

# THE ANZAAS MERCURY

## ANZAAS: Empowering the Community with Science

∞ Issue No. 39, Dec 2008 ∞

### Editor's Edict



Please enjoy this, the 10<sup>th</sup> year anniversary issue of the Mercury! In this issue Mike talks up the value of alliances (Murray's Matters), and we look at lessons from conflict at a research centre about commercializing research (ANZAAS Debate). See News and Analysis for inside views on current news. We also welcome Rachel Morison's, next issue of the ANTENNA, as inserted. -Duncan Rouch

of the AAS in 1955 until the near demise of ANZAAS in 1997, the influence of ANZAAS had waned. Some stalwart hearts, from 1997 to the time when I took on the mantle of Chairman late in 2005, had fought to keep the ANZAAS flag flying; in particular by keeping the annual Youth ANZAAS event going without interruption. My ambition from the outset was to build on the sound, if modest, foundation that had been maintained over the previous ten years and to grow ANZAAS via new projects and programmes developed in alliance with groups in the Community. I had in mind the creation of an Association to parallel the present day British Association (the BA) in the UK. The BA had helped with the foundation of ANZAAS back in 1888.

My ambition over the last three years has been to bring ANZAAS into a collaborative forum where it can help do substantial good for science, via science advocacy, in synergy with other important Academies and Associations. ANZAAS is unique in being both a national body and one that is open to all Australian residents with an interest in science. By creating a forum with the above Academies and Associations ANZAAS



### Murray's Matters

Report From The Chair 2008  
By Mike MURRAY

#### The New Era of Alliances

I was buoyed by the progress we had made at ANZAAS' first face-to-face Council Meeting in ten years held in October 2007. It was particularly notable because the CEO (Professor Di McCarthy) of the Royal Society of New Zealand (RSNZ) was present to announce that RSNZ would be returning to ANZAAS after an absence of ten years. In a visit to New Zealand earlier in 2007 I had painted a vision of a 'New' revitalised ANZAAS and, by way of a trial, RSNZ sent a contingent of students to Youth ANZAAS 2007 in Perth. So impressed were RSNZ with the event that not only did they decide to return to the ANZAAS Council but they also requested to host Youth ANZAAS 2008, which they subsequently did with considerable success in Dunedin last July.

The second notable outcome from the October 2007 Council meeting was the decision to invite onto the Council four science-based organisations: the Australian Academy of Science (AAS), the Australian Academy of Technological Sciences and Engineering (ATSE), the Australian Science Teachers Association (ASTA), and Young Scientists of Australia (YSA). During the first half of this year (2008) all four agreed to participate in the ANZAAS Council. Over the years, especially from the formation

## Contents

<i>Editor's Edict</i> .....	1
<i>Murray's Matters- Alliances Take-Off</i> .....	1
<b>ANZAAS Debate: How to Commercialize Stem-Cell Research?</b> .....	2
<i>News &amp; Analysis</i>	
<b>New Zealand Passes Carbon Trading Bill!</b> ...	4
<b>Risks of Government Databases</b> .....	6
<i>Perrin's Points</i> .....	7
<i>Media Report</i> .....	8

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## ANZAAS

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to;

- (a) become the link between the Academies and its own grass-roots membership,
- (b) be positioned to help address a major perceived science failure with regard to science teaching in schools, and,
- (c) put ANZAAS in direct touch with the science orientated youth of the Country, which, after all, is ANZAAS' recruiting ground for the future.

In this way I refer to the renewed ANZAAS and its Council affiliates as the 'backbone' of science advocacy in Australia; a backbone or 'science advocacy continuum' which has not been in existence for well over ten years.

In New Zealand the RSNZ performs this coordination function within science advocacy and does much more besides. So, not only is it important to have 'the NZ back in ANZAAS' but the RSNZ is also a fine role model.

