What would you do with $5.4 million dollars for your research? A life changing sum in most people’s language. With the assistance of a newly awarded NHMRC Program Grant, Andrew Lloyd and his team will be endeavouring to improve the lives of over a quarter of a million Australians and many more worldwide.

The aim of Program Grants is to provide support for teams of high calibre researchers to pursue broad-based, multi-disciplinary and collaborative research activities. Teams are expected to contribute new knowledge at a leading international level in important areas of health and medical research. The scheme supports research in biomedical, clinical, public health or health services areas, and is typically for five years.

In the highly competitive environment of NHMRC grant funding, it is gratifying to see successful collaborations. Andrew, along with Greg Dore from the Kirby Institute at UNSW has teamed up with Jacob George from the Westmead Millennium Institute and Michael Beard from University of Adelaide and were awarded a Program which aims to im-
prove our understanding of hepatitis C virus (HCV) infection. The funds provided by the Government will allow the researchers to study the virus and the immune response against it, and to use this information in the development of a preventative vaccine and better treatment.

Taking on a pandemic is no small task. Hepatitis C infection continues to expand globally with 2-3% of the world’s population already infected. Approximately 264,000 Australians have first-hand knowledge of HCV, and this figure is indexed to rise by almost 10,000 new cases of infection every year. Most cases are associated with contaminated injection devices – associated with injecting drug use, tattooing or other blood-to-blood contacts. Once transmitted, the virus persists and causes chronic hepatitis in 50-80% of cases. For each decade of persistent infection, patients face increasing risks of cirrhosis, liver failure and hepatocellular carcinoma.

The current standard of care for treating chronic HCV infection is combination therapy with pegylated interferon and ribavirin which cures about 40% of those treated, although the treatment causes significant side effects and takes 6-12 months to complete. The fortunate individuals who achieve clearance gain improved liver function, quality of life and productivity. However, current statistics reported by Greg and his group from the Kirby suggest that only about 5% per cent of sufferers in Australia, that is around 13,000 individuals, have received antiviral treatment to date.

This is where Andrew and the Program team wade in: “Better strategies are needed both to prevent new infections and also to treat the disease,” he says. “One goal of the Program is to translate basic research findings regarding the way the virus evolves and the way the immune system responds into a vaccine – which is really the major goal for successful prevention.”

For those already infected, the team is working on strategies to both improve treatment success and also to facilitate better treatment uptake. “We are very fortunate that there is an explosion of new antiviral treatments which will become available over the 3-5 years – these agents will allow well tolerated and short duration treatment with very high cure rates” Andrew suggests. A real challenge that the team plans to face head on is that many patients with chronic HCV are socially marginalised – injecting drug users and prisoners are high on the list. Nevertheless, the team has considerable experience in delivering treatment to these populations – Andrew has been doing clinical work and research in the NSW prisons for almost two decades.

Whatever way you slice it the NHMRC funding will be well spent in finding a cure for such a world-wide health problem.

There’s a lot you should know about Hepatitis C.

Like the fact it can be treated.

WHERE’S THE SHAME, LOVE YOUR LIVER!

SHAME SURROUNDS HEP C BUT WE NEED TO TALK ABOUT IT

School of Medical Sciences Newsletter Jan / Feb 2013
Congratulations to the members of the SoMS community who were honoured for their contribution to the School

The SoMS Staff Awards were announced at the 2012 year of end celebrations that took place in the Mathews Pavilions last December.

The Awards went to:

- Stewart Head - Teacher of the Year
- Parsie Polly - Community Engagement
- Julie Hatzii - Distinguished Administrative Staff
- Lu Liu - Contribution to the Student Experience
- Martin Bendink - Conjoint or Sessional Teacher of the Year
- Vincent Strack - Distinguished Technical Staff Award
- Nalini Pather - New Teacher of the Year
- Gary Housley - Researcher of the Year
- Katharina Gaus - Wakefield Award for Higher Degree Research Supervision
- Richard Vickery - Safety Culture
- Vanessa Sequeira - New Researcher of the Year

2012 SoMS Staff Awards

Staff Achievement

Jan / Feb 2013

School of Medical Sciences Newsletter
The Faculty of Medicine is not the only Faculty within the University to recognise the contribution made by SoMS staff members. Carmen Robinson was honoured, as a part of the BSB Student Office, by the Faculty of Science in 2012. She, along with the other members of the BSB Student Office, won the Faculty of Science Staff Excellence Award for Professional Staff. The Award was presented at the Faculty of Science end of year function on the 12th December 2012.

