

THE ANZAAS MERCURY

ANZAAS: Empowering the Community with Science

∞ Issue No. 37, June 2008 ∞

Editor's Edict



In this issue we report on a global opportunity for Australia to genetically enhance food (ANZAAS Debate), ANZAAS public interest (News and Analysis) and ANZAAS future (ANZAAS News, p1). We also welcome Rachel Morison's, next issue of the ANTENNA, see it inserted.

-Duncan Rouch



Murray's Matters

Comment From The Chair
By Mike MURRAY

ANZAAS' Future Belongs to You

If you are reading this article you are most likely a member of ANZAAS. This article is aimed directly at you. You pay your annual subscription to ANZAAS because it represents value for your \$45 (less in some cases). What constitutes value may vary from one Member to the next. Maybe the thought that you are keeping something old functioning (120 years old to be precise) is value enough. Maybe receiving *Mercury* and/or *Antenna* is enough value for your money. Or maybe value is derived from the more benevolent motivation that ANZAAS is a body with a national vision and potential representing a unique and important role in the scientific fabric of the Australian and New Zealand communities; that is to say you are glad of the opportunity to be one of the relatively few who contribute to ANZAAS to the benefit of not only yourself but the community as a whole. Of course value is a mixture of the above, but to those of you for whom the last value proposition is paramount please read on.

I have been your Council Chairman for over two years now and I have been putting the Association through a cultural change. This change was foreshadowed by a document that I wrote in early 2005 entitled '*Preparing ANZAAS for Growth over the*

next Five Years'. I submitted this document to the ANZAAS-Vic Committee. The Committee made some changes to it and by a majority decision it was submitted in turn to the ANZAAS Council. Some time later I was elected Chairman of the Council. The Council had given me a mandate to carry out the changes that I and ANZAAS-Vic had put forward.

I am well aware of the aphorism often attributed to Malcolm Fraser, viz 'Life wasn't meant to be easy', and bitter experience through years sitting in redundant internal committees in CSIRO had taught me how apt is this phrase when a mature and inflexible organisation has to have the blowtorch of cultural change applied to it to ensure its very existence.

In years gone by ANZAAS was at the apex of the science establishment in Australia (although maybe less so in New Zealand). As far as the Australian and New Zealand public were concerned ANZAAS epitomised science through its magnificent science congresses held at about 18 month intervals. The last of these congresses took place in Adelaide in 1997 and coincided with a temporary collapse and change in the fortunes of the Association. In some ways ANZAAS had

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ANZAAS

Australian and New Zealand Association for the Advancement of Science
The University of Adelaide, Adelaide, South Australia 5005
Telephone: (08) 8303 4965 Facsimile: (08) 8303 4965
E-mail, ANZAAS: info@anzaas.org.au Web-site: <http://www.anzaas.org.au>
ABN: 79 883 488 910
ANZAAS Mercury, E-mail: newsletter_editor@anzaas.org.au
Editor in Chief: Duncan Rouch; ANTENNA Editor: Rachel Morison



been too successful; its 'sections' or scientific disciplines over time went off to become independent entities; the Academies had been formed; thus depleted, ANZAAS struggled for relevance.

Today there is a new vision for ANZAAS. Ultimately in a democracy science will only succeed if the people **want** it (note the difference between 'need' and 'want' here). It is the task of a newly rejuvenated ANZAAS to ensure that the people do in fact not only need but want science as an important pillar in their community. That they see the value of science in delivering technological, medical and engineering solutions; sometimes for creation of the means to a better life for all, sometimes to address the unforeseen problems associated with our mature technologies and sometimes to push the frontiers of knowledge and human experience and so raise the collective human spirit to new heights.

A quick look at the ANZAAS website will show that ANZAAS-Vic is in the vanguard of the ANZAAS cultural change. ANZAAS-Vic is collaborating with like minded organisations. It stages regular public science talks of its own and promotes public science events staged by others. It is collaborating with local Government and has a growing list of sponsors. It has a large Committee in which every Committee Member has one or more allocated tasks. Currently, seven of ANZAAS' 17 Federal Councillors reside in Victoria.