RSNZ, AAS, ATSE, ASTA and YSA are all now represented on the ANZAAS Council. It remains still though for us to work out the details of how ANZAAS is to engage fully with them. I had hoped that at about this time we would have convened our second face-to-face Council Meeting to progress this engagement and related issues. Unfortunately your Council (out of session) decided not to proceed, ostensibly because such a meeting would be too expensive, although I had the Treasurer's agreement. My estimate of between \$5,000 and \$10,000 (around 10% of ANZAAS' cash assets) for a two day meeting, including key Community guests, seemed a fair price to pay to plot ANZAAS' new future. As the old adage says 'One has to speculate to accumulate'.

## Learning from the Past

Members may be interested in the history of ANZAAS with respect to the Association's interactions with other scientific bodies over its life. I draw your attention to Chapter 2 in the book *The Commonwealth of Science – ANZAAS and the Scientific Enterprise (1888-1988)* edited by Professor Roy MacLeod and published by Oxford University Press (1988). In that Chapter written by Professor MacLeod, entitled *From Imperial to National Science*, you will see that the 'science advocacy continuum' concept is not new. It has appeared in various guises over the years and the current strategic course for ANZAAS can only be said to be a variant of these; specially fashioned I hope to suit our own contemporary period. Therefore, I hope to invite Professor (now Emeritus) MacLeod to address our next Council Meeting.

## ANZAAS Future

November 2008 marks the end of my first three year term as Chairman of the ANZAAS Council. The Membership of ANZAAS has now affirmed me in the Chairman's role, unopposed, for a further three years. It has to be assumed that my visions for ANZAAS into the future are shared by you all. The Council will need to take cognizance of your wishes and I expect to hold the next face-to-face two day Council meeting before 5 March 2009 to set the new agenda.

I have to say that I am very disappointed with our slow progress over the three years. Membership has continued to fall slowly and with the exception of Victoria all Divisions have performed very poorly based on the information available to me, with little activity and no apparent effort overall to attract new members and to otherwise enhance the Association. We desperately need new blood, new enthusiasm, new ideas and a dose of good funding! However, it's not all bad news.

It could be said of my first term in Office that I've taken the horse to water. The second term will be all about getting the horse to drink. The important and urgent need from the outset will be to raise funds from Governments (Federal and State),

Companies and Philanthropists. With well planned in-house and collaborative projects and programmes in development and with the backing of our powerful allies on Council we should be able to forge ahead.

One Divisional highlight that deserves a mention is the double event Sustainable Energy Forums that were staged in Melbourne during April by ANZAAS-Vic in conjunction with ATSE-Vic and the City of Melbourne. The two Forums were addressed by well respected sustainable energy leaders and were later broadcast by ABC National Radio. The aggregate audience for the two events was just short of 1500.

## Professional Secretariat

To carry out these plans we shall also need to establish quite soon a professional secretariat, consisting initially of two or three administrators. It is clear that a modern ANZAAS cannot be run with wholly voluntary labour. Funding for this secretariat must be in place by the end of 2009 if ANZAAS is to have a worthwhile future. Seeking this funding will constitute almost all of my effort on behalf of ANZAAS for the next twelve months. It goes without saying that I shall appreciate all the help and advice that I can get from the Membership.

## Advanced Website

At this point I'd like to mention the other big development of this past year. ANZAAS has acquired its own internet server and at last our Webmaster is able to give our website a thoroughgoing make-over. The change of format is already becoming apparent across the website and for those who have been watching developments on the Victorian web pages over the last couple of years there will be no surprises. Nevertheless, however good the layout, it will be all to no avail unless the information from across the Country (and that means from the individual Divisions) is kept relevant, lively and up-to-date. The New Website will be at the core of the New ANZAAS. The website should have a fast growing readership and be a major source of new members.

