Australia and New Zealand
Society for Cell and Developmental Biology
INCORPORATED

NEWSLETTER - December 2009 Volume 3 of 3 www.anzscdb.org

Edna Hardeman

Our main efforts over the past year have focused on two goals, one being to re-invigorate our activities at the local and state level and the other to raise the profile of the Society, both of which yielded rewarding results. Much of this involved refining our website http://www.anzscdb.org/ to reflect changing demands, initiatives and the role of the Society and I am indebted to Ros Barrett-Lennard (MTCi) and Geraldine O'Neill for their significant, continuing involvement.

State/NZ Chapter Activities:

In response to suggestions from state/NZ representatives, we designed a program to support local and state Cell and Developmental Biology themed activities. Geraldine O'Neill took charge of revising the appointment of our representatives and defined responsibilities, the paramount being convening or sponsoring local meetings in our disciplines. This year most of our state/NZ representatives availed themselves of funds earmarked for such activities http://www.anzscdb.org/ANZSCDB-Grants.html to hold successful meetings. Well done!

19th Annual Combined Biological Sciences Meeting – Megan Lloyd, August, University of Western Australia, Perth WA; QMB Developmental Biology Satellite Meeting – Christine Jasoni, September, Queenstown, NZ; 2nd Melbourne Cell and Developmental Symposium – Kieran Harvey and Ian Smyth, November, Peter MacCallum Cancer Centre, Melbourne VIC; NSW Cell and Developmental Biology Meeting – Thomas Fath (organising member) November, Garvan Institute of Medical Research, Sydney NSW

Membership of the Society – JOIN US!:

Boosting our numbers is absolutely essential and is seen by the Executive as our major goal for 2010. I ask that all heads of labs take a simple first step – encourage your students to join. We are actively promoting the Society through promotions at sponsored meetings and importantly, Magic Touch Consultancies has initiated a four step program of tracking memberships to ensure that we are constantly capturing every opportunity to encourage renewals and new memberships. The Executive will pursue membership – Ordinary, Student and Corporate – during the next year. Increased revenue will be used in the first instance to support PhD/postdoc travel scholarships to national and international meetings.

Society Awards:

The President's Medal is the highest honour that our Society bestows and I was delighted to announce that the 2009 recipient is Richard Harvey from the Victor Chang Cardiac Research Institute. Richard is an internationally recognised leader in developmen-

IN THIS ISSUE

President's Report

tal biology and a past President of ANZSCDB. Richard is the first recipient of our newly minted version of the President's Medal struck at the Canberra Mint which was presented to him at ComBio2009 prior to his excellent plenary lecture: The Developing Heart – Ancient Core, Fragile Form. We are extremely pleased and honoured that Sigma-Aldrich has agreed to continue their sponsorship of the President's Medal for 2009 and thank Ira Mautner, Sigma-Aldrich New Zealand Manager for presenting Richard with the award.

The Young Investigator Award was initiated to acknowledge achievement and the successful establishment of an independent career in our disciplines, with a deciding factor being past or current service to the Society. The YIA entered its second year with nominations taking place in November and the selection committee convening in December. As with the previous year, the applicants were outstanding and the committee selected dual awardees: Ruth Arkell (ANU) and Kieran Harvey (Peter Mac). Kieran received his award, a beautiful hand blown & cold worked glass artwork, at ComBio2009 in Christchurch, NZ and spoke in the Developmental Diseases Symposium. During the year, he presented his work at two institutional research seminars under the auspices of the ANZSCDB YIA: the Brisbane Developmental Biology Seminar Series and the Garvan Institute (Sydney). Ruth also chose to present at the Brisbane Developmental Biology Seminar Series, but deferred the remainder of her YIA entitlements until 2010 in order to attend to a greater reward, the birth of her beautiful daughter Sophia. Ruth will receive her award and present her work in the Patterning and Morphogenesis Symposium at OZBIO2010 in Melbourne. We are indebted to Carl Zeiss Australia who will continue to sponsor the award for 2009 & 2010 and to David Flood for presenting the award to Kieran.

Scientific Meetings.

COMBIO continues to be our Annual Scientific Meeting and this year was held in Christchurch, NZ. Peter Koopman, Peter Gunning, Ian McLennan and Phil Crosier organised a brilliant Cell & Developmental stream and we are indebted to them for securing 4 top plenary speakers. We thank the symposium chairs for their hard work organising the 8 outstanding symposia. In keeping with the tradition (!) established at COMBIO2008, we held our Society dinner at 'The George' which provided an excellent venue to catch up with colleagues in a relaxed and lovely setting.

Registration and abstract submission for OZBIO2010 (26 Sept to 1 Oct 2010, Melbourne Convention Centre) that encompasses COMBIO2010, the 12th IUBMB and the 21st FAOBMB has commenced. This looks to be an exciting meeting and we are indebted to our members and colleagues who have invested significant time and effort organising the Cell Architecture & Trafficking and Developmental Biology Streams, Marie Bogoyevitch & David Jans and Helen Abud & Joy Rathjen, respectively.

An integral part of OZBIO2010 is the Young Scientist Forum (YSF) which is a conference of 50 international and 10 Australian PhD/early postdoctoral scientists that precedes OZBIO. ANZSCDB is sponsoring 2 fellowships reserved for PhD/early postdoc members to attend the YSF plus OZBIO2010. Further details of the YSF event can be found at the FELLOWSHIP tab of the OzBio2010 website http://www.asbmb.org.au/ozbio2010/ and applications close Feb 01, 2010.

I am pleased to announce that we will continue our commitment to the Hunter Cellular Biology Meeting (HCBM) to sponsor a HCBM International Speaker under the auspices of ANZSCDB's Distinguished Visiting Lectureship in Cell & Developmental Biology Program. Ed Munro from the University of Chicago, an expert in mathematical modelling of basic Cell & Developmental processes such as cell fate, morphogenesis, cell polarity and asymmetric cell division, will be the 2010 ANZSCDB HCBM International Speaker.

We are delighted that the Developmental Biology Workshop will be reinstated in 2010 in Melbourne by our eminent Developmental Biologists: Peter Currie, Peter Koopman, Richard Harvey, Rob Saint and Patrick Tam. ANZSCDB has promised funds in support of the invited international lecturers.

Corporate Sponsors.

Sigma-Aldrich has been the sole sponsor of the prestigious President's Medal and we are indebted to them. Carl Zeiss are generous sponsors of our Young Investigator Award, and we are grateful for their support in our recognition of Australasia's brightest, emerging Cell and Developmental scientists. Corporate support for our State/NZ-based meetings mentioned above included: Applied Biosystems, Geneworks, Invitrogen, Millipore and Roche. We thank all our sponsoring companies whose advertisements appear regularly in

EDITOR'S COLUMN

In the last issue of the ANZSCDB newsletter there are plenty of pics highlighting ComBio2009, in particular the prize winners - Confratulations to all! The Preident's Medalist, Richard Harvey, is profiled. And we hear from the state representatives to sum up the past year.

Please keep me updated with any comments, news and research advances that you would like to share with other ANZSCDB members.

Finally, I wish everyone a merry christmas and a happy new year. I am very much looking forward to hearing about the exiciting new science discoveries from everyone in 2010.

Megan Chircop
(nee Fabbro)
mchircop@cmri.org.au

our Newsletters.

Society Affiliations & Outreach.

Our affiliations with other societies broadens our scope and influence and allows us to provide more for our members. As an affiliate member of the Australian Society for Medical Research (ASMR) we contributed funds to the modelling on the HMRC workforce that the ASMR commissioned for a pre-2010/2011 Federal Budget submission. We decided to become a society/paying member of the International Society for Developmental Biology (ISDB) in recognition of the prominence of our society and our members in this discipline. As a corresponding society of the National Committee for Biomedical Sciences (NCBMS) of the Australian Academy of Science, we nominated student members to attend the 60th meeting of Nobel Laureates in Lindau, Germany in 2010 and offered travel expenses to the National Institutes of Health (USA) to facilitate collaborations. In recognition of our links with the major international Cell and Developmental Biology societies, we have recently been invited to become a member of the NCBMS commencing in 2010.

I want to take this opportunity on behalf of the Society to commend Ian McLennan (Otago) for taking the initiative to build a relationship with the New Zealand Government which now recognises ANZSCDB as a key body to advise on issues that impact on Cell and Developmental Biology research and teaching in NZ. Christine Jasoni (Otago) will collaborate with Ian in his advocacy. The relationship with government that Ian has established is one that a Society strives to achieve.

Finally, I want to acknowledge my colleagues on the ANZSCDB Executive, Geraldine O'Neill, Kat Gaus, Alpha Yap and Peter Currie, and ANZSCDB Secretariat, Ros Barrett-Lennard (MTCi) and Liz Orfanos (MTCi), and thank them for their dedication, support and advice.

A more detailed version of this report was delivered at the ANZSCDB Annual General Meeting at COMBIO2009 in Christchurch, NZ and will appear on the ANZSCDB website http://www.anzscdb.org/ANZSCDB-ConstitnNews.html

President
Australia and New Zealand Society for Cell and Developmental Biology
September 23th, 2008.