“I was extremely happy to win this award. It was more meaningful than a personal one as I believe it shows our team spirit and support of each other – and of course the students! It was bittersweet as well with the knowledge that Matt is leaving our office for Burrumbuttock, Jonathan is leaving for BEES postgrad duties on the 5th floor and since receiving the award Kerrie has left for the Journalism and Media Research Centre. I think this means we received it in the nick of time,” said Carmen.

Missing on the day from the BSB Student Office were: Caroline Hueston and Sarah Patterson.

The BSB Student Office is the first point of contact for students enrolling, or thinking of enrolling in, BEES (School of Biological, Earth and Environmental Sciences), SoMS or BABS (School of Biotechnology and Biomolecular Sciences) programs. The team also manage academic and administrative tasks that focus on student/teaching interests.
Students Are the Real Winners!

Learning and teaching awards are an important part of recognising the contributions of staff within the university. They promote scholarly teaching, program excellence and initiatives that enhance learning. There are a number of awards in this field in any academic environment, the pinnacle at UNSW is the Vice-Chancellor’s Awards for Teaching Excellence and the Vice-Chancellor’s Awards for Initiatives that Enhance Learning. These are the ‘Oscars’ of the UNSW award season. Both Awards are designed to highlight the fundamental importance of teaching.

Patsie Polly and Mark Hill were honoured for their ongoing commitment to student outcomes and program development. They both received an Award for Initiatives that Enhance Learning.

Dr Polly and Ms Jones have been empowering undergraduate science students in research communication skills in Pathology since 2005. Second and third year undergraduates explore the ‘role of the researcher’ when developing written and oral academic literacies. Collaboration has enhanced student learning by using innovation in curricula, learning and teaching with focus on assessment strategies set within a research community of practice. This novel approach has resulted in building student confidence and enhancing performance in written and oral research communication skills.

“What a thrill for us to have received the Vice-Chancellor’s Award for Initiatives That Enhance Learning! This award is important in that it recognises mutual expertise and our own collaboration and the key roles that communities of practice and collaboration play for student learning. Our practice has successfully enabled undergraduate students to develop the understanding and communication skills for what it means to be a researcher,” Patsie said.

Since 2009, Dr Hill has developed and maintained an innovative embryology and cell biology Wiki, which has changed how those disciplines are taught at UNSW for both Science and Medicine students. This innovation greatly enhances flexibility for students - they have continuing access to the Wiki, which has built in features to promote interactivity and collaborative learning. His work has resulted in peer-reviewed publications, as well as an OLT Citation for Outstanding Contributions to Student Learning in 2011. His innovative design of the Wiki for which inspires undergraduate students to become engaged with conceptually difficult material, and indeed to produce material for peer teaching; The positive impact of the Wiki on learning outcomes and student evaluations in cell biology courses; The uptake of his approach by international collaborators, testifying to the breadth of impact of his innovation.

“I am very pleased to receive this VC award which recognises my own development of just one of the many new educational technologies being developed by SOMS staff that showcase the flexibility of our educational pedagogy and leadership in teaching research,” said Mark.

Whatever the future the teaching we can be assured that SoMS staff will continue to influence, motivate and inspire students to learn.

“I am not a teacher, but an awakener

Robert Frost
Making the Connection

Video conferencing stands out as a rich communications technology that offers new and interesting possibilities for distance education. It can go a long way toward building relationships and supporting collaborations, as well as improving retention and appeal to a variety of learning styles.