ANZAAS-Vic's latest and most successful venture in recent years was its staging in April of two public Forums entitled ***Energy and Climate Change: Science and Technology for Australia's Future***. ANZAAS-Vic combined forces with the Academy of Technological Sciences and Engineering and the City of Melbourne to stage this two part event which attracted an aggregate audience of 1,400.

The recent enlargement of the ANZAAS Council to include the RSNZ, AAS, ATSE, ASTA, and YSA has reversed the previous trend towards isolationism and has brought ANZAAS back to being an inclusive Association well linked to

the important scientific groupings in Australia and New Zealand. In particular this juxtaposition of the best scientific brains in our region of the world with the best science teachers and the drive of youth makes ANZAAS potentially an important forum for national science based discussions and a source of informed advice on science education; but more importantly ANZAAS potentially has the means to grow and mobilise its membership to become involved in the practice of the very solutions that need to be adopted to help science teachers defuse the crisis that has beset us in science education in schools.

In the same spirit of collaboration ANZAAS has brought together leading lights from four learned societies in Australia and New Zealand representing Anthropology, Botany, Geology and Zoology to advise the ANZAAS Council on nominations for the Mueller Medal. Details of this new Advisory Committee are given on page 7 in this issue. I thank our Treasurer, Norman Trueman, for setting up this Committee and am thankful also to its new Members for beginning their task with noted enthusiasm.

I urge all Divisions of ANZAAS to work collaboratively with the science based organisations, City Councils and Governments in their respective States. These are times when the public needs to have an understanding of science and its technological implications if the democratic process is to cause Governments to maintain internationally competitive expenditure on science. ANZAAS is an important link in the chain that can help raise public interest in many ways and so also assist in ensuring that supply of scientific and technological skills meets the nation's demands.

Mike Murray
(chair@anzaas.org.au)

ANZAAS News

ANZAAS Moves Ahead in its 120th Year

The Growing Council Expands its Roles

1. ANZAAS is restructuring and introducing new events and programmes. These changes are designed to enhance ANZAAS' ability to carry out its broad aims of public advocacy of science, inspiring the young in scientific thought and endeavours, and providing a forum for multidisciplinary exchange between scientists and the public. A decade old, but suddenly very relevant, perspective can be found at <http://www.abc.net.au/rn/ockhamsrazor/stories/1997/348.htm>

2. ANZAAS has celebrated its 120th Anniversary by expanding its Federal Council to include representatives from 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). Last year the Royal Society of New Zealand (RSNZ) rejoined the Council of ANZAAS after an absence of ten years.

3. The expanded Council will establish ANZAAS as an important national forum linking the best scientific brains in Australia and New Zealand to our most influential science teachers, our young up and coming science talent, scientists and anyone interested in science throughout the community. The expanded Council **creates a continuum within the**

broad scientific community that has been lacking in Australia for many years.

4. Not only will ANZAAS be a forum for scientific debate but it is looking to **increase and mobilise** its broad membership to assist with practical educational projects at primary and secondary school levels. ANZAAS has embarked on a course to help resolve a crisis in science education which in a few short years will, in the absence of **coordinated** effort, seriously further deplete the technical skills base that supports our current affluence.

Youth ANZAAS

5. ANZAAS is working to build on its Youth ANZAAS programme for years 10 to 12 school students which has been running successfully for over sixty years. This year's Youth ANZAAS forum will take place in Dunedin, New Zealand, in July. Approximately 50 students will attend. Parents and school teachers are encouraged to advise eligible students that applications are now being received for the competitive travel grants (details are posted on respective State webpages located on the ANZAAS Website www.anzaas.org.au).