## ANTENNA & Youth ANZAAS

I'd like to make special mention of Rachel Morison, our young year 12 Editor of ANTENNA. She has done a magnificent job during the year in what turned out to be difficult circumstances as our Communications Team have been undergoing policy discussions and changes with regard to Mercury and the website. It is my hope that ANTENNA can be published directly onto the website in future enabling the publication to be readily accessible to all young students whether members of ANZAAS or not. Perhaps those students who are members of ANZAAS might be accorded a private dialogue facility so that their feedback can be used to help Rachel further develop the publication. Incidentally the current issues (September) of Mercury and ANTENNA, both focusing on Youth and in particular Youth ANZAAS 2008, have attracted an unusually large amount of positive comment.

There were two other decisions and one ongoing development that occurred this year and that the membership should be aware of. It has been decided that Youth ANZAAS 2009 will be held in Melbourne next July and Youth ANZAAS 2010 is being planned for Sydney in conjunction with ASTA's National Congress, CONASTA. (The collaboration with CONASTA follows the successful collaboration in Perth in 2007). The third issue relates to the formation of a Queensland Division. I've been trying, with the help of the Queensland State Government, for most of my term to set up ANZAAS-Qld. Just recently a new initiative has sprung into life there and I hope that next year I will be able to report that ANZAAS-

Qld is in operation and, with luck (better late than never) Youth ANZAAS 2011 could be hosted by the new Division in Brisbane.

For those of you who have followed my columns in Mercury over the last few years there will be no surprise in the strategy that has guided ANZAAS over the last year. I think it is fair to say that on balance ANZAAS has taken three years to turn the corner. From here on in the figurative foot will have to be firmly on the accelerator. Finally, for any doubters, I borrow

those ringing words of late issuing from another Continent – “Yes we can”.

Mike Murray, 26 November 2008  
Chairman, ANZAAS Council ( chair@anzaas.org.au )

**“Your Chairman wishes to take this opportunity to wish all our Members and their Families a Very Merry Christmas and a Happy New Year”.**

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## The ANZAAS Debate - How to Commercialize Stem-Cell Research?

By Duncan ROUCH

The moment of truth has arrived for a faltering attempt to kick-start Australia's stalled biotech industry, reported the Science magazine, 28 October 2008(1). In July this year, the board of the Australian Stem Cell Centre sacked CEO Stephen Livesey over disagreements about how quickly ASCC should seek to spin off products. A month later, the board itself stepped down. "From 1000 feet, it looks like a disaster," says ASCC founder Alan Trounson, who left in 2003. After a traumatic several weeks, a concerted effort is under way to steer ASCC back on course as an interim board has drafted a new strategic plan.

ASCC's future depends on whether the government's Department of Innovation, Industry, Science and Research,



Alan Trounson, founder of ASCC.  
Source: California Institute For Regenerative Medicine

which has bankrolled the centre's initial 9 years, will accept the new plan. "There's excellent research going on, but the business model just wasn't going to work," in part, because of its emphasis on rapid commercialization, argues endocrinologist and former CEO of the Australian Research Council Vicki Sara, who chaired the ASCC board that resigned en masse.

According to its charter, ASCC must also commercialize its research. "The

ASCC's vision is to undertake research of the highest quality in the stem cell field, in order to discover and ultimately commercialise new therapies for human disease", states the ASCC website.

But from the start, the centre's leadership has been arguing over how that should happen. The previous board asserted that ASCC should capitalize on its research through patents and licensing agreements. Livesey was keen on pushing a product through the pipeline and spinning off a company to attract outside investment. "I've always been a risk taker,"

Livesey says. "But clearly that degree of risk-taking wasn't for everyone."

ASCC placed its commercial bet on developing blood cell products and spinning off a start-up by 2011. First would be a novel "off the shelf" treatment for cancer patients: neutrophils derived from stem cells in cord blood or donated blood, based on research by an ASCC-funded lab led by Lars Nielsen at the University of Queensland. Other projects in the pipeline were drug candidates to replace hormones now used to stimulate blood cell regeneration in cancer patients, a stem cell bioreactor, and blood products from embryonic stem cells. Nevertheless, 90% of ASCC's R&D budget has been invested in fundamental research, on projects such as how to coax stem cells to form blood, lung, and kidney tissues.