THANKS TO OUR SUSTAINED SPONSORS

SIGMA Aldrich PTY LTD
sponsors of the ANZSCDB President's Medal

Carl Zeiss
sponsors of the YIA

Animal Resources Centre

Australian Proteome Systems

Beckman Coulter Australia

BioScientific

Millipore Australia

Fronine Laboratory Supplies

Geneworks

Interpath Services

Merck Australia

Olympus Australia

Promega Corporation Australia

President's Medal

Prof. Richard Harvey

Victor Change Cardiac Research Institute
New South Wales

RICHARD HARVEY

2009 Medalist
It takes a lot of heart to follow the truth

Renowned developmental biologist, Australia Fellow and all-round nice guy Professor Richard Harvey is the 2009 winner of the ANZSCDB President's Medal. Amid the usually hectic end-of-year activities, Harvey took some time out recently to reflect on scientific societies, his passions for developmental biology, the nature of scientific truth…and the realities of growing up.

Harvey is currently Co-Deputy Director and Head of the Developmental Biology Division of the Victor Chang Cardiac Research Institute (VCCRI), where he has been based since 1998. The ANZSCDB Medal, awarded last week at the ComBio meeting in Christchurch, adds to an impressive career-long list of honours and awards for Harvey, including a prestigious Australia Fellowship earlier this year from the NHMRC. Harvey's achievements represent not only years of hard work and scientific success, but also the breadth of peer recognition bestowed on one of our pioneers of molecular and developmental cardiology.

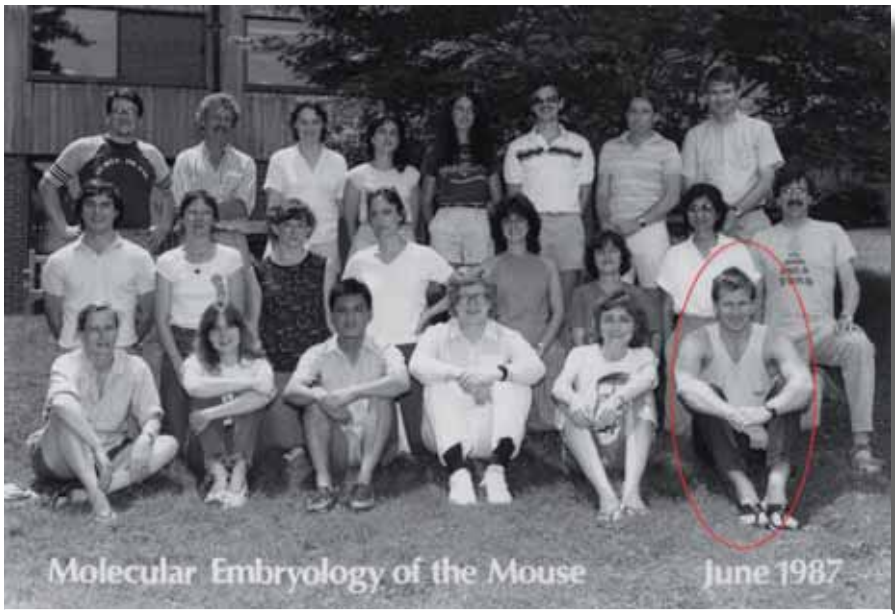
On scientific culture and being a Development Biologist

A recent and quite entertaining career review published by the NHMRC clarifies Harvey's passion for a challenge as an obvious and constant feature of his life in and out of the lab. I mean, when someone lists rock climbing as one of his favourite out-of-the-lab pursuits, you believe him when he also describes developmental biology as a challenging discipline to pursue, "and particularly so if working in Australia. I feel that developmental biology has not really flourished in Australia compared to other major scientific centres and we have always had to fight hard for recognition and priority. However, I think we have come a long way."

"A real dilemma for modern developmental biology is that on the one hand it is such an important element of the science continuum and absolutely fundamental to understanding basic biology and disease, while on the other hand, it is a constant struggle to get developmental biology research on the table in the face of more 'urgent' issues that are generally more at the biomedical end of the spectrum." Harvey strongly believes that a rich science culture has to support all of the elements from pure curiosity through to translational and applied research. "The fact is that curiosity is our greatest asset and the emphasis should be very heavily towards supporting the best and most committed people."

Finding a scientific 'home'

Harvey's passion for the discipline of developmental biology flourished in parallel with his scientific career.



Richard Harvey at the Cold Spring Harbor Mouse Meeting (1987) with the likes of Rosa Beddington, Liz Robertson, Rudolf Jaenisch, and Alan Bradley.

"As a PhD student in Adelaide, I trained in pure molecular biology at a time when that was the new field.

We were engaged in learning how to clone things – and the lab was all about histone genes, which of course are a hot topic again now. We were trying to define the vertebrate histone genes and in particular the special histones that were thought to regulate chromatin structure and gene expression."

As a new postdoc, Harvey then spent a fun, but professionally frustrating year in France at a biotech company. "This was a period of uncertainty for me, although I am sure I was quite typical of students who were still finding their confidence and direction. Harvey's research on the production of recombinant hirudin, an anti-coagulant from the leech, went well, but he did not warm to the commercial environment and was soon looking around for a more suitable scientific home. That old friend, serendipity, then took a hand when Harvey called a former colleague from Adelaide, Paul Krieg, who had gone to Harvard University to postdoc for Doug Melton. "To cut a long story short, we both ended up going to Harvard, mainly because Doug was so impressed with Paul that he thought all Australians must be like that, and so I got an invitation to work there as well." Harvey jumped at the chance and with it into his first taste of developmental biology – kind of literally, really, as the first model system he worked with was the frog.

"We were working on the biological issues that frogs are useful for," Harvey explained, "that is, the early stages of body patterning and axis formation. I started working on homeobox (Hox) genes and I guess that work pretty much determined that I should spend most of my subsequent career on the regulation of development by transcription factors of this sort. Doug Melton's influence was very important for me scientifically. He is such a creative and independent thinker, and an interesting intellect. We didn't always agree, but managed to resolve any differences for the positive. Basically, it was a fantastic time, and uncomplicated by any stresses or pressures associated with the relevance of one's research or translation to the clinic!"

Facing the reality back home…with significant success

By the middle of his three-year stint at Harvard, cutting up frogs and doing science for the pure discovery element, Harvey had already resolved to try and survive in science in Australia. So, after his postdoc, he headed back to Melbourne to set up his first independent research endeavour at WEHI, with the help of supportive mentors and an NIH grant and Fellowship. One of the earliest things Harvey was to realise back on antipodean shores was that the scientific environment for developmental biologists was quite different there than he was used to at Harvard. "Reality gradually sunk in that I was working within a medical biology funding framework and that my work really must have medical relevance, either by virtue of the question being addressed, or the system being worked on (eg. amphibian versus mammal). In fact, that is the reality of the funding environment in most places now in modern science."

Initially setting up the frog experimental system in his new lab, a 1988 paper by Nobel laureate Mario Capecchi on gene targeting in mice inspired Harvey to establish the knockout technology at WEHI. The appeal was the promise of using genetics to study development, but in a mammalian model. Soon after, his group discovered a cardiac gene called Nkx2-5, which turned out to encode a key transcriptional regulator of vertebrate heart development. In fact, this was one of the first genes he knocked out. According to Harvey, "it was a fairly banal and simple cloning experiment based on trying to find the homologue of a Drosophila gene in mammals. However, we were working against the dogma that the hearts of vertebrates and invertebrates were the products of convergent evolution, but we had a hunch that cardiogenic pathways might rather be conserved. We were right and the result has defined my work ever since. It was a very important discovery for cardiology and congenital heart disease biology and it was quickly clear that this gene would occupy a lot of our energies into the future, and of course we just went with it!"

"Basically, the President's job is about raising the awareness where possible so that the Society remains vibrant and continues to be relevant."

"My life since then has really been a juggling act between trying to contribute to the discipline of developmental biology at a very basic level and being relevant on a biomedical front." Harvey credits his move to the Victor Chang Institute around 11 years ago with positively changing the balance. "It gave me the opportunity to work with clinicians who were already embedded within the Institute. Some are exceptional scientists and genuinely interested in scientific problems of a basic nature – and catching their attention both facilitated my growth as a scientist and allowed me to tackle disease mechanisms in both mouse and humans, whilst still remaining strongly tied to basic questions in developmental biology. My current work on adult cardiac stem cells is an extension of these collaborations."

His own stint as the Pres

In 2004, Harvey took over the Presidency of the ANZSDB from the able hands of Tim Cox. "One does not become fully aware of the role of a society President until well into the term – at least that is how it was for me." With the key role of any scientific society being the organisation of regular scientific conferences, Harvey quickly learned how much time and energy this takes. For the ANZSCDB of course, this usually means taking a hand in running ComBio. However, one of Harvey's main missions as President was as

convenor of the International Society of Development Biologists' Congress held in Sydney in 2005.

With around 1000 attendees and no real financial umbrella, Harvey recalls it as an incredibly demanding time, but also very rewarding as the congress went down in history as one of the most successful and best meetings held for that Society. "We had an incredible international speaker list, a great social program and everyone seemed to really enjoy being in Australia." Harvey congratulated the current president Edna Hardeman for recently facilitating the ANZSCDB in becoming a paying member of the ISDB with full voting rights and privileges.