6. This year, by way of a trial, ANZAAS is encouraging a few students attending Youth ANZAAS 2008 to be ANZAAS Youth Ambassadors. On returning home they will be expected to assemble a small team of their peers and lead a scientific project approved by ANZAAS. Ideally this endeavour would be designed to demonstrate application of and generate enthusiasm for the science taught in the school curriculum. In future years ANZAAS hopes to attract retired scientists, technologists, engineers and medical practitioners etc., people

with high level scientific skills acquired over their working lives, to become accredited ANZAAS Mentors to supervise these groups alongside the science teachers. If this year's trial is successful the programme is expected to extend to all Youth ANZAAS attendees within a few years.

7. A fund (later to be converted to a trust) is being established, the Education and Medals Fund, to ensure the maintenance of ANZAAS' prestigious Medals (Mueller and ANZAAS Medals). The fund is initially to be linked to a new Mueller Medal Award Committee recently set up to include distinguished representatives from four scholarly science societies and to be related to a new session within the Youth ANZAAS programme to which local science teachers will be invited to join the students in attendance to hear presentations from among the four societies. In time it is envisaged that other trusts will be set up so that sponsors can direct their donations securely to specific activities of their choice.

8. ANZAAS is planning to introduce themed ANZAAS Science Festivals with high educational content in collaboration with various government agencies, institutions and businesses. It is intended to stage these festivals at one or two year intervals in capital cities around Australia and New Zealand. ANZAAS is currently in negotiation with the SA Government to stage the first such festival, *The Mawson Centenary Festival*, which it is expected will take place in Adelaide sometime during the period 2012/13 to commemorate Sir Douglas Mawson's Australian Antarctic Expedition. A lesser celebration is being planned for 2009 to commemorate Mawson's return to Adelaide after his first Antarctic Expedition when he accompanied Sir Ernest Shackleton's British Expedition and was the first to reach the South Magnetic Pole.

Divisional Highlights

9. On 21 and 28 April ANZAAS-Vic co-hosted two exceptionally successful public Forums at the BMW Edge Theatre in Federation Square entitled *Energy and Climate Change: Science and Technology for Australia's Future*. The events were staged in collaboration with ATSE and Melbourne City Council's 'Melbourne Conversations' together with the assistance of 'Future Leaders' and ABC Radio National. Presentations were given by leading Australian energy scientists/technologists. The first Forum discussed *Renewable Energy: Solar, Geothermal and Wind*. The second discussed *Non-renewable Energy: Coal, Gas, CO₂ sequestration and Nuclear*. There were full house audiences for both Forums and the aggregate audience was estimated to be in excess of 1400. As a consequence of this success ANZAAS-Vic and its partners are planning to stage science based events of interest to the public on a regular basis.

10. The Victorian Division of ANZAAS holds Wednesday evening monthly science talks (with free pizza supper and refreshments) entitled *Melbourne Talks Science*. This year audiences have increased five fold and memberships are rising.

11. ANZAAS-Vic has also initiated a programme now entitled *Science to the Country* in which it collaborates with the Mechanics Institutes of Victoria Inc., the Royal Society of Victoria, and the Science Teachers Association of Victoria. Using the country volunteer force of the Mechanics Institutes and their largely renovated and historic halls, scientists, usually from metropolitan Melbourne, are invited to make scientific presentations in regional areas. These talks have proved to be immensely popular with the local people and the scientists who have taken part have been impressed by the attentiveness and enthusiasm of the audiences.

12. The South Australian Division of ANZAAS is proposing to run a trial Summer School for Science Teachers in Adelaide next year which has attracted some funding from Industry

sponsors. This initiative was to have proceeded this year but last year the previous Federal Government set up its own Summer School scheme with the science component hosted by Flinders University. There is some speculation about the continuance of the Summer School scheme by the new Federal Government and in the event of the scheme's demise ANZAAS and Flinders University will discuss the potential for jointly proceeding with an independent Summer School for South Australian science teachers starting next January. As with ANZAAS' other trial programmes, if successful, the intention is to make the event (or events) generally available to science teachers from all over Australia and New Zealand.