Stephen Livesey, Former ASCC CEO.  
Source: ASCC

Some observers say that staking ASCC's success on a product was unrealistic and unnecessary. "We think there will be other ways of sustaining the centre beyond 2011," such as entering into partnerships with biotech companies, providing stem cell-cultivation services, and intellectual property consulting, says acting CEO David Collins.

Underlying this conflict between Stephen Livesey and the ASCC board is the cultural differences between the bold entrepreneurial approach of Livesey and the long-term research view of members of the board, especially during 2007. Livesey had founded the U.S. biotech company LifeCell, and knew how to get products to market by focussing on the arrays of short-term challenges needed to develop biotechnology products. Alan Trounson saw the centre as fundamentally research-driven. "Stem cell science needs a really long period of research," he says. "I couldn't see how you could commercialize in that time frame."

In this conflict we see the three common ways for linking fundamental research to developing commercial biotechnology products. These approaches vary both in their degree of interaction between the research and commercial worlds and the risks involved:

(1) creating intellectual property from research knowledge through patents and licences for commercial use, a hands-off means with minimal risk,

(2) providing research services for existing companies through consultations, requiring a degree of interaction but also with minimal risk, and

(3) creating start-up companies to convert fundamental research to commercial products, very much a hands-on tactic with high risks of failure, but strong opportunities if successful.

In 2006, an independent review by a consulting company supported the centre, but warned that the management, board, and consortium members lacked a common vision for ASCC's future. Clearly there was confusion over which ways to link fundamental research with commercial applications, which led to the conflict over commercialization between Livesey and the ASCC board.

Perhaps the lesson here for all research consortia with potential commercial outcomes is to begin with clear and agreed commercialization strategies. An effective strategy should state how and when the research could provide commercial products. When Alan Trounson hired Stephen Livesey back in 2002 we may imagine that he thought that Livesey would help produce commercial therapies based on research, when the opportunity would be clearly flagged at some long time in the future. In contrast, Livesey, as well as to manage fundamental research at ASCC, may well have thought that he had been hired to spin off research results to create a start-up company as soon as possible. With 20/20 hindsight we might say that if the ASCC had begun with, and maintained, a clear and well communicated commercialization strategy, the divisive conflicts that occurred across later years might have been avoided, or at least controlled.

## Reference

1. Finkel, E. (24 October 2008). Last-Ditch Effort to Save Center at Vanguard of Stem Cell Research. *Science*: 322: 524 – 525.

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# News & Analysis

## New Zealand Passes Carbon Trading Bill!

By Jim REGAN\*

Wednesday 10<sup>th</sup> September. New Zealand passed a climate change bill that will set up the country's first greenhouse gas emissions trading scheme and help it meet obligations under the Kyoto Protocol, the government said.

Trading of carbon credits begins in 2009 and Wednesday's parliamentary approval means the system is the first national cap-and-trade scheme outside Europe. New Zealand is joining 27 European Union nations that adopted a continental emissions trading scheme in 2005. Several other countries, including Canada and Japan, are developing national schemes as well. Australia has set a 2010 deadline for its scheme to begin operation.

The bill faced a rocky path to approval by lawmakers, with the minority-led government forced into months of negotiation with the Greens and New Zealand First parties to win majority support. The bill passed into law after a 63-57 vote in parliament.

The Climate Change (Emissions Trading and Renewable Preference) Bill will eventually bring all sectors of the economy under a regime that sets limits on the amount of carbon they can emit. Those that breach their limit will have to buy credits, called NZUs and representing the equivalent of one metric tonne of carbon dioxide (CO<sub>2</sub>), from users that produced emissions below their ceiling. Participants can also import credits representing reductions made abroad, in a global trade worth over \$13 billion last year, according to the World Bank.