"It is good to have many influences in science to keep the mind open and thinking broadly – and then hope for those moments of clarity."

Connecting the masses

Another aim for Harvey during his presidency was to continue Tim Cox's good work in upgrading the newsletter, including going fully electronic for the first time. This allowed the newsletter to grow in size, with more scope in terms of gaining sponsorship – a vital component for societies like ANZSCDB that helps it support meetings and foster community activities including travel for students. Harvey was very keen that the newsletter should act as an easy information conduit for members about matters relevant to the fields of cell and developmental biology, whether it be around job placements, meetings, or science politics and administration at the national and state level. "Basically, the President's job is about raising awareness where possible so that the Society remains vibrant and continues to be relevant. As part of this, I tried to improve the level of our information network and foster a sense of scientific community…members need to feel some level of ownership of their society."

On the topic of recruiting younger scientists into the Society and into serving the profession of science, Harvey was philosophical, although acutely aware of this constant struggle. "I think it is all part of the continuum of growing up. When we are young there is definitely a resistance to becoming involved in the larger activities of science, especially when parting with money is involved, but I think as scientists' careers progress, those that are genuinely career-minded will know that it is important to contribute to and maintain the foundations of the larger scientific community. A society President needs to work hard on fostering this feeling of connectedness. ComBio is a very good meeting for doing just that and we are very lucky to have such a stable arrangement that works well for all concerned. It gives the student and younger scientist a good perspective on the topics and basic fields that are at both the core and periphery of what most of us do. Going to Combio is just a matter of sitting back and soaking it all up."

The nature of scientific truth

"I don't really have a scientific Holy Grail – I think for me it is about the freedom to work in an 'intellectual space', which alas we must protect in the face of attack from all directions…careers, money, expectations." Harvey defines this idea of intellectual space in terms of valuing both scientific philosophy in the culture in which we live and the way in which one establishes a fact in science or in any other aspect of life. "We need to teach our students to discriminate between what they want to happen and how they should view the data - the purity of the scientific process, and this is sometimes a battle."

"In an ideal world, this process of establishing truth and the value of science would be taught much earlier in our education system. As scientists, we constantly fight to show our value for the community and are under constantly pressure because we are competing for limited amounts of public money – too much pressure in fact and this comes through loud and clear to our younger scientists. Students are leaving science in droves and we need to address the environment within which we work as well as get into the schools to convince students of the value of doing science at a younger age."

On his own search for the truth

In terms of Harvey's own education and influences, he credits many people with helping to shape his career - from a very early age at home to a university mentor who took him aside and unwittingly ignited a passion for biology with his diagrammatic explanation of protein synthesis, to of course his academic and research supervisors and colleagues. "Going way back, my father was smart but intellectually passive, and my mother was a scholar, but directed that scholarship towards her Christianity in a fairly puritanical framework. You can imagine the contradictions that I faced as a curious young man, but I managed to absorb the gift of scholarship, and for this I am extremely grateful. Really though, at all stages of education, you meet people who clarify a small thing in your brain and it changes your life. It is good to have many influences in science to keep the mind open and thinking broadly – and then hope for those moments of clarity."

Based on these career experiences and a keen scientific insight, Harvey has learnt over the years that one certainly has to adapt one's career to the local framework, and he believes that this is a very important lesson for others. "Not that this is a bad thing, but it does require an awareness of the realities of the funding situation and of community expectations. The stem cell field provides a good lesson. People want to be informed and they expect the scientists to deliver on the hype. This could be tricky unless

the funding environment improves" Harvey remains concerned for the future of cell and developmental biology in Australia as a pure discipline and believes strongly that societies such as ANZSCDB have a role to play. "We need to support good young scientists in both disciplines where we can and teach them how to strike a creative and practical balance between the discipline, model system and biological question they pursue relative to community expectations and funding realities…it is a fine line."

Asked what he would have pursued if such constraints did not exist, Harvey admits that things probably would have been very different just because of his more basic-science training and history…"Don't get me wrong I am very happy with my life and how it has turned out scientifically, and my journey has been enriched by proximity to the clinical issues. In any case, maybe it is really just a matter of growing up?"

Fiona Wylie

MEMBERS IN THE NEWS

Edna Hardeman was one of two recipients of 2010 NHMRC Project grants invited to give a speech at the ceremony at Parliament House announcing the funding of the 2010 National Health and Medical Research Council Project Grants. The ceremony was attended by Nicola Roxon, MP, Federal Minister for Health (opened the ceremony), Mark Butler, MP, Parliamentary Secretary for Health, Warwick Anderson, CEO of the NHMRC Members of parliament, Members of the NHMRC Council

*

Edna Hardeman attended the 2009 Prime Minister's Prizes for Science, she was invited since she is Pres of the ANZSCDB - Last Wednesday on 28 October evening, the Prime Minister of Australia, The Hon Kevin Rudd and Senator Kim Carr, the Minister for Innovation, Industry, Science and Research, presented the 2009 Prime Minister's Prizes for Science. Full information about the night is now available on the Prizes website. http://www.innovation.gov.au/scienceprizes.

*

Professor **Paul Fisher f**rom the Microbiology Department at La Trobe University delivered a lecture on the 8th October to the Royal Society of Victoria. The lecture was entitled "Animal, Vegetable or Miracle: What a Slime Mould Can Tell Us about Mitochondrial and Neurodegenerative Disorders". Professor Fisher presented work on the role of AMPK signalling in mitochondrial disease cytopathology, a discovery for which Professor Fisher was awarded the Australasian Science Prize for 2007. He also described recently published work by Dr. Lisa Francione and others in his group showing that chronic AMPK signalling in mitochondrially diseased cells makes them more permissive of intracellular Legionella proliferation than are healthy cells. This discovery was featured in the September issue of Australasian Science, in a press release by the journal Disease Models and Mechanisms and on the front cover of the journal's September issue.

10th Anniversary Meeting

The 10th Hunter Cellular Biology Meeting

The Sebel Kirkton Park, Pokolbin, NSW, Australia

Australia's Premier Cellular Biology Meeting ~ in NSW's Premium Wine-growing district

March 16-19, 2010

on-Line Abstract submission until November 20, 2009

Sandy Schmid
The Scripps Research Institute

Michael Way
Cancer Research UK

Martin Schwartz
The University of Virginia

Frances Brodsky
UCSF Comprehensive Cancer Center

Margaret Frame,
The University of Edinburgh

Cayetano Gonzalez
IRB-Barcelona, Spain

Anna-Katerina Hadjantonakis
Memorial Sloan-Kettering Cancer Center

Carl-Phillip Heisenberg
Max-Planck-Institute of Molecular Cell Biology and Genetics/ Dresden

William E. Balch
The Scripps Research Institute

Ed Munro
Friday Harbor Labs, University of Washington

Mark Peifer
The University of North Carolina at Chapel Hill

Convenors:
Alpha Yap, Phil Robinson

Registration http://hcbm.mtci.com.au

The 10th Hunter Cellular Biology Meeting

The Hunter Cellular Biology Meeting is one of the year's regular opportunities for Cell and Developmental Biologists to get together and exchange ideas, all in the bucolic surrounds of the Hunter Valley. The forthcoming 2010 meeting will be held from March 16th to March 19th, 2010. The meeting proper will begin on the evening of March 16th, with the Keith Stanley Lecture. It will also be preceded by an Imaging Workshop being organized by Will Hughes and Sally Dunwoodie, the third of a series that have proven consistently stimulating and popular.

The 2010 Hunter Meeting celebrates the 10th anniversary of the conference. We have assembled an exciting roster of international speakers. They include Sandra Schmid (Scripps), Martin Schwartz (University of Virginia), Caeytano Gonzalez (IRB-Barcelona), Mark Peifer (University of North Carolina), Michael Way (CR-UK), Margaret Frame (University of Edinburgh), Ed Munro (University of Chicago), Frances Brodsky (UCSF), Carl-Phillipe Heisenberg (Max-Planck Institute, Dresden) and Anna-Katerina Hadjantonakis (Sloan-Kettering). Themes introduced by international guests will be complemented by a range of established and up-and-coming national speakers.

Some of the themes that the meeting will develop include membrane trafficking in metabolism and disease, cell signaling and cancer, the cytoskeleton in host-pathogen interactions, regulation of cell migration, cell and developmental biology of the vascular system, asymmetric cell division, modelling in experimental systems biology, and morphogenesis. Our aim is to explore the interconnections between cell and developmental biology, and also to examine how understanding basic mechanisms forms the foundation for analysing disease and pathology.

We encourage you to register and submit abstracts on line at: http://hcbm.mtci.com.au/HM10-Abstracts.htm. The deadline for abstracts is November 20th, 2009. There will be ample time for poster presentations and a number of talks will be selected from the submitted abstracts.

We look forward to seeing you in 2010.

