



N E W S L E T T E R

Australasian Society for Immunology Incorporated

PP 341403100035

ISSN 1442-8725

December 2008

The ASI Women's Initiative

Barbara Fazekas de St Groth and Bernadette Saunders
Centenary Institute of Cancer Medicine and Cell Biology

At this year's ASI council meeting and AGM in Canberra, we are seeking to establish the ASI Women's Initiative. This article sets out why we believe that such an initiative is warranted, and what we hope to achieve by it.

The position of women within ASI and the broader scientific community is not a subject that receives much attention. Indeed, many of you may wonder what is the point of categorising ASI members and other scientists as "women" and "men", rather than as "immunologists" or "scientists". Surely, in this day and age, gender is irrelevant in the workplace. Unfortunately, the available data indicate that gender discrimination is alive and well in science today. Here we will present a summary of that data, as well as some of the research relevant to why gender discrimination persists in our workplaces. Much of the data comes from the USA and Europe, which keep comprehensive statistics relating to this issue, but we have included Australian figures where they are available.

The National Science Foundation of the USA publishes figures showing the number of Bachelor's and Doctoral degrees awarded to women and men in science and engineering since 1966. The number of males awarded degrees each year has remained fairly constant since the mid '70s, whereas the number of women has doubled. If no other factors supervened, one would expect that the number of women moving into more senior positions in science and engineering would be steadily increasing, and that is true for five or so years after the award of a doctorate. After that, women start to disappear. Those who stay on take an average of three years longer to reach full professorship and face

an increasingly large gap in salary – up to 25% less than male colleagues of equivalent rank by the age of 60. On every measure – academic rank, years taken to achieve that rank, salary – women consistently lag behind men. Nonetheless, the US does relatively well in employing women in top ranking university positions. In the US, 17% of these positions are occupied by women, whereas the corresponding figures for the UK and Germany are 7% and 4% respectively. France and Italy do better with 16% and 15%. Surprisingly, perhaps, to those of us in Australia who have heard that Sweden is a paradise in terms of social equality and security, only 10% of top university positions in Sweden are held by women. Overall in EU countries, approximately 50% of university undergraduates are female, but their representation drops progressively to 40% of PhD students, 30% of assistant professors, 20% of associate professors and about 10% of full professors.

What is the situation in Australia? Reliable figures for science-based disciplines are not available. For all Go8 university positions in 2002, women made up 45% of lecturers, 30% of senior lecturers, 17% of associate professors and 14% of full professors.



Barbara Fazekas de St Groth (left) and Bernadette Saunders

Do these figures reflect the situation in immunology? Once again, Australian figures are not available. The American Association of Immunologists (AAI) has run a Women's Committee for many years. They maintain a database of women in immunology and have collected figures on the representation of women in US Immunology Departments. The numbers vary from 30% at Stanford and Berkeley to 5% at the University of Minnesota, with Harvard at 17%. The number of female graduate students is between 45 and 60% at all institutions for which figures are available. By looking at the ASI membership list for 2005, we have estimated that PhD students and research assistants are 70% female, post-docs about 