Market estimates of the price per tonne of carbon have ranged from NZ\$15 to NZ\$25 (AU\$12.3 to \$20.5), though some analysts suggest it could be up to NZ\$50 after recent amendments to the bill. By comparison, carbon credits issued under the European Trading Scheme were trading at €16.15, euros (AU \$31.6) a tonne, this November in the UK.

The New Zealand trading scheme will phase in sectors across the economy and includes all emissions from forestry from 2008, stationary energy such as coal-fired power stations by 2010, transport fuels from 2011 and agricultural waste by 2013.

About 60 percent of New Zealand's power comes from hydro-electricity, while agricultural emissions, such as methane from livestock, comprise about 47 percent the nation's total greenhouse gas emissions.

## Climate-Friendly Investment

The plan would act as a catalyst to bring forward clean technology and would create incentives for climate-friendly behaviour and investments, according to David Parker, Minister for Climate Change. "For the first time we will start factoring in the true cost of greenhouse gas emissions into our economy," Parker said.

Provisions in the bill meant New Zealand could meet its obligations under the Kyoto Protocol while helping the country reduce emissions at the lowest possible cost, Parker stated.

"It does so in a fair and effective way by charging the polluter for increases in emissions and rewarding decreases," the minister asserted. New Zealand has said it aims to be "carbon neutral" in the total energy sector by 2040.

The carbon market had mixed reaction to the bill, citing the long delay in the phasing-in of other sectors of the economy into the scheme.

"It's obviously good news whenever we get a bill like this passed ... but we won't see the rest of the scheme for a couple years because it has a phased-in beginning," Trevor Sikorski, director of carbon market research at London-based Barclays Capital, said. "It's really from 2010, when most of the big power producers come in, that it starts to look interesting." Sikorski notes the proportion of the country's emissions to be captured before 2013 will not exceed about 40 percent of the total, covering only 25 million tonnes of CO<sub>2</sub> per year.

Scheme participants will receive free permits representing 90 percent of their 2005 emissions. From 2019, the free allocation will be slowly phased out until 2029, when all permits are to be auctioned.

The scheme also delays to 2013 the entry of credits representing imported cuts in hydrofluorocarbons and perfluorocarbons, waste products from making refrigerants. These chemicals are also highly potent greenhouse gases.

Trade in these credits, which has made up more than half of the \$13 billion market, has drawn criticism because plants can

make lucrative profits generating and destroying the gases compared to not producing them at all.

*\*Reuters News Service*

# What Are the Risks of Government Databases?

By Paul ADAM\*

Throughout history governments have understood the importance of collecting and collating information. The Romans conducted population censuses and one of the first acts of the Norman conquerors of England was the compilation of the Domesday Book.

Today we live in an age where more information is being collected and kept than at any previous time. Increases in computing power and the development of new techniques of data analysis have led to new fields of investigation into data mining and geographic information systems. Analysis and manipulation of large data sets is no longer just the province of governments but is also of increasing importance to the private sector.

Governments are supporters of the expansion of data bases, but the public are more ambivalent. (For example, popular television crime series have increased awareness of the potential of DNA databases to assist in solving crimes – and this is regarded as a ‘good thing’, on the other hand many of the public would be extremely reluctant for information about their DNA to be included in such data bases). Public concerns centre upon the integrity, security, accessibility and ownership of data held by governments and companies.

Humans are fallible - involvement of humans in the processes of data collection and entry inevitably carries a risk of error. The public is concerned that incorrect information about them is on record.

The issue can be addressed by quality control procedures and by giving people the right to check records that refer to them – but this is difficult if the existence of particular data bases is unknown to those who might be identified on them.