Alpha Yap and Phil Robinson (Convenors)

ANZSCDB Sponsored Speaker

Ed Munro

University of Chicago

Ed Munro's work attempts: a) to turn empirical descriptions of how things might work into mathematical ones and thence into detailed computer models, and b) to pursue descriptive and experimental studies that inform or test these models in the context of specific case studies of developmental processes. Modern microscopy is applied to living and fixed embryos with micromanipulation, molecular and genetic perturbations and computational modeling. Some specific current interests include:

Mechanochemical networks underlying cell polarization and asymmetric cell divisions in early C. elegans embryos: How mixed networks of regulatory and cytoskeletal proteins interact biochemically and mechanically to bring about the cortical and cytoplasmic reorganizations that establish and maintain cellular polarities, position spindles, and set up asymmetric cell divisions.

Cytomechanics and morphogenesis: How the same conserved cytomechanical modules that endow individual cells with the abilities to adhere and crawl and change shape also endow embryonic tissues with their abilities to rearrange or deform themselves in characteristic ways.

Gene networks and patterned cell fate specification: How networks of interacting gene products operating within each of many embryonic cells adopt the specific spatially patterned states that underlie regional cell fate specification in developing embryos.

The 2nd Australasian Wound and Tissue Repair Society Meeting

AWTRS 2010 ~ *Crossing the Boundaries*

22-24 March, 2010 ~ Perth Convention and Exhibition Centre Western Australia

We invite you to Register on-Line for the exciting AWTRS 2010 meeting and pre-conference Workshop/Master Class, March 22-24, 2010.

Important dates:

- **November 27, 2009: Registration and submission of abstracts** to be considered for Oral/Poster presentation selection
- **January 8, 2010: Close of Early Bird registration**

Proceedings published in *Wound Repair and Regeneration*

AWTRS 2010 *is followed by the Australian Wound Management Association (AWMA) 2010 Conference with attractive reciprocal membership discounts.*

Professor Jeffrey Hubbell (Switzerland) *Tissue engineering*

Professor Paul Martin (UK) *Wound healing and inflammation*

Professor Fiona Wood (Aus) *Systemic responses to burn injury*

Professor Prue Hart (Aus) *The skin immune system*

Professor Rob Short *(Aus) Surface engineering technologies - for cell therapy, tissue engineering and life science research tools*

PRESENTERS include

A/Professor Allison Cowin *(Aus)*

A/Professor Ian Darby *(Aus)*

Professor Sarah Dunlop *(Aus)*

Dr Laura Edsberg *(USA)*

Dr Mark Fear *(Aus)*

Professor Hans Griesser *(Aus)*

A/Professor Chris Jackson *(Aus)*

Dr Pritinder Kaur *(Aus)*

Dr Susan McLennan *(Aus)*

Dr James McMillan *(Aus)*

Dr Rachael Murray *(Aus)*

A/Professor Steve Mutsaers *(Aus)*

Professor Cees Oomens *(The Netherlands)*

Professor Laura Poole-Warren *(Aus)*

Professor Zee Upton *(Aus)*

Dr Hilary Wallace *(Aus)*

Dr Jerome Werkmeister *(Aus)*

Convenors: Dr Hilary Wallace, *University of Western Australia* **Dr Mark Fear,** *McComb Foundation*
Secretariat: awtrs2010@mtci.com.au

smith&nephew PHOENIX EAGLE THE COMPANY OF Biologists www.biologists.com

http://awtrs2010.mtci.com.au

FASTS Federation of Australian Scientific and Technological Societies

FASTS is Australia's peak science body, representing over 60 professional societies and 60,000 scientists. You are a member of FASTS through membership of your society. Our professional staff supports you, your society and the Australian scientific community in a range of ways. FASTS seeks the ongoing contribution of your Society to keep science at the forefront of the national agenda.

FASTS ongoing contribution to Australian science includes:

- *Science meets Parliament* – FASTS' annual flagship event, where more than 200 scientists have face-to-face meetings with Federal Parliamentarians on science issues
- Highlighting science with the Prime Minister and the Cabinet through FASTS' *ex-officio* membership of PMSEIC
- Organising forums and workshops on significant science issues
- Developing science policy at a high level and providing input to Parliamentary Committees, Government Departments and Government reviews and inquiries
- Assisting Member Societies to raise and develop issues
- Distributing information to Member Societies regularly and responding to feedback

2009 highlights include:

- Roll out of FASTS *Heads Up* Program including presentations on *Quantum Cryptography,* and *Emissions Reduction Targets and the Great Barrier Reef*
- National roadshow to gather responses to the Government's: *Powering Ideas: An Innovation Agenda for the 21st Century*
- Presentation to the PMSEIC on *Epidemics in a Changing World* and contribution to the PMSEIC foresighting committees
- Provision of examples of science success stories *from FASTS' members* to the Prime Minister
- Launch of major document in Parliament on *Women in Science in Australia: Maximising Productivity, Diversity and Innovation*
- Release of major reference document *When is Science Valid? – a Short Guide on How Science Works and When to believe it*
- Formation of the *Great Barrier Reef Climate Change Alliance* and briefing to politicians, the media and the bureaucracy on the impact of climate change on the GBR
- Release of Policy Discussion Paper: *Giving Preparedness a Central Role in Science and Innovation Policy*
- Commissioned a study to investigate the changing nature of scientific and technological work
- Submissions to reviews including ARC Centres of Excellence and NHMRC Fellowship Consultation Paper

Value to FASTS' Members – Projects for 2010

- Support FASTS' Members in building sustainable societies
- Ongoing action to implement the *Women in Science* Report
- Contribute to the development of the Federal Government's Research Workforce Strategy
- Ongoing work on the changing nature of scientific and technological work
- Provide FASTS' Members with practical resources such as *Guidelines to Running Conferences*
- Publish a policy document addressing *Impediments to Collaboration*
- Publish a paper on the *Governance of Science*
- Investigate links between science education and industry-readiness
- Present further briefings under the *FASTS Heads Up Program*– ***contact FASTS with your ideas***
- Hold *Science meets Parliament*: 9 & 10 March 2010– ***contact FASTS to attend***

For more information and to access the documents above please visit the FASTS' website: www.fasts.org

Dr Cathy Foley, President: *Cathy.foley@csiro.au*
Anna-Maria Arabia, Executive Director: *annamaria.arabia@fasts.org* Tel: 02 6257 2891 / 0412 940 921

ComBio2009 Prize Awardees

Ira Mautner from Sigma-Aldrich & Edna Hardeman President & Richard Harvey President's Medalist

Richard Harvey delivers the 2009 President's Medal plenary

Young Investigator Award winner Kieran Harvey & David Flood from Zeiss

CONGRATULATIONS!

President's Medalist Winner - Prof. Richard Harvey

Young Investigator Award Winner - Kieran Harvey

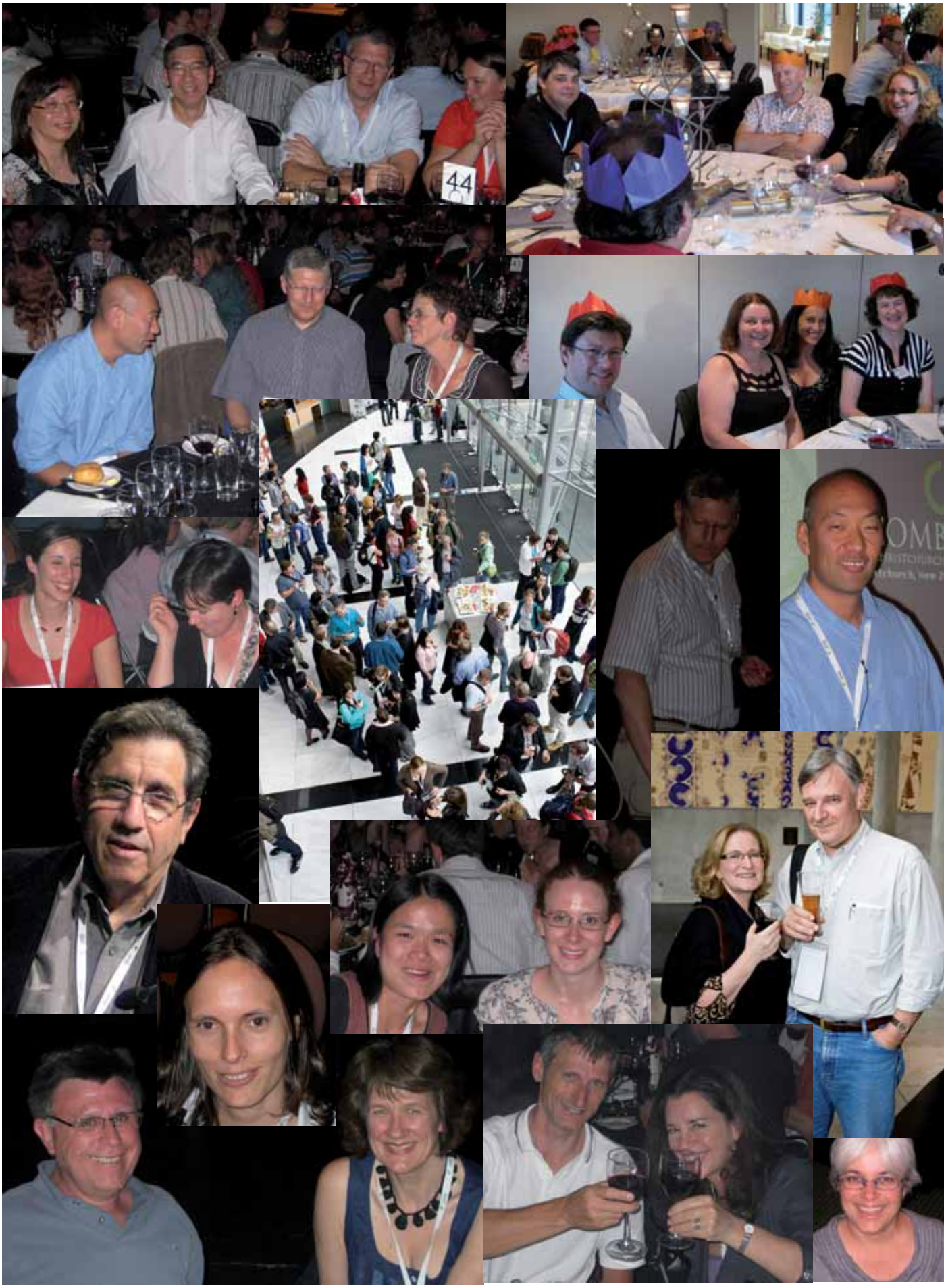
COMBIO2009 Awards for best Poster and Oral Presentations:

