseen where her journey would take her. For this expatriate Australian has taken the scenic route from Australia via Britain and American research labs to Stockholm, where she received a Nobel Prize last year for her discovery of an enigmatic enzyme called telomerase, work that continues today.

It turns out that telomerase protects chromosomes from being damaged when cells divide. It makes protective 'caps' called telomeres on the tips of these DNA-packaging structures, which are found in the nucleus of every human cell.

When telomerase levels are low, telomere length shrinks, cells are damaged and age-related diseases may occur. However, too much telomerase in cancer cells can be harmful, and cause cancers to run amok.

Also, chronic psychological stress can affect telomere maintenance in normal cells, with significant consequences as Professor Blackburn and her colleague at University of California, San Francisco, Associate Professor Elissa Epel discovered. They studied healthy pre-menopausal women, who cared for their chronically ill children, and compared their psychological and molecular profiles with age-matched mothers of healthy children.

What did they find? The longer a woman cared for her ill child, the shorter her telomeres became, with corresponding low levels of telomerase in immune cells - even accounting for other variables such as her age. Also, women with the highest levels of perceived stress had telomeres age 10 years compared to low stress counterparts.

"We did not add anything new to the knowledge of bad effects of chronic psychological stress," says Professor Blackburn, "but we added a set of numbers related to telomere maintenance that gave it a concrete focus."

Given that telomere length appears to be a biomarker for cell ageing, Professor Blackburn is interested how we can overcome the negative effects of stress and disease. Recently, she and her collaborators found that in patients with coronary heart disease, levels of dietary omega-3 fatty acids in their blood cells predicted telomeric ageing over five years. They found that individuals with high EPA and DHA levels (two important omega-3 fatty acids that come from fish) had less telomere shortening. It's unclear if study participants had higher levels because they ate more omega-3 fatty acids, or they better retain this nutrient than others.

Therefore, Professor Blackburn, Associate Professor Epel and colleagues at Ohio State University are now starting to study whether dietary fish oil supplementation might directly affect telomere maintenance, how it changes with time, and what happens when participants are told what their telomere length is.

Professor Blackburn acknowledges her supporters who had the foresight to fund her multidisciplinary research. "We started with seed funding for innovative ideas or interdisciplinary research, and philanthropy money. Once we started getting results, we applied for federal funding and are now funded like other research," she says.

"It's important that seed funding is made available and you're not penalised for being between two different disciplines. NIH is encouraging that. However, the peer-review process took a while to catch up, getting expertise from two different kinds of peer reviewers."

In addition to the multidisciplinary research, Professor Blackburn continues to ask fundamental questions: how does telomerase regulate telomere length; how does this link in with the cell cycle; why are telomerase levels high in cancer cells; why do small drops in telomerase levels switch on different cellular pathways, changing cells but not telomeres?

"We've found out what telomerase's day job is, which is polymerising DNA. But it has been moonlighting and doing other things as well," she says.

"Other proteins have multi-functioning roles. So this realisation about telomerase isn't surprising. This is an emerging field."

It's difficult to imagine Professor Blackburn, 61, retiring while she still gains pleasure from scientific enquiry, and her canvas isn't completed. So, what advice does this trailblazer have for students interested in medical research? "Look for people doing very good science."

But how can women with families overcome barriers and become leading researchers like her? Start with excellent childcare, says Professor Blackburn. She cites a subsidised childcare scheme set up by Princeton University in the US, which allows women to take up emergency childcare with participating agencies when their child is ill, or for other purposes. The American Society for Cell Biology also has a fund supporting women attending their conferences, so children can be cared for during this time.

"It's crazy to lose all those decades of productivity, creativity and contribution because there have been periods when there is an intense need not to be at work," says Professor Blackburn.

"You have to think about this as an investment in people, and have positive support from guys, realising this is important."

Professor Elizabeth Blackburn. Photo: Neil Bennett

Stroke-busting research

Sometimes research can take scientists along unusual paths.

Just ask Associate Professor Chris Sobey, a stroke researcher from the Department of Pharmacology.

Thanks to an $882,500 project grant from the NHMRC, he will team up with Dr Melanie Pritchard from the Department of Biochemistry and Molecular Biology to test the role of a Down syndrome-related protein in stroke.

That's because these two scientists and their PhD students, Vanessa Brait and Kate Martin, have found that Dr Pritchard's Down syndrome-like, genetically-modified mice, which produce high levels of DSCR1 protein, are less impaired after a stroke than normal mice – and may provide valuable clues about how to minimise the impact of stroke.

The major anti-stroke drug – a clot-buster – can be used to treat this devastating disorder. However, it must be given within 4.5 hours of a stroke taking place, which excludes most patients.

"The sky's the limit at the moment because there's nothing that works clinically," says Associate Professor Sobey.

"There's possibly a window of opportunity of up to a few days after a stroke where we can try and switch off some of these damaging processes.

"We believe that DSCR1 is probably inhibiting inflammation in either neurons or immune cells called T-lymphocytes. We will take T-cells from mice not expressing this gene and transplant them into transgenic mice to see where the protection occurs."