The security (or lack thereof) of data bases has been highlighted by several recent instances in the UK where a number of files containing sensitive information have been lost or mislaid (including social security records for a large part of the population). One matter which emerged in some of these cases is that data may be entered and stored in other countries, and, for cost saving reasons, this is unlikely to be a practice restricted to data originating in the UK. These issues can be addressed by development of protocols and adherence to them, but human nature being what it is complacency will set in and accidents will happen. Data bases are vulnerable to attack and sabotage by hackers. This is a risk that many members of the public are familiar with through viruses and spam on their home computers, and while one would hope that protection on sensitive data bases is better than that on the average PC they will not be immune. Even if hackers do not have malicious intent, but are merely rising to the challenge of cracking new levels of security, data bases will be prone to corruption and there will be a constant arms race to protect data from attack.

These issues of integrity and security are not unique to the electronic age. Errors in recording and transcribing information would have occurred in the pen and paper era, and there would have been opportunities for falsifying entries. We can never know the extent to which these problems infected historic records, but the potential scale of problems with electronic data is, I suspect, much greater.

When data are supplied, willingly or unwillingly, to a data base there is a hope that the information will be used for the

purpose, or within the context, for which it was collected. However, for the most part we do not know who will have access to data bases or for what purposes. From the perspective of governments there is much that might be learnt from combining seemingly totally unrelated data bases; while scientists can devise many interesting hypotheses which can be tested by combining and manipulating data bases. The difficulty with adding two and two is that sometimes five represents a new insight and at others an erroneous conclusion. In the context of the war on terror, governments welcome the opportunity to mine data bases, but the public is concerned about the invasion of privacy and Big Brother (articulated in the lead editorial of the Sydney Morning Herald of 22 September).

Information has become a commodity which can be bought and sold. Governments increasingly view their data bases as valuable assets so that free access is prevented. Given that the data refers to tax payers, and collection was at public (i.e. tax payers) expense there is, understandably, some anger when it is revealed that information has been sold to third parties.

Vast amounts of data stored on paper will over the centuries have been lost – through fire, flood, pests and deliberate destruction. However, what is remarkable is how many of the old records have survived (not just the Domesday book, but numerous parish records, census returns, estate records etc). This information is not only of interest in its own right as a historical record, but is valuable for research in fields such as demography and epidemiology. What is the long term future of current data bases? Although it is easy to collect and store vast amounts of information it is also easier for the same information to ‘disappear’. Even if no deliberate action is taken failure to routinely transfer data to new systems, or, conversely, to maintain both the hardware and software to access data then effectively we will not be able to ensure survival of information decades hence, let alone centuries into the future. The major public concerns refer to access in the here and now, but much of the value for scientific investigation lies in being able to look back, and we cannot predict what our descendants will be able to use data for.

Scientists need to understand, and be responsive to, concerns over privacy and misuse of data, but we also need to explain how the ability to analyse very large data sets will bring positive benefits not only now but in the future.

*\*Paul Adam is the former Chairperson of ANZAAS.*

# Setting Independence of Public Research

By Duncan ROUCH

Wednesday, 19 November 2008. Senator Kim Carr, Minister for Innovation, Industry, Science and Research, Australia announced a new framework for research independence and responsibility with the signing of charters for four major public research agencies.

For the first time in Australia, charters outlining the freedoms and responsibilities of public research agencies have been drawn up between government and the public research agencies, entrenching the rights, but also the obligations, of scientists and other researchers to participate in public research debates.

Under previous governments some research was censored and many researchers did not feel free to take part in public debate.

The charters are designed to rebuild the confidence of the science sector.

If ideas are to be successfully applied, they must be debated in public. Robust debate on research issues is a sign of the health of Australia's innovation system.