ANZSCDB Cell Biology Student Poster Prize – Claire Martin (University of New South Wales)
The Keith Dixon Prize in Developmental Biology – Jad El-Hoss (The Kids Research Institute, CHW) & Vicki Metzis (Institute of Molecular Biosciences, UQ)
The David Walsh Student Prize – Ursula Jewell (University of Otago)
The Toshiya Yamada Early Career Award – Elizabeth Duncan (University of Otago)

ANZSCDB Cell Biology Student Poster Prize - Claire Martin (UNSW)

The David Walsh Student Prize - Ursula Jewell (University of Otago)

A ‘snapshot’ of ComBio2009



ANZSCDB Student Travel Awardees to attend ComBio2009

NADIA SADLI

It was a pleasure to be able to travel to Christchurch, New Zealand to participate in the ComBio Conference (one of the Australia's most broadly-based biosciences meetings) and to present some of my PhD work as a poster.
ComBio conference was informative and fun, and it also gave me, as a student an opportunity to explore the evolving world of research and learn from the professionals. The conference covered a big range of topics, such as proteins function, plant biology, Medical Science, crop production and climate change impact, but small enough that I was able to make some personal connections that was somehow benefit my research career.
On the first day of conference, we had a career development forum which opened up my mind to the diversity of career paths available for PhD graduates. This informal session has also allowed us to meet with people who were already working in the field and who therefore have a lot of practical knowledge and advice to share.
The seminar sessions were very inspiring, and I especially enjoyed the neuroscience aspects of Medical Science stream and also food technology sessions which somehow relevant to my PhD project. The sessions sometimes felt overwhelming, but I came away from the ComBio conference with a desire to incorporate some of the topics into future research papers.
I approached the conference with some anxiety as a first time professional conference attendee. But the conference atmosphere was very friendly and welcoming, it left no room for further nervousness. The opportunities for exploring the city and to interact with new people were also plenty; I had my second evening with a group of people from MedScience stream for dinner function where I had an opportunity to meet new people in the same line and therefore had the same interest. The foods were superb and the night was a huge success!
Overall, ComBio conference was a truly rewarding experience personally and professionally. I had not only gain new knowledge but also memories and new friends. I came back to my lab in Melbourne, Australia felt energized, and filled with new ideas. I would like to thank ANZSCDB for the travel award in order to attend Combio conference this year and I am looking forward to the OzBio in 2010.

Nadia Sadli
PhD student, Life and Environmental Science, Deakin University,Melbourne Australia.

CLAIRE MARTIN

Many thanks to the ANZSCDB for awarding me a Student Travel Award and supporting my attendance at Combio 2009 in Christchurch, New Zealand. I found it a very rewarding conference, with excellent talks stretching from the first morning to the final afternoon. I especially enjoyed the Cell and Developmental Biology stream, which featured many fascinating talks on cellular migration and architecture, topics that I am very intersted in. Highlights for me included Benjamin Geiger (Weizmann Institute of Science, Israel) talking about the structure and dynamics of integrin adhesions, and Kat Gaus (UNSW) showing examples of super-resolution microscopy used to investigate T-cell function. On the second day of the conference I had the opportunity to present some of my PhD work as a poster, and was honoured to win the ANZSCDB student poster prize.

This conference was also an excellent opportunity to reflect on my past, present and future as a scientist. I got the chance to catch up with friends and colleagues from my honours studies at the University of Otago, got to meet some new people and get to know some of my current colleagues better, and also had some productive discussions with potential post-doctoral mentors. I'm looking forwards to seeing everyone again next year in Melbourne, for OzBio 2010!

Claire Martin
PhD student, University of New South Wales

ANZSCDB Student Exchange Scheme Awardee

JESSIE ZHONG

I was granted an ANZSCDB Student Exchange Scheme award which enabled me to travel to Professor Pankaj Sah's lab at the Queensland Brain Institute to learn organotypic brain slice culture.

My PhD project investigates glioblastoma, an aggressive brain cancer with average patient survival of 12-15 months. The difficulty in treating glioblastoma lies in the ability of individual tumour cells to invade into the healthy surrounding brain tissue which inevitably leads to recurrence. Therefore, the aim of my project is to investigate the invasion and infiltration of glioblastoma cells.

One of the major goals of my project is to develop physiologically-relevant models for analysing the migration of glioblastoma cells. Studies comparing cells in three-dimensional models and two-dimensional models have highlighted the differences in cell morphology, behaviour and response to drug treatment, and found that 3D environments better resemble the in vivo environment. Organotypic brain slice culture

is a technique that allows close representation of the in vivo microenvironment as the natural 3D structure of the brain tissue is retained. It involves dissection of a mouse brain which is then cut into 300-400 µm-thin slices and maintained in special culture media. I discovered that this was not as easy as it sounds because neonatal mouse brains are quite soft and fragile! In our experiments, we will aim to culture fluorescently-labelled glioblastoma cells on brain slices and then track and analyse their migration using fluorescent time-lapse microscopy.

Thank you to the ANZSCDB and Prof. Sah and all the members of his lab for making this invaluable learning experience possible!

2009 Prime Minister's Prizes for Science

Report by EDNA HARDEMAN

I was privileged to represent ANZSCDB at the 2009 Prime Minister's Prizes for Science that took place at Parliament House on October 28. The evening was truly inspirational. The Prime Minister Kevin Rudd and Senator Kim Carr, the Minister for Innovation, Industry, Science and Research, presided and presented the awards. A brief description of the five recipients and their remarkable achievements are described below. Full information about the night is available on the Prizes website http://www.innovation.gov.au/scienceprizes.

The 2009 recipients are:

·John O'Sullivan: 2009 Prime Minister's Prize for Science

·Michael Cowley: 2009 Science Minister's Prize for Life Scientist of the Year

·Amanda Barnard: 2009 Malcolm McIntosh Prize for Physical Scientist of the Year

· Len Altman: 2009 Prime Minister's Prize for Excellence in Teaching in Secondary Schools

· Alan Whittome: 2009 Prime Minister's Prize for Excellence in Teaching in Primary Schools

John O'Sullivan: How astronomy freed the computer from its chains

Nearly a billion people use John O'Sullivan's invention every day. When you use a WiFi network—at home, in the office or at the airport—you are using patented technology born of the work of John and his CSIRO colleagues.

They created a technology that made the wireless LAN fast and robust. And their solution came from John's efforts to hear the faint radio whispers of exploding black holes.

Today John is working on technology that will allow us to look back almost to the beginning of time itself.

For his achievements in astronomy and wireless technologies John O'Sullivan receives the 2009 Prime Minister's Prize for Science.

Amanda Barnard: Testing new technologies in the computer not the real world

Every new technology brings opportunities and threats. Nanotechnology is no exception. It has the potential to create new materials that will dramatically improve drug delivery, medical diagnostics, clean and efficient energy, computing and more. But nanoparticles—materials made small, just a few millionths of a millimetre in size—could also have significant health and environmental impacts.

Amanda Barnard hopes to predict which nanoparticles will work most efficiently and which could be dangerous. Using supercomputers, she's making the particles in the virtual world and testing how they interact in various environments before they get made in the real world. Her peers told her it couldn't be done. But this young scientist proved them wrong and now leads the world in her field of nanomorphology—predicting the shape, structure and stability of nanoparticles.

For her early career achievements in modelling nanoparticles CSIRO's Amanda Barnard receives the 2009 Malcolm McIntosh Prize for Physical Scientist of the Year.

Michael Cowley: Breaking the link between fat and diabetes

Why do we get fat? What's the link between obesity, diabetes and hypertension? Can we break the link? These are critical questions for Australia's long-term health, and Michael Cowley may have the answers.

He's shown how our brains manage our consumption and storage of fat and sugar and how that can go wrong. He's created a biotech company that's trialling four obesity treatments.