Building Web-Readiness

13. To keep its members and the public abreast of the growing programmes ANZAAS is streamlining its communications. High priority is currently being given to reorganizing the ANZAAS website to provide a user friendly medium for information about ANZAAS events and programmes, about other scientific events involving the public and provision of web links to many other sites of interest, national and international. In due course the website will be subject to a complete professional upgrade. To catch the attention of school age students the ANZAAS young peoples' news sheet *Antenna* is moving from hard copy to the web site which will enable the introduction of interactive elements to stimulate interest and provide fast feedback to the editors. Recently in recognition of the widespread use of on line networking by University students and others of similar age ANZAAS has opened up a site on *Facebook* which is attracting rapidly growing interest. The Members' Newsletter *Mercury* is already improving in content and as soon as funds allow it will also be subject to upgrade in format and overall presentation.

Expanding Our Impact

14. It is clear that success with small scale trials of new programmes will quickly require ANZAAS to transform from a wholly volunteer association to a professional not for profit organisation as programmes role out across Australia. ANZAAS will need to acquire professional office staff to run its HQ in Adelaide and might also need extra professional staff in some of its busier state Divisional offices. Putting in place and maintaining this infrastructure will have to be paid for. Already as ANZAAS has begun to transform and grow, sponsors have come forward to fund some of our activities. As we grow to the point where we attain a national significance again we anticipate that sponsorship will increase as also will funding from Federal and State Governments. In this regard we'd hope to follow in the path in recent years of the British Association for the Advancement of Science (The BA) in the UK (*Google 'The BA Annual Review' – click on [Annual Review](#) and go to page 16 for the long list of corporate and other supporters*).

15. Details of ANZAAS' programmes can be found at www.anzaas.org.au. For enquiries contact secretary@anzaas.org.au or chair@anzaas.org.au.

Sponsors

16. ANZAAS wishes to thank its sponsors over recent years: The Commonwealth Government, The Victorian Government, BHP-Billiton, CSL, Santos, Freemasons New Zealand, CASS, CEA, The Australian Synchrotron, The Finkel Foundation, RMIT University, La Trobe University, Australasian Science Magazine, and The Melbourne Museum.

Mike Murray
Chairman, ANZAAS Council

The ANZAAS Debate - Genetically Enhanced Food: A billion dollar opportunity for Australia?

By Duncan ROUCH

The window has opened for Australia to make a move for using genetic technology to improve the health benefits of Foods, as both the USA and Europe are blind to the opportunity.

In Australia the Governments of Victoria and New South Wales have recently lifted the bans on genetically modified (GM) crops, at the end of February 2008 (1, 2, 4), while Queensland already allows GM crops. Tasmania is reviewing its ban on GM crops and will make a decision mid-way through next year, while the rest of states and territories retain bans. The use of GM crops is supported by the National Farmers Federation (5), while in contrast Bob Phelps, director of Genethics Network, and Scott Kinnear, of Biological Farmers of Australia continue long-held resistance to this notion (3). GM canola now accounts for 70 per cent of the global canola market (3). The Department of Primary Industries has been given permission to sow GM wheat crops near Horsham and Mildura, in western Victoria, to test the variety's tolerance to drought (7).

While it is commonly believed that the community are generally not in favour of GM crops and food, surveys by Biotechnology Australia have detailed a gradual increase in support for GM products over the last decade (6). At the most recent survey, last year, one in two participants were in favour of growing GM crops in their own state. In addition, a majority of those who did not agree to growing crops in their own state said they would change their opinion if the crops passed stringent regulations related to health and environmental qualities. Food made with small amounts of GM ingredients, or made from GM crops, or GM fruit and vegetables had about 50% acceptance among participants. With the support of the National Farmers Federation and the lifting of state government bans this is the time to apply genetic engineering of plants for enhanced health by foods.

The opportunity

It has been sometimes said that GM products, that would most likely sell, would be those that showed a direct consumer benefit and were seen as not harmful to the environment. What this benefit might be has never been publicly detailed. On the other hand, if we bring together the genetic molecular discipline with the nutritional discipline, we can see there are

clear prospects for improving the nutritional values of foods that are based on plant products.