Derek Williamson

The Museum of Human Disease is leading the way with educational video conferencing. This new and innovative technology has been embraced for the past two years by the Museum. The future indicators predict a huge increase in the use of this telecommunications technology.

Approximately 9,200 high school students came to visit the Museum of Human Disease in 2012. In addition to this number, approximately 1,000 students participated in video conferences run by the museum during the year.

The museum started video conferencing to schools in 2011, but significantly expanded its video conferencing program last year. 21 different speakers, mostly academics and students from the School of Medical Science, kindly volunteered their time to talk with students at 33 different schools around the State.
The video conferences are designed to cover syllabus-relevant content for HSC Biology, HSC Senior Science, HSC PDHPE and Junior Science students. Speakers talked about a range of topics, including kidney function, blood donations, keyhole surgery, the adaptive immune system, and vaccination.

A panel of academics and PhD students also contributed to a special careers panel for National Science Week, to explain to students what it was like to be a scientist. Ruth Miller, an education officer at the museum, provided HSC revision and exam tips for students at eight schools.

The museum has also started to run dissections via video conference to show students the difference between healthy organs and diseased specimens. These dissections have been well received by schools that have participated so far:

Using video conferencing, we were able to reach schools, which simply would not normally come to the museum, because of travel distance and costs. Other schools who did visit the museum still chose to supplement their visits with a video conference to reinforce learning outcomes.

Despite occasional technical glitches, the museum’s video conferences have been very successful. Speakers have enjoyed the challenge of explaining their research topics at a level that high school students can understand, and students engage well with the speakers, answering their questions and asking their own.

The museum is excited to extend their reach with video conferencing both interstate and internationally, one Iowa school is already booked for late January. If you are interested in participating in the museum’s video conference program for 2013, either as a speaker or as an audience, please contact Bridget Murphy (b.murphy@unsw.edu.au) or drop in to the museum.

“ That was AWESOME! Technically it worked very smoothly and was a wonderful compliment to our class work. The girls responded warmly and you brought out lots of their understanding, as well as extending their knowledge. Thanks, let’s do it again sometime.”

D. Moffitt
PLC Armidale, (Heart and respiratory disease video conference, 2012)
10 Things You May Not Know About Vanessa Sequeira

Do you have any pets?
→ I adopted a miniature fox terrier puppy 10 years ago after it was abandoned.

What is your favourite food?
→ I am a terrible cook but I love to eat Japanese food.

Have you ever met a famous person?
→ I recently saw Barack Obama at Arlington Cemetery in Washington DC at his Memorial Day address.

How do you spend your free time?
→ At Balmoral beach in summer and skiing in winter.

If you could live anywhere in the world for a year, where would it be?
→ Soho, New York City- the best city to chill out or to party.

Complete the statement: “I recommend…” (it can be a show, movie, book, restaurant, activity, etc)
→ I recommend breakfast at Swell Restaurant

Bronte, lunch at Bathers Pavilion Balmoral, a wine at the Opera Bar, dinner at Est, cocktails at Victoria Room.

What were the last books you read, movies you saw, TV shows you watched (pick one or all)?
→ The last three movies: Argo, Skyfall and Jack Reacher.

If I could be anyone besides myself I would be…?
→ Richard Branson- he is a visionary, philanthropist and has a lot of fun.

If you had to sing a karaoke song what would it be?
→ Dance with Somebody by Whitney Houston – but I would need a few wines before I try the falsettos in public.

What are you currently reading?
→ White Butterflies- an autobiography of a young boy’s wartime struggle for survival and his escape along one of the world’s deadliest refugee trails.

Vanessa is a Post Doctoral Fellow within the Department of Anatomy in the Cellular and Genetic Medicine Unit.

Her research focuses on screening compounds which target the actin associated protein, tropomyosin, in order to break down specific actin filament populations which are essential for tumour cell development.

Vanessa can be emailed at v.sequeira@unsw.edu.au

Vanessa won the SoMS Staff Prize for New Researcher of the Year.
The University of New South Wales has welcomed the state government’s announcement that it will build a light rail line to UNSW

The new mass transport system linking the Sydney CBD with Randwick via Central was announced on the 13th December 2012 as part of the NSW Transport Master Plan.