Michael has shown unequivocally that losing weight isn't just a matter of will power.

Now with his colleagues at Monash University he is discovering why obesity increases risks of heart disease and diabetes. And he's developing therapies to break the connection between these conditions.

For his contribution to our understanding of metabolism and obesity, Michael Cowley receives the

2009 Science Minister's Prize for Life Scientist of the Year.

Len Altman: Creating new careers in the rocks

Geoscience is at the heart of some of humanity's biggest challenges in the 21st Century: access to water; alternative energy sources like geothermal and hydro; and adapting to climate change. "So why," asks Len Altman, "Are students in our schools more likely to learn about the moons of Jupiter or the rings of Saturn than about the planet Earth and its history?"

Len is changing that at Marden Senior School and at the schools in his region and state. Along the way he is helping more young people discover science, and helping mature students discover new careers in the minerals industries.

For his achievements in teaching geoscience Len Altman receives the 2009 Prime Minister's Prize for Excellence in Teaching in Secondary Schools.

Allan Whittome: Living science

Badgingarra Primary School is perched on a hill three hours north of Perth, looking out across fields of canola and wheat. The approach to the school is lined with sculptures of native animals and a model of the Solar System made in limestone, set amongst native plants. In the classroom the students are fine- tuning model racing cars they've designed and manufactured online. All this is due to the work of Allan Whittome.

In Allan's classes the students live with the science—experiencing it and playing with it every day.

The school has embraced science and the investigative process. Students engage in science by choice—designing their own investigations, questioning 'why?' and formulating new or reaffirming answers to those questions.

Students participate in competitions, awards programs and community projects including the NATA Young Scientist of the Year awards, the Earthwatch Teachlive Whale Sharks of Ningaloo project, Community Hydrogen Fuel Vehicle Challenge and the F1in Schools program.

For his achievements in engaging young students in science Allan Whittome receives the 2009 Prime Minister's Prize for Excellence in Teaching in Primary Schools.

State Representative Reports

ACT

2009 has been relatively quiet for ACT members of the ANZSCDB after last year's excitement of Canberra being host to the ANZSCDB general meeting and (first ever) society dinner during the COMBIO conference.

Nevertheless, this year, we welcome the exciting news that Dr Eldon Ball (a Senior Fellow in the Research School of Biology at the Australian National University (ANU)) will be co-heading efforts to sequence the coral, Acropora millepore, with Professor David Miller (James Cook University). Sequencing of this Australian coral is a first for Australia as it will be the first animal genome to be fully sequenced and assembled in this country. This milestone project has implications for our understanding of genome evolution and will help in understanding how to preserve our coral reefs for future generations. Congratulations to Eldon and his colleagues at the ARC Centre of Excellence for Coral Reef Studies (CoECRs) and the Australian Genome Research Facility (AGRF).

We also congratulate Dr Ruth Arkell, a Senior Fellow in the Research School of Biology at the ANU, on being chosen for the ANZSCDB 2009 Young Investigator Award. Dr Arkell's research focuses on the determining function and mechanism of regulation of the Zic family of genes during early embryonic development using a combination of mouse genetics, embryology and cell biology.

Finally, this year we farewell Professor Rob Saint, the 2008 recipient of the ANZSCDB President's Medal, and his lab to the University of Melbourne (and the Victorian chapter of the ANZSCDB). Professor Saint's laboratory has been an integral part of the cell and developmental biology research at the Australian National University. Consequently, Rob and his lab's departure is indeed a loss for our small ACT ANZSCDB community; nevertheless we sincerely applaud Rob on his appointment as Dean of the Faculty of Science at the University of Melbourne and wish him all the best in this endeavour.

Radiya G Ali

NSW

In 2009 NSW once again hosted the Hunter Cell Biology Meeting (convener: Paul Gleeson), a truly inspiring international meeting of Cell and Developmental Biologists now in its 9th year of growth and development. A new feature in recent years has been the pre-meeting Imaging Workshop. This year the imaging workshop showcased some quite remarkable approaches, taking microscopy to the subcellular and

molecular levels, often in living cells. The upcoming 2010 Hunter meeting will be the 10th anniversary of it's founding. With a wealth of impressive speakers, members are encouraged to attend.

In October 2009, the Victor Chang Institute hosted a Cardiac Developmental Biology Workshop with talks by a number of overseas and local speakers. This was associated with the Victor Chang/St Vincent's Hospital international symposium on "Cardiology at the frontier: development, stems cells and heart failure".

The NSW Cell and Developmental Biology Meeting was held in November at the Garvan, ably organized by Jacqueline Stoeckli (Garvan) and Thomas Fath (UNSW) for the state chapter of ANZSCDB. We thank ANZSCDB, Invitrogen and Applied Biosystems for their generous support and the rich chocolate cake. Also rich and diverse was the splendid science presented. Talks included James Burchfield (Garvan; GLUT4 trafficking), Megan Chircop (CMRI; mitotic division) and Justin Lees (Kids Res. Inst; mesenchyme motility). These were followed by Traude Beilharz (Victor Chang; the poly-A tail and regulation of translation), Cathy Leamey (Uni. Sydney; Ten-m proteins and wiring of the brain) and Thomas Fath (UNSW; tropomyosins in neuron development). Our keynote speaker this year was Vishva Dixit (Genetech) who gave an inspiring talk on the intricacies of the ubiquitin system and its involvement in regulating the inflammasome.

Finally I think many members would be interested to hear news of researchers establishing their own labs and groups at Universities and Institutes around the state. In 2009, for instance, Nicholas Cole established a zebrafish research lab in Anatomy at University of Sydney. Nick's lab focuses on limb and muscle development and Thomas Fath started his group in the School of Medical Sciences at the University of New South Wales focusing on the regulation of the neuronal cytoskeleton in development and disease. If NSW members could please pass on word of new appointments at their own institutions to Thomas Fath or myself we would be happy list them in future NSW state reports.

Bill Phillips and Thomas Fath

VIC

The highly successful 2008 Inaugural Victorian ANZSCDB Cell and Developmental Biology Meeting was surpassed by this years event, which attracted more than 90 registrants from within Victoria and interstate. The Meeting was again an opportunity for up and coming PhD students and postdoctoral researchers to present their work and to raise the profile of these important disciplines in Victoria. This years meeting was a full day affair supported by the ANZSCDB, Geneworks, Millipore, The Peter MacCallum Cancer Centre, Monash University and the European Molecular Biology Organisation attracting plenary speakers from both overseas and interstate whilst keeping registration free. Students and postdocs from more than 10 different Universities or Research Institutes presented their work on a broad range of different topics and covering an array of experimental systems. Dr Nicolas Tapon (CRUK, London) and A/Prof Carol Wicking (IMB Brisbane) presented plenary lectures. The PhD student and postdoctoral research fellow presentations were of a very high standard with Dr Kieran Short (Monash University), and Cheryl Chia (Melbourne University) being awarded prizes for the best presentations.

In other Victorian news, the fields of Developmental and Cell Biology have been strengthened by several significant local developments. The Victorian and Federal governments announced the development of the Parkville Comprehensive Cancer Centre (PCCC) which will house clinical and research staff from the Peter MacCallum Cancer Centre, the Royal Melbourne Hospital, the University of Melbourne, the Melbourne branch of the Ludwig Institute for Cancer Research, the Royal Women's Hospital and the Walter and Eliza Hall Institute of Medical Research. May also saw the official opening of the Australian Regenerative Medicine Institute (ARMI) at Monash, established through a joint venture between the University and the Victorian Government. The Institute will build on the University's existing strengths in biomedical research, and will support the critical infrastructure required to deliver the next generation of discoveries in regenerative medicine. Recruits to the facility include Director Prof Nadia Rosenthal, Deputy Director Prof Peter Currie and groups leaders Dr Christophe Marcelle, A/Prof Tiziano Barberi and Dr James Bourne. ARMI resides in the newly developed STRIP complex which now houses research Departments of the School of Biomedical Sciences.

Ian Smyth and Kieran Harvey

SA

2009 has been another busy year for Cell and Developmental Biology in South Australia with many exciting events throughout the year.

Major conferences held in South Australia in 2009 included Science amongst the Vines; the Fourth Barossa Meeting on Cell Signalling in Cancer and Development. This meeting was held in November in the beautiful setting of the Barossa Valley and is rapidly gaining a reputation for the excellence of its science, as well as the quality of its food and wine. Professor John Dick (University of Toronto) was awarded the 2009 Clifford Prize for Cancer Research and its associated magnum of Penfolds Grange. International speakers included Christer Betsholtz (Karolinska Institute), Blanche Capel (Duke University), Vishva Dixit (Genentech) and John D. Scott (University of Wash-

ington), who were treated to this fantastic meeting and also a local bushfire leaving them with a unique Australian experience. Full credit must go to Angel Lopez and his colleagues for the organization of this fine meeting, and to the local CFS.