In addition, at the international level, the world population is creaking toward 9.5 billion, and more efficient food production will be essential to feed all these people. Genetic technology clearly has a role to play in increasing the efficiency of food production. For this reason a number of African countries are interested in crop biotechnology, but need international partners.

Enhancing nutrition and health

How important is improving nutrition and health in the food industry? A major innovative and growing area in the global food industry is directed to enhancing nutrition and health, called functional foods. These foods are defined as being consumed as part of a usual diet but are demonstrated to have physiological benefits and/or reduce the risk of chronic disease beyond basic nutritional functions. Instead of using the term functional foods the Japanese coined the term FOSHU or foods for specific health use. In Japan FOSHU-approved foods has been the fastest growing category in not only the nutraceutical but all food categories. Since its inception in 1991, sales have been growing at an average of 25 percent annually. In 2003, the FOSHU market was \$4.1 billion with over 380 approved products (12). There are 7 major health benefit food categories within the Japanese



Golden Rice. Pictured here are normal rice (left) and genetically engineered golden rice (source: <http://www.goldenrice.org>). Golden rice is a variety of rice (*Oryza sativa*) produced through genetic engineering to biosynthesize beta-carotene, a precursor of pro-vitamin A in the edible parts of rice. It was developed as a fortified food to be used in areas where there is a shortage of dietary vitamin A. In 2005 a new variety called Golden Rice 2 was announced which produces up to 23 times more beta-carotene than the original variety of golden rice. Neither variety is currently available for human consumption, due to significant opposition from environmental and anti-globalization activists. This has occurred even though golden rice was developed as a humanitarian tool. This demonstrates the need to first gain acceptance of genetically enhanced foods in developed countries to promote global use of this technology.

FOSHU, which reflect particular health issues, for foods to;

- 1) Regulate gastrointestinal conditions,
- 2) Help regulate high cholesterol levels,
- 3) Help regulate high blood pressure,
- 4) Help regulate high blood glucose,
- 5) Improve mineral absorption,
- 6) Maintain healthy teeth and bones and
- 7) Reduce blood triglycerides.

The billion dollar opportunity?

In combining the genetic molecular discipline with the nutritional discipline, we can see there are major prospects for improving the nutritional values of foods that are based on plant products. For example, there is evidence that human beings evolved on a diet with a ratio of omega-6 to omega-3 essential fatty acids (EFA) of ~1, whereas in Western diets the ratio is 15/1 to 16.7/1. A high omega-6/omega-3 ratio, as is found in today's Western diets, promotes the pathogenesis of

many diseases, including cardiovascular disease, cancer, osteoporosis, and inflammatory and autoimmune diseases, whereas increased levels of omega-3 polyunsaturated fatty acids (PUFA) (a lower omega-6/omega-3 ratio), exert suppressive effects (8). While oily fish have a high level of omega-3 fatty acid, the fish market is severely limited and for this purpose cannot provide enough fish for the current world population never mind future increases. Therefore, the first company to engineer food products with a ratio of omega-6 to omega-3 essential fatty acids of ~1 or less is likely to storm food markets around the globe, in what is, at least, a billion dollar opportunity. Moreover to reach this market point would require substantial research and development, an opportunity for Australian researchers?

Why has GM technology not been substantially applied to enhance nutrition?

While genetic technology has been used to improve the nutritional properties of various crops, this has for the most part only been applied to staple crops for developing countries (10).

Given the clear opportunity for enhancing nutritional values in crops and foods for developed countries, why has no overseas company taken this on? The European community and the USA form the two major developed global regions which have access to the necessary molecular technology. The European community appears unable to respond to this opportunity as it is beset by anti-GM policies. In contrast, the USA is a leader in GM technology, but has a food production culture that tends to ignore nutritional values due to priorities on consistent food processing (9). This normally leads to processed foods, particularly fast foods, which are chiefly valued for consistent texture, look and taste, without attention to nutritional values. Consistent with this concept, the range of GM crops with modified fatty acid content, in the USA, are primarily grown for food processing (especially chemical functionality of fatty acid monomers) or industrial (non-food) purposes (11). Nevertheless, there is a nascent, though small, interest in genetically modifying foods to contain nutraceuticals (10).