“This is one of the most significant pieces of infrastructure supporting UNSW in its 60-plus years of operation,” Vice-Chancellor Professor Fred Hilmer said. “This important decision opens access to UNSW and new opportunities for thousands of students from around Sydney, including the western suburbs, who have found the commute to campus just too difficult.”

UNSW is currently the only university in Sydney without rail access despite its Kensington campus being the biggest in the state with more than 50,000 students and staff.

“I congratulate the O’Farrell government for giving light rail the green light in its first term and I have no doubt it will be highly valued by all users.”

The South East Light Rail will include stops at major sites including the Sydney Cricket Ground, Sydney Football Stadium, Moore Park, the Royal Randwick Racecourse and the four major Randwick hospitals.

“With around two-thirds of the route able to be built on a dedicated corridor along Anzac Parade, we were always confident light rail was deliverable,” Professor Hilmer said.

Construction on the South East Light Rail will take place in stages and is expected to take between 5 and 6 years to complete.

The light rail solution is about the right transport mode for the right task. One light rail vehicle has capacity to move up to 300 people - compared to a bendy bus which can move up to 100 people. Light rail is reliable - with a forecasted 97 per cent of all services running with 2 or 3 minutes of the timetable. Currently, only 19 to 34 per cent of buses achieve this in the Anzac Parade and CBD corridor.

Bibliography

*Sydney’s Light Rail Future, Expanding public transport, revitalising our city, NSW Government*
Gain New Insights
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On top of allround laser scanning microscopy, you see fluorescently labeled structures down to a depth of one millimeter in living tissue.

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If you would like to learn more about the LSM70 please contact Jeremy Pinyon at j.pinyon@unsw.edu.au.

Location: Level 3 TNF, Wallace Wurth

Professor Andrew Lloyd is an infectious
diseases physician, immunology
researcher and Director of the
Inflammation and Infection Research
Centre at the University of NSW. He
is an NHMRC Practitioner Fellow. He
leads a research group studying
epidemiological, clinical and basic
science aspects of hepatitis C infection
with NHMRC-funding (Program,
Partnership, Project grants) supporting
the field and laboratory studies linked
to the HITS-p cohort (Hepatitis C
Incidence and Transmission Study in
prisons) and an innovative nurse-led
model of hepatitis treatment in the
prison setting. He was awarded an
Australia Medal (AM) for his work in
establishing the hepatitis service in
the NSW prisons and for his research
achievements in infectious diseases.

“Bloody prisons - risky behaviour,
hepatitis viruses and prevention
possibilities”

Wednesday 20th February
4 - 5pm
Level 4 Lowy Seminar Space
Lowy
Light refreshment served after event
RACI Biomolecular Division Conference
"Biomolecular in the Bush"
2013

The conference will be held at the Fairmont Resort Blue Mountains in the World Heritage listed Blue Mountains National Park, New South Wales, Australia.

CONFERENCE THEMES

Medicinal Chemistry
Chemical Biology
Drug Discovery

PLENARY SPEAKERS

ANDREW ABELL, Australia, BEN DAVIS, United Kingdom, JOHN FLYGARE, USA, RICHARD A. GLENNON, USA, STEFAN KNAPP, United Kingdom, JENNY MARTIN, Australia, LISA MARCAURELLE, USA, RONALD QUINN, Australia

INVITED SPEAKERS

CHRIS BURNS, Walter & Eliza Hall Institute, VIC
MARY COLLINS, The University of Sydney, NSW
ADAM MCCLUSKEY, The University of Newcastle, NSW
EMILY PARKER, The University of Canterbury, NZ
MATTHEW PIGGOTT, The University of Western Australia, WA
SALLY-ANN POULSEN, Griffith University, QLD
MARTINA STENZEL, The University of New South Wales, NSW

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REGISTER AND SUBMIT your abstract NOW!
BRIL MRI Seminar

Tuesday 12 February 2013, 9.30am
Level 4, Lowy Cancer Research Centre, UNSW
(followed by refreshments)

Professor Matthias Guenther
University of Bremen, Germany

“Non‐invasive Perfusion Measurement with MRI: Principles and Applications of Arterial Spin Labeling”

The talk will give an overview about current MRI methods of perfusion imaging and will explain the principles and advantages of Arterial Spin Labeling methods as well as current developments in the field.