South Australia also hosted the Society for Reproductive Biology conference at the Adelaide Convention Centre in August. The 2009 Founders Lecture was presented by Professor Lois Salamonsen (Prince Henry's Institute of Medical Research) and the 2009 RFD Award Lecture by Professor Fulvio Gandolfi (University of Milan). In February, the Whalers Inn in Victor Harbour hosted the 10th Australia and New Zealand Zebrafish Workshop. International speakers Brant Weinstein (NICHD) and Carl-Philipp Heisenberg (Max Planck Institute) presented their work with the program being followed by a 1-day zebrafish husbandry workshop held at the University of Adelaide.

Adelaide also played host to an array of high profile national and international speakers during 2009. International scientists who shared their latest research with the South Australian scientific community included Andy McMahan (Harvard University), Peter Rigby (The Institute of Cancer Research), Jose Maria Polo (Harvard University) and Jan Karlseder (Salk Institute).

2009 also saw the strengthening of the RNA Interest Group (RIG) initiated in late 2008. This group brings together South Australian scientists with a common interest in miRNAs and RNA biology from the Uni of Adelaide, Uni SA, IMVS, CSIRO and Flinders Uni. This year invited guest speakers included Cameron Johnston (Peter MacCallum Cancer Centre) and Thomas Preiss (Victor Chang Cardiac Research Institute). Thanks to Greg Goodall from the IMVS for initiating and co-ordinating the meetings and Applied Biosystems for their continued support.

A further highlight for several South Australian members of the ANZSCDB was a trip to the International Society for Developmental Biology Congress in Edinburgh, UK. As usual, the ISDB congress was an epic meeting highlighting the wonderful research of some of the world's premier developmental biologists. It also provided a valuable opportunity to strengthen local collaborations with other ANZSCDB members from South Australia and Australia. There's nothing like being on the other side of the world to stimulate local interaction in such an inspiring scientific environment.

Thus, 2009 has been an exciting year for Cell and Developmental Biology in South Australia and with the arrival of Funi and Wang Wang we look forward to 2010 with much anticipation.

Bryan Haines and Kate Dredge

NZ

In 2009 we were fortunate to have ANZSCDB sponsorship for a Developmental Biology Satellite meeting as part of the annual Queenstown Molecular Biology meetings in New Zealand. As a co-organiser of that satellite, it is my pleasure to say that we had a fantastic turnout and, from my perspective, the meeting went splendidly. ANZSCDB sponsorship made our post-meeting social a huge success as well. The meeting had an enormous positive impact on students as well, with several being encouraged to pursue further studies in developmental biology. I can't give enough thanks to the Society, out superb line-up of overseas and domestic speakers, and my co-organisers, Julia Horsfield and Peter Dearden.

More recently ANZSCDB past NZ rep A/P Ian McLennan and myself (minor role) have been endeavouring to clarify the regulations laid out in the recently amended NZ Human Tissue Act (2008) as pertains to access of embryonic, fetal, neonatal tissue for the purposes of Developmental Biology research and teaching. It is our wish to ensure that policy does not overlook, and thereby inadvertently make criminal, the needs or practices of Developmental Biology researchers and teachers. I am pleased to report that communication with government lawyers has proved most fruitful.

Finally, I would like to thank those individuals who are responsible for running ANZSCDB – their efforts and activities are highly valued.

QLD

No report.

WA

No report.

Many thanks to our out-going state reps for their efforts on behalf of the society:
Kate Dredge (SA)
Asanka Karunaratne (QLD)
Steve Palmer (NSW)
Kieran Harvey (VIC)

A big welcome and congratulations to the new state reps. It was fantastic to receive a number of nominations (and sorry to those who missed out this year but we encourage you to continue to be active in the society).

INTRODUCING THE NEW STATE REPS:

NSW: Thomas Fath, University of New South Wales
The focus of my research is to study how the cytoskeleton is driving dynamic processes in motile compartments of neuronal cells such as the growth cones of developing neurons and at synapses in the central nervous system. The proper function and regulation of the cytoskeleton is crucial in order to establish and maintain the complexity of neuronal connectivity in the brain and the dysfunction of the cytoskeleton has been associated with a range of neurological diseases. Our aim is to understand how regulators of the cytoskeleton are involved in the pathology of neurodegenerative diseases using a range of transgenic and knockout mouse models.

QLD: Eva Kovacs, University of Queensland
Examining cytoskeletal regulators and their impact upon cadherin biogenesis and morphogenetic processes.

VIC: Peter Farlie, Murdoch Childrens Research Institute
My main research interest is patterning and morphogenesis of the craniofacial complex. This has led to a substantial interest in the genetics of human dysmorphology and syndromes involving craniofacial anomalies. Since many dysmorphologies involve abnormalities of the skeleton I have also developed a specific interest in the mechanisms regulating morphogenesis of the skeleton.

SA: Yeesim Khew-Goodall, Hanson Institute
The main focus of my laboratory is to elucidate the signalling pathways that transform a non-migratory, non-invasive epithelial cell into a migratory invasive mesenchymal cell. The need for cells to move away from their tissue of derivation and take up residence in a new environment where they can proliferate and undergo further differentiation underpins the development of new tissues and organs during embryonal development. In the adult, it also underlies the process of wound healing and is a prerequisite for pathologies such as cancer progression and fibrotic kidney disease.

WA: Aleksandra Filipovska
Mitochondria are essential for the normal function and survival of eukaryotic cells. Given their central role in providing energy for cells it is not surprising that mitochondrial dysfunction is involved and contributes to the pathology of many diseases and in ageing. Despite their importance the regulation of gene expression in mammalian mitochondria remains poorly understood. My research interests involve identification and characterization of RNA-binding proteins that regulate the stability, expression and translation of mitochondrial genes. In addition, I am interested in the development of gene therapy approaches and chemotherapeutics to target mitochondrial dysfunction in cells.

The new reps join the following current reps:
Bryan Haines (SA)
Radiya Ali (ACT)
Dagmar Wilhelm (QLD)
Bill Phillips (NSW)
Ian Smyth (VIC)
Christine Jasoni (NZ)
Maria Flores (NZ).

Publications from our Members

Ahmed AU, Fisher PR. (2009). Import of nuclear-encoded mitochondrial proteins: a cotranslational perspective. Int. Rev. Cell Mol. Biol. 273: 49-68.

Allan C, Fisher PR. (2009). In Vivo Measurements of Cytosolic Calcium in Dictyostelium discoideum. In "Chemotaxis". Methods Mol. Biol. Ed. T. Jin and D. Hereld. 571: 291-308.

Annesley SJ, Fisher PR. (2009). Dictyostelium slug phototaxis. In "Chemotaxis". Ed. T. Jin and D. Hereld. Methods Mol. Biol. 571: 67-76.

Annesley SJ, Fisher PR. (2009). Dictyostelium discoideum – a model for many reasons. Mol. Cell. Biochem. 329: 73-91.

Britto JM, Johnston LA, Tan S-S (2009). The Stochastic Search Dynamics of Interneuron Migration. Biophys J. 97: 699–709.

Cesare,A.J., Kaul,Z., Cohen,S.B., Napier,C.E., Pickett,H.A., Neumann,A.A., and Reddel,R.R. (2009). Spontaneous occurrence of telomeric DNA damage response in the absence of chromosome fusions. Nat. Struct. Mol. Biol. 16: 1244-1251.

Classen A-K, Bunker BD, Harvey KF, Vaccari T and Bilder D (2009). A tumor suppressive activity of Drosophila Polycomb genes mediated by JAK/STAT signaling. Nat Genet 41: 1150-1155.

Francione, L., Smith, P.K., Accari, S.L., Taylor, P.E., Bokko, P.B., Bozzarro, S., Beech, P.L. & Fisher, P.R. (2009). Legionella pneumophila multiplication is enhanced by chronic AMPK signalling in mitochondrially diseased Dictyostelium cells. Disease Models and Mechanisms. 2, 479-489.

Henson,J.D., Cao,Y., Huschtscha,L.I., Chang,A.C., Au,A.Y., Pickett,H.A., and Reddel,R.R. (2009). DNA C-circles are specific and quantifable markers of alternative-lengthening-of-telomeres activity. Nat. Biotechnol. In Press: doi:10.1038/nbt.1587.

Hotta R, Pepdjonovic L, Anderson RB, Zhang D, Bergner AJ, Leung J, Pébay A, Young HM, Newgreen DF, Dottori M. (2009) Small Molecule Induction of Neural Crest-like Cells Derived from Human Neural Progenitors. Stem Cells. 2009 Aug 26. [Epub ahead of print]

Jiang,W.Q., Henson,J.D., Neumann,A.A., and Reddel,R.R. (2009). Book Chapter In: Cancer Drug Discovery and Development. Protocol III: Detection of Alternative Lengthening of Telomeres. Humana Press. pp. 351-364.

Mönnich M, Banks S, Eccles M, Dickinson E, Horsfield J. (2009). Expression of cohesin and condensin genes during zebrafish development supports a non-proliferative role for cohesin. Gene Expr Patterns. 9(8): 586-94.

Ramm GA, Ruddell RG, Subramaniam VN. (2009). Identification of ferritin receptors:
their role in iron homeostasis, hepatic injury, and inflammation. Gastroenterology 137(5): 1849-51.

Reddel,R.R. Senescence: an antiviral defense that is tumor suppressive. (2009). Carcinogenesis.