Given the subdued approach overseas, here is the substantial opportunity for Australia to take the lead in developing GM technology to improve the nutritional and health values of foods.

Reinventing GM technology: Genetically Enhanced Foods

I suggest replacing the terms GM crops, with the term Genetically Enhanced Foods (GEF). This re-branding could help avoid the widely held current perception that the agriculture industry is not really interested in benefiting consumers or the environment. In contrast, this new approach would focus on enhancement of nutritional and health properties in crops and the foods produced from these.

There may be an initially small market for health benefiting Genetically Enhanced Foods. The value of this is, however,

more in changing people's perceptions, somewhat like a supermarket loss leader. Once people see some benefit to Genetically Enhanced Foods then the market will open up, and there would be reduced negative pressure on GM farm production. Mainstream commodities of Genetically Enhanced Foods would likely put anti-GM extremists back in the cold. Compare this to the current situation where extremists get large news coverage and tend to drive the debate, due to the perceived absence of positive industrial use of GM technology.

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News & Analysis

ANZAAS: Publicity and the Public Interest!

By Chris Evans*

THE Australia and New Zealand Association for the Advancement of Science exists to promote dialogue and

understanding between the public, science and government and to advance science and its uses for the good and progress of humanity.

As our website indicates, ANZAAS aims to:

- promote communication and interaction between scientists in different disciplines, as well as in the different dominions, states and territories;

- foster public interest in science and technology, and public awareness of the role of both in everyday life, and
- encourage the curiosity of children about the natural and man-made world around them.

Founded in 1888 and 120 years old next year, it was for much of its history the oldest national body of scientists in Australasia. But having given rise to the formation of many specialist scientific societies in both Australia and New Zealand - and not having held a congress since 1997 - this once august institution had by the turn of the 21st century looked like it had run its course. Just what happened to ANZAAS, which I saw in full and mighty flight at its Centenary Congress at the University of Sydney in 1988, is not known to me. (Not actually being a scientist, I could not find the association to join it until last year!)

What I do know is that without ANZAAS, Australia's diverse and seemingly fragmented scientific community would not have a representative national public interest advocacy organization to push its cause: the advancement of science. ANZAAS is needed to remind the general public that there is indeed a scientific community spread throughout both Australia and New Zealand and to demonstrate to those who govern our respective countries that they have a science constituency. After all, as anyone who has dealt with or just observed government well knows, politicians have long recognized that there is an arts constituency and that artists have most certainly and significantly benefited from this very plain and simple fact.

Unlike some in our association who believe that the days of great international ANZAAS congresses are behind us, I believe ANZAAS not only can but must be great again. ANZAAS is a natural publicity machine for science.

ANZAAS congresses are media events, platforms for the advancement of science on a grand scale. Not only have they effectively served as non-political demonstrations for political (re science policy and funding) purposes, they have inspired the young. Organized to run through major school or university vacation periods, in order to secure the availability of adequate venues, congresses also usually coincide with some of the slowest news days or weeks of the year. Nothing is open to rival them.

As parliament and the courts rarely sit through holiday periods, newspapers have to look elsewhere for stories to fill their pages. That is why - just 20 years ago - media coverage of those huge ANZAAS congresses ran page-after-page, for days on end.

Consequently, in the absence of such biennial major events, the public profile ANZAAS once enjoyed along with the esteem it certainly commanded both in the scientific and academic communities has wilted considerably. But it has not been extinguished.

The association - by continuing to hold meetings, publish this newsletter and maintain a presence on the Worldwide Web - has a heritage and, as 2007 ANZAAS Medalist Professor J. W. Boldeman reminded us recently, a living heritage at that.