The Minister and Chairs of the Boards of CSIRO, the Australian Institute of Marine Science (AIMS), the Australian Nuclear Science and Technology Organisation (ANSTO) and the Australian Institute of Aboriginal and Torres Strait Islander Studies (AIATSIS) have signed the charters. The charters entrench a set of General Principles, which are:

1. Encouragement of open communication and dissemination of research findings,
2. Encouragement of debate on research issues of public interest,
3. Recognition of the role of researchers in such communication and debate,
4. The contestability of ideas,
5. Independence and integrity of public research agencies in their research activities,
6. Government responsibility for policy formulation and implementation.

These charters were developed during 2008 following extensive consultation with research agencies and vary slightly to reflect the specific circumstances of the agencies.

Text of the charters and further information is available at "<http://www.innovation.gov.au/ScienceAndResearch/Pages/ResearchAgencyCharters.aspx>".

## Synchrotron Science - From a Distance!

By Jennifer COOK\*

Soon Perth scientists fascinated about beating corrosion will be able to access the \$200 million Australian Synchrotron, located in Melbourne, without leaving home.

Remote access to the synchrotron became a step closer last August when Perth scientist Roland De Marco drove the synchrotron research beam in Melbourne as his colleagues and students watched in Perth.

He was researching the nature of rust - or more accurately corrosion - in the mild steel pipes that carry oil and gas from the ocean deeps to the surface. Rust is a critical issue for De Marco, a Professor of Chemistry at Curtin University.

Corrosion costs account for over three per cent of Australia's GDP, and surprisingly the chemistry of corrosion is not well understood. De Marco is tackling the issue in mild steel pipes. If he can understand the chemistry, with the help of the synchrotron, then it could lead to corrosion proof treatments for industry.

"In certain critical areas in oil production stainless steel pipes are installed," he says. "But stainless steel is too expensive to produce for long expanses of pipe, so mild steel is used." But mild steel has a problem - the carbon dioxide present in the mixture of oil and seawater pumped through the pipe causes corrosion.

Using the high brilliance of synchrotron light, De Marco can view the chemistry of the metal surface in its fluid environment. "What I want to do is to develop new materials to bind to the surface that will prevent corrosion of the mild steel," says De Marco.

De Marco has had 10 visits to the Photon Factory, a synchrotron facility at Tsukuba in Japan, for his research. Now he has some research beamtime at the Australian Synchrotron this December.

His pilot study at the synchrotron last week surprised him. "I can get better results more quickly in Melbourne than in

Tsukuba," explains De Marco. "In Melbourne the detector captures real-time measurements and gives you instant feedback."

In Melbourne, De Marco can detect a particular pattern after 40 seconds that would take 1200 seconds to detect in Tsukuba and he doesn't have to wait hours for the results to be processed.

But De Marco is even more excited about two developments in synchrotron access: being able to use the synchrotron remotely and getting undergraduate students involved. Professor Rob Lamb, Director of the Australian Synchrotron said "remote access will vastly increase the utility of this national facility and will mean every corner of Australia as well as our overseas collaborators will have easy access to synchrotron science".

De Marco's experiment was broadcast back to Perth live. In the future, the remote students will be able to get the full hands-on experience, directing the experiment themselves.

Remote access is currently set up for the protein crystallography beamline, which is being used by students in Queensland. The remote access project, known as the virtual beamline, is being supported by VeRSI, the Victorian eResearch Strategic Initiative.

*\*Australian Synchrotron*

## New Water Buy-Backs

By Duncan ROUCH

Two new tenders to purchase water entitlements to help restore the health of Murray-Darling Basin rivers and wetlands were announced in the last quarter of 2008, by Minister for Climate Change and Water, Penny Wong. Willing sellers of water entitlements in both the northern and southern areas of the Basin were invited to respond to the tender.

These followed the first tender that began in February 2008, which allocated \$50 million to purchase water in the Murray-Darling Basin. This tender closed on 16 May 2008, and outcomes have been made available on the web: <http://www.environment.gov.au/water/mdb/entitlement-purchasing/2007-08.html>

We are delivering on our election commitments to purchase water for the rivers and to establish a new, independent authority to manage the Murray-Darling Basin in the national interest, Senator Wong said. The Rudd Government has committed a total of \$3.1 billion to buying back water entitlements to give Murray-Darling Basin rivers and wetlands a greater share of water when it becomes available.