Voss AK, Collin C, Dixon MP, Thomas T. (2009). Moz and retinoic acid coordinately regulate H3K9 acetylation, Hox gene expression, and segment identity. Dev Cell. 17(5): 674-86.

Voss AK, Thomas T. (2009). MYST family histone acetyltransferases take center stage in stem cells and development. Bioessays. 31(10): 1050-61.

Walton JR. (2009). Functional impairment in aged rats chronically exposed to human range dietary aluminum equivalents. Neurotoxicology 30: 182-193.

Walton J.R. (2009). Brain lesions comprised of aluminum-rich cells that lack microtubules may be associated with the cognitive deficit of Alzheimer's disease. Neurotoxicology 30: 1059-69.

Wallace DF, Summerville L, Crampton EM, Frazer DM, Anderson GJ, Subramaniam VN. (2009). Combined deletion of Hfe and transferrin receptor 2 in mice leads to marked dysregulation of hepcidin and iron overload. Hepatol. 50(6): 1992-2000.

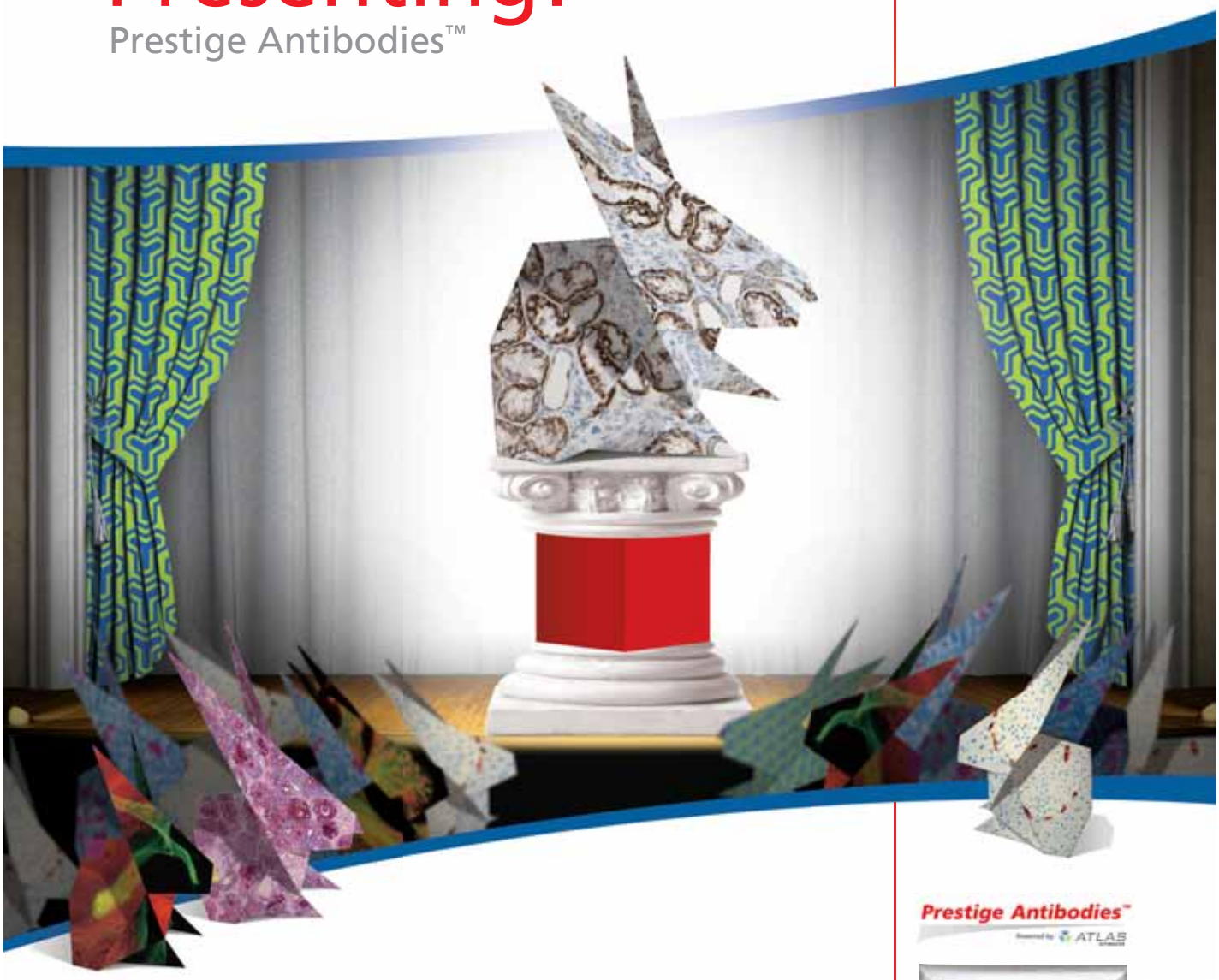
Wallace DF, Trinder D, Subramaniam VN. (2009). Hepcidin regulation by HFE and TFR2: is
it enough to give a hepatocyte a complex? Gastroenterology 137(3): 1173-5

Walton JR, Wang M-X. (2009). APP expression, distribution and accumulation are altered by aluminum in a rodent model for Alzheimer's disease. J Inorg Biochem. 103: 1548-1554.

Wang PY, Protheroe A, Clarkson AN, Imhoff F, Koishi K, McLennan IS. (2009). Müllerian Inhibiting Substance contributes to sex-linked biases in the brain and behaviour. Proc. Natl. Acad. Sci. (USA). 106: 7203

Presenting!

Prestige Antibodies™



Antibodies that work, right out of the box!

The most highly characterized antibodies in the industry —
1,800 NEW Prestige Antibodies™, Powered by Atlas Antibodies.

- Designed & validated by the Human Proteome Resource (HPR)
- Standardized in universal protocols
- Over 500 immunohistochemical images for every antibody
- Publicly available data on the web

Look even closer. Go to **sigma.com/prestige** for more information.

Our Innovation, Your Research — Shaping the Future of Life Science

Anti-BID Cat No. HPA000722
on A-431 cells shown in green,
nucleus in blue, microtubules in
red and endoplasmic reticulum
(ER) in yellow.

Just one of the over 500 IF,
IHC and WB images available

sigma.com

SIGMA-ALDRICH™

ANZSCDB Executive Officers & Committee Members 2009-2010

PRESIDENT: Edna Hardeman
Department of Anatomy
School of Medical Sciences
Wallace Wurth Building G27
The University of New South Wales
Sydney NSW 2052
Tel 02 9385 3760 Fax 02 9385 8016
e.hardeman@unsw.edu.au

PRESIDENT ELECT: Peter Currie
Australian Regenerative Medicine Institute
Monash University
Clayton VIC
p.currie@victorchang.unsw.edu.au

TREASURER: Katharina Gaus
Centre for Vascular Research
School of Medical Sciences
University of New South Wales
Sydney NSW 2052
k.gaus@unsw.edu.au

SECRETARY : Geraldine O'Neill
Oncology Research Unit
The Children's Hospital at Westmead
Westmead NSW 2145
Tel 02 9845 3116
geraldio@chw.edu.au

ANZSCDB Secretariat:
Ros Barrett-Lennard
Magic Touch Consultancies
Tel +612 9524 1799
Fax +612 9524 1744
Mob +61 (0) 419 688 581
anzscdb@mtci.com.au

IMMEDIATE PAST PRESIDENT:
Alpha Yap
Institute for Molecular Bioscience
Queensland Bioscience Precinct
The University of Queensland
St Lucia QLD 4072
Tel 07 3346 2013 Fax 07 3346 2101
a.yap@imb.uq.edu.au

NEWSLETTER EDITOR:
Megan Chircop
Chldren's Medical Research Institute
Locked Bag 23
Westmead NSW 2145
Tel 02 9687 2800 Fax 02 9687 2120
mchircop@cmri.com.au

STATE REPRESENTATIVES:

ACT: Radiya Ali
Australian National University
radiya.ali@anu.edu.au

NSW: Bill Phillips
University of Sydney
billp@physiol.usyd.edu.au

NSW: Thomas Fath
University of NSW
CNS.Cytoskeleton@gmail.com

QLD: Eva Kovacs
University of Queensland
e.kovacs@uq.edu.au

QLD: Dagmar Wilhelm
Institute for Molecular Biosciences
University of Queensland
d.wilhelm@imb.uq.edu.au

VIC: Ian Smyth
Monash University
ian.smyth@med.monash.edu.au

VIC: Peter Farlie
peter.farlie@mcri.edu.au

SA: Yessim Khew-Goodall
Yeesim.KHEW-GOODALL@health.sa.gov.au

SA: Bryan Haines
School of Molecular and Biomedical Sciences
University of Adelaide
bryan.haines@adelaide.edu.au

WA: Cecilia Prele
Telethon Institute for Child Health Research
Tel: +61 8 9489 7884
ceciliap@ichr.uwa.edu.au

WA: Aleksandra Filipovska
West Australian Institute for Medical Research
afilipov@waimr.uwa.edu.au

NZ: Christine Jasoni
Centre for Neuroendocrinology
University of Otago
Christine.jasoni@stonebow.otago.ac.nz

NZ: Maria Flores
m.flores@auckland.ac.nz