Professor Boldeman, who as Professor of Synchrotron Science at the University of Queensland drafted the preliminary proposal for the \$207m Australian Synchrotron, expressed nothing less than the utmost delight that he had been admitted to a pantheon of past medalists including the likes of renowned New Zealand naturalist Dr Charles Fleming

and top Victorian medical researcher Professor Sir Gustav Nossal.

His acceptance of the ANZAAS Medal attracted local radio interviews on the ABC both in Sydney (where he lives) and in Wollongong (where he holds his current professorial chair).

It also served to inform listeners and the media that ANZAAS was active again. We can therefore hope that it will also generate impetus for membership growth in NSW.

Down at street level, the Victorian Division of ANZAAS has endeavoured to both promote itself and meet the association's stated aims in doing so by staging free but serious science talks for the general public in the Melbourne CBD once a month. These have so far attracted little or no media attention. However, we are giving consideration to the use of controversy, sex appeal and outright awe among other commercial-popular values to cultivate media interest in future.

I invite other divisions to examine the Victorian Division's press releases for themselves by visiting the ANZAAS Media Centre: www.anzaas.org.au/press. Our successes, failures and lessons learnt will be reported in future editions of ANZAAS Mercury.

** Chris Evans is a journalist and member of the ANZAAS Vic committee.*

THE ROLE OF ANZAAS

Comments by Ian Coopes, Victorian Member, on issues raised in "Murray's Matters", ANZAAS MERCURY, No 32 March 2007

The Scope of ANZAAS

Mike Murray raises the issue of to what extent ANZAAS should embrace the Social Sciences. As a major objective of ANZAAS is to foster communication between scientists and the broader community it would seem logical that strong links with the Social Sciences could help to facilitate such endeavours. Furthermore we should consider whether our efforts should extend beyond presenting the results of scientific studies to include advocating the application of the scientific method to all fields of human endeavour in which the objective and rational assessment of evidence is possible. This will mean that we have to become better at communicating how science works and the vital importance of applying reason to the great challenges facing humanity (and the tragic consequences of failing to do so).

One of the problems we face is that many scientists have a rather narrow outlook outside their specialized field, so that one of our tasks is to encourage scientists to become more engaged with the community.

Science and Religion

It is entirely appropriate that religion should be subject to scientific scrutiny as much as any other human activity. However we should be careful to avoid taking too aggressive and antagonistic an attitude to all religion. Our role is to discuss scientific issues with anyone who is willing to listen, and this includes at least some religious organizations. Not all religious belief necessarily rejects reasoned argument. It seems tactically foolish to unnecessarily antagonise the majority of humanity who profess some religious faith, as well as the significant number of practising scientists who also do so.

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 MUELLER MEDAL ADVISORY COMMITTEE

Professor Higham has taken on the mantle of inaugural Chairman of the Committee and Curtis Clark will undertake the task of Secretary. The Committee's task will be to propose and receive nominations for the Mueller Medal which is currently awarded biennially (but we will request Council to change this to annually). It will be expected that nominations will be accompanied by documentation including curriculum vitae and references from professional colleagues from within the relevant disciplines. A short biography of each member of the committee will be put on the website. The areas of expertise and associated members are;

Anthropology:

Professor Charles Higham, representing the Department of Anthropology, University of Otago
Contact: Professor Charles Higham,

Research Professor
Archaeology, Room 6S5
University of Otago
Dunedin
New Zealand
Tel: 64 3 479 8750
Email: charles.higham@stonebow.otago.ac.nz

Botany:

Professor David Cantrill, University of Melbourne, Royal Melbourne Botanic Gardens, and representing Botanic Gardens of Australia and New Zealand Incorporated (BEGANZ).