Associate Professor Sobey, who has also received a $560,000 five-year NHMRC Senior Research Fellowship and leads a team of 22 people, is taking a multi-pronged approach to stroke research, with a strong emphasis on drug development. Together with his colleague Dr Grant Drummond, and Professors Arthur Christopoulos and Patrick Sexton from Monash Institute of Pharmaceutical Sciences, he is also developing inhibitors of the enzyme NADPH oxidase to reduce the levels of free radicals to normal levels following strokes and heart attacks, and lower the risk of complications.

It's early days yet, but Associate Professor Sobey isn't perturbed. "There's an enormous need for new treatments, which target harmful cells in a more selective way," he says.

For more information:
www.strokefoundation.com.au

Associate Professor Chris Sobey

Dr Nic Price

Making sense of vision

Imagine this scenario: You're driving a car along a freeway when the traffic ahead starts banking up. To your left and right, cars are darting by at different intervals. When do you make your move, change lanes and at what speed?

You make a decision based on what your eyes see and brain perceives, from the neurons that respond to specific colours to those that track shapes, orientation, position and speed, in order to build up a picture of that environment.

This is a complex task, one that Dr Nic Price will try to tease apart, thanks to a $300,000 USD Career Development Award from the International Human Frontier Science Program Organization, which will allow him to study how neurons in the brain contribute to visual perception at the Department of Physiology.

Specifically, Dr Price is interested in motion-sensing neurons that reside in the middle temporal area of the brain called MT. How do they respond to different object speeds or directions? How reliable are their responses? Do they make mistakes? Do their responses change over time, or depend on learning?

To answer these questions, we need to decipher what neurons are doing in real time. How? Dr Price explains: "We train macaque monkeys to play computer games, where they track moving objects on a screen by moving their eyes, and tell us how fast these objects are moving."

"By recording from hundreds of motion-sensitive neurons while the animals engage in these games, we can understand how the brain responds to different visual stimuli, how these responses are used to control eye movements, and how conscious perception depends on different patterns of neuronal activity."

Ultimately, Dr Price hopes that by better understanding how information is processed in the brain, he can help improve the design of a bionic eye being developed by a Monash team to help blind people see again.

Given the complex nature of perception, it's amazing that we can successfully navigate the world. So next time you're changing lanes in peak hour traffic, thank your trusty neurons for leading the way. They will help with decision making and guide you safely home – well, most of the time.

Confessions of an event planner

What happens when a scientist is asked to help organise the Dean's Ball? As Dr Sheena McGowan discovers, it's controlled chaos behind the scenes and not a job for the faint-hearted.

First things first, I am a real scientist: lab coat, sensible shoes, and my time is spent somewhere between my computer, my lab and the Australian Synchrotron, down the road from Monash University.

However, I have also been part of the Monash Science Society that ran large affairs called balls. So when Professor James Whisstock wanted help for the inaugural Dean's Ball, I happily volunteered to be on the organising committee and be the event person on the night. After all, how hard can it be?

I realised how wrong I was three days before the event. After the last email around 11 pm, my inbox was full and I started panicking: "The band wants low-carb food and how many bottles of water?"

"I have to be ready at what time and meet the photographer? Oops, I forgot to book the photographer.

"Who needs extra tickets? I have to call?

"Who are the extra special VIPs and why can't they sit at any table?"

OK, one thing at a time. The venue is organised, so I need to check on the entertainers, DJ, audio company, photographers, dietary requirements, and buy low-carb snacks and water for the musos. I also need a dress. No worries, got it sorted.

Then my phone rings and it's the Australian Synchrotron – who I had been pestering for unscheduled access to finish an experiment I desperately need to get data for – and the friendly, beamline scientist says: "Sheena, it's free for the next 18 hours. All yours."

Excellent. I go to the synchrotron, collect my data, and call people.

At 7 pm the night before the ball, I'm trying to collect synchrotron data while answering my mobile phone to suggest what is appropriate 'after 5' attire to senior male academics, and curbing the rising panic. At 10 pm, my phone went flat and at 3 am I decided it was time to go home.

On event day at 7 am, the emails started arriving with last minute ticket requests, seating changes and dietary requirements. Despite all the drama leading up to the event, the night was a huge success. We had 243 attendees representing the diverse and large faculty. Guests enjoyed a three-course meal with entertainment ranging from a Monash University student string quartet to a musical show *Seriously Something*, from four of Australia's leading male cabaret performers, before a DJ got everyone dancing the night away.

Next year's event will be much anticipated. However, I might quit while I'm ahead and retreat to the lab. Event planning is more stressful than medical research.

Sheena McGowan

ABOVE: At the Dean's Ball

ABOVE: Performers Seriously Something
BELOW: Pre-Ball drinks

Photos: Paul Philipson/Paul Philipson Photography

Dr Sheena McGowan

About Sheena

Sheena McGowan received her PhD in Microbiology in 2004 for research into a toxin regulator from the bacteria that causes gas gangrene. Currently, Sheena is a post-doctoral researcher at the Department of Biochemistry and Molecular Biology. She studies the structure and function of key enzymes from *Plasmodium falciparum* to identify new treatment approaches for malaria.

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