For more information, please contact Andre Bongers (email: andre.bongers@unsw.edu.au, mob: 0451 015 799) or look in www.bril.unsw.edu.au
**2nd Cell Architecture in Development and Disease Symposium**

**Monday, February 11, 2013**  
8:30 am - 3:00 pm

Lowy Research Centre, Level 4  
UNSW, Sydney

**Program**

8:30 am  Welcome, Thomas Fath (UNSW, Sydney)

8:40 am  Teresa Bonello (UNSW, Sydney)  
‘Characterising the impact of tropomyosin-targeting compounds on the actin cytoskeleton’

9:00 am  Siti Ngalim (UNSW, Sydney)  
‘The biomechanical properties of cell migration in the presence of immobilised cues, soluble cues and variations in between’

9:20 am  Iman Jalilian (UNSW, Sydney)  
‘Actin filaments play a fundamental role in determining the mechanical properties of cells’

9:40 am  Dirk Winnemoeller (Miltenyi Biotec)  
‘Standardization of tumor dissociation allows improved cancer stem cell enumeration and isolation enables cross comparison among different tumor entities’

9:50 am  Morning tea

10:20 am  Dominic Ng (University of Melbourne)  
‘Mechanisms integrating cell signalling and microtubule transport for cell division: insights from the study of a new microcephaly protein’

11:00 am  Mate Biro (Centenary Institute, Sydney)  
‘Polar actomyosin contractility destabilizes the position of the cytokinetic furrow’

11:20 am  Naisana Asli (Victor Chang Cardiac Research Institute, Sydney)  
‘Signaling Networks in Adult Cardiac Stem Cell Regulation’

11:40 am  Melissa Desouza (UNSW, Sydney)  
‘Determining the role of tropomyosin in actin-mediated apoptosis’

12:00 pm  Lunch

13:00 pm  Lars Ittner (Brain and Mind Research Institute, University of Sydney)  
‘The role of tau in post-synaptic signalling’

13:20 pm  Hilke Wobst (UNSW, Sydney)  
‘The neural cell adhesion molecule (NCAM): molecular mechanisms of its transport to the cell surface during neuronal differentiation’

13:40 pm  Roland Brandt (University of Osnabrueck, Germany)  [sponsored by ASBMB]  
‘Tauopathies - mechanisms and models’

14:40 pm  Closing remarks, prices and drinks

**Registration is free - please RSVP**  
by e-mail to Thomas Fath (t.fath@unsw.edu.au)
Information Day was held on Thursday 3rd January, our second day back at work. Initially I only had one volunteer but one short email on the morning of the 3rd did the trick and I had 2 or 3 academic staff present all day. We were all kept busy with plenty of questions from students, their parents, their siblings and their friends – it takes a village. Overall I think the day was a success from both sides of the table.


Anyone moving into the refurbished labs in 2013 must have completed PC2 Biosafety training. If you haven’t yet completed this enrol into one of the upcoming courses, be quick as these fill up quickly, available dates are 20th Feb, 14th March, 26th March, 17th April, 23rd May.

In 2013 all of the Honours students health and safety training is now online. They have been enrolled into Health and safety awareness online, Ergonomics online and Lab safety awareness for students online. Any volunteers or visitors working in 2013 need to be enrolled onto these training courses, email their z-ID to ohs@unsw.edu.au and check the SoMS Work Experience Volunteers/Students Protocol.

The emergency flipchart has been updated to include how to deal with a suspect package, power outage, hazardous material, environmental and natural disasters; make sure to familiarise yourself with the new advice.
On the Lighter Side

My friends, as a result of our experimentation, we have just lost a dear and valued colleague...

On the other hand, we have just gained a publication.