Contact: Professor David Cantrill
Chief Botanist and Director
Plant Sciences and Biodiversity
Private Bag 2000
Birdwood Avenue
South Yarra
Victoria 3141
Tel: (03) 9252 9301
Mob: 0438 543 271
Email: david.cantrill@rbg.vic.gov.au

Geology:

Mr. Fons VandenBerg, Geoscience Victoria, representing the Geological Society of Australia (Treasurer)

Contact: Mr Fons VandenBerg
Geological survey of Victoria
GeoScience of Victoria
55 Collins Street
Melbourne
Victoria 3001
Tel: (03) 9658 4519
Email: Fons.VandenBerg@dpi.vic.gov.au

Zoology:

Mr. Kevin Johnson, representing Australasian Regional Association of Zoological Parks and Aquaria (ARAZPA) (General Manager)

Contact: Mr. Kevin Johnson
General Manager
Australasian Regional Association of Zoological Parks and Aquaria
P.O. Box 20
Mosman
New South Wales 2088
Tel: (02) 9978 4773
Email: Kevin@arazpa.org.au

ANZAAS:

Curtis Clark, representing ANZAAS Council (Deputy Chairman)

Contact: Mr. Curtis Clark
20A Mort Street
Riverdale
Western Australia 6103
Tel: (08) 9362 3430
Email: crclark405@yahoo.com.au

Media Report

By Victor BIEN

New Opportunities to Communicate Science in a Changing Media Landscape



A very timely episode of the Media Report on ABC Radio National was broadcast just as I was scheduled to write this report of mine. It was a presentation of a session of a special panel discussion which was recorded a few days ago at the Walkley Foundation's 'Future of Journalism' conference.

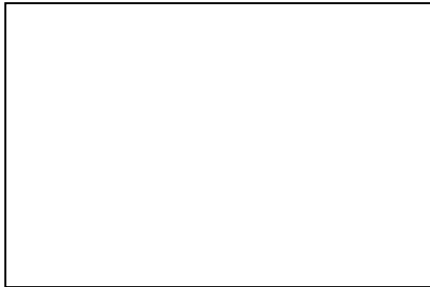
It was argued that the existence of "quality journalism" which is a prerequisite for the publication of science, amongst other important topics, is not necessarily undermined by the need for commercial funding in some way. Of course for quality journalism to happen you have to have people who are interested and able to write, talk or present quality material but significant people out there are so interested. So how does it happen that journalism doesn't always descend to crassness which we all have in the back of our minds when issues like commercialisation of the ABC is discussed?

One way is by "diversification". A couple of examples mentioned was that the Guardian and the Spectator magazines though run at substantial losses have not been compromised because the business structure supporting them get their funding from a classified automotive trading magazine.

Another way is to preserve proprietary ownership, owned by a proprietor or proprietary group who have an interest in influence and power as well as profit - people who wanted to

play a role in shaping society and the body politic. The speaker acknowledged that yes in a public company structure a CEO would be under constant pressure to deliver the greatest monetary return which would compromise editorial integrity.

Part of the discussion which I found quite enlightening was that the younger generation before they marry and settle down don't and have never read newspapers, or at least gone out of their way to buy and read them. In days gone by people of my generation read newspapers at our parent's home or in the university common room because the things were there on-hand. The speaker wryly noted that these days the younger generations are not getting married! There was discussion whether newspapers have a future. While there were doubts it was thought they would continue to exist in some form although it is difficult to hold firm views because the world was changing so fast.



Where the younger generation hang out are in internet "social networking" sites - Facebook, My Space and U-tube. A significant channel by which "traditional" media is drawing new audience was by blogging about media programs on these sites and thereby winning new audience.

This therefore prompted this thought: perhaps our younger members who spend their time on social networking sites could

write about or post links to media items about science as a means of communicating science?

Such an approach would open opportunities to communicate what Barry Brook calls "Good Science" (Australasian Science May 2008 p. 42). Since there is lots of bad science or bad scientific awareness or opinion out there if you do engage in this approach of science communications you'll need to brace yourself for robust debate on-line! But this would probably be a good thing for science since robust debates attracts eyeballs!

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The University of Adelaide, Adelaide, SA 5005