We are facing a critical situation in the Murray-Basin which is the result of years of over-allocation, drought and climate change, Senator Wong stated. The tender being announced today will help us move towards restoring Basin rivers and wetlands to health.

The Government looks forward to receiving offers from willing sellers that can deliver water to high value environmental assets and represent good value for money.

With a process currently underway in some parts of Queensland to separate water entitlements from land, conditional contracts will be struck as necessary with sellers ahead of that process being finalised.

Senator Wong said the new tender would be informed by feedback from a Stakeholder Consultative Committee established to assess the Governments first water buyback tender, conducted earlier this year.

We expect this new tender will build significantly on the first ever Federal Government water tender that secured around 35 billion litres of extra water entitlement for Basin rivers and wetlands, Senator Wong said.

# Perrin's Points

NOTICES TO MEMBERS FROM THE HON. SECRETARY



*Has the office got your **current and correct** e-mail address for the ANZAAS Discussion list?*

**DIVISIONAL MEETINGS** – Members are urged to support Divisional meetings of all kinds, and to particularly encourage the younger members to organise and participate in Divisional activities.

It is crucial to the long-term survival of ANZAAS as a credible entity that the younger members begin to be brought into the management of the Association. Also, Divisional meetings can be good recruiting grounds for new members.

The full list of Divisional representatives on Council is not yet available at the time of going to press; names and contact details will be posted on the website ASAP and will appear in the March issue of the Mercury.

# Media Report

By Victor BIEN

## Sometimes You Get an Alignment of The Stars



Again this is in a relatively "high brow" medium but perhaps that is about the best we can hope for and perhaps all we really need is to connect with "opinion leaders" and pollys? In the "News Review" section of a Saturday issue of the SMH on 11 October we got three prominent articles that got eyeballs for science. The major one

was a profile of Penny Sackett the newly appointed Australian Chief Scientist. It was a full page spread with an appealing photo of her standing outside presumably the building where she is based. Her ascension to that throne was particularly newsworthy because she is a woman and one who trained initially in theoretical physics, surely a male domain, made significant contributions in a glamour field of searching for extra-solar planets and other aspects of astronomy and astrophysics, came from overseas to head the Mount Stromolo Observatory only to have the place burnt to the ground in the Canberra bushfires of 2002 and then having to build it all back up again over a five year period. Robyn Williams' Science Show had a segment about her as well, the week before.

Over the page there was an article titled, "Scarred in the quest for beauty". This was about how cosmetic surgery has

seriously damaged many women. Out of the half page spread were the words, "Its not as simple as turning on a machine; they need to know about health and body science". Well from us scientists' perspective "hear, hear" but why did it have to come to this? It is a tragedy that the realisation science is terribly important to know, understand and be skilled about has to come by such brutal instrumental means. As a matter of philosophical interest I heard somewhere a comment that the societal urge or drive for women to have iridescent hairless skin descends from the Greek notion of beauty as portrayed by Venus. However, the rationality that science offers as to what it can achieve regardless of what the objective is was, in this case, undoubtedly impeded by religious inspired inhibition that anything pleasurable and encouraging of lust was sinful and to be repressed. Only by the pressure created by so much suffering that the authorities gain a mandate to "do something". Then the neutral rational capabilities of science get recognised.



Over a couple more pages was another near full page spread this one about a dramatic consequence of climate change. Like the other two articles it was accompanied by a photo this of a man living in the Bangladeshi delta. There

was a map inset showing where he is located. Millions of people in this area will have to be resettled in the near future if not the next storm surge or cyclonic flood. In the mainline media you get articles such as this showing the terrible reality of climate change. Now the climate change deniers' noise hardly gets any run in the mainline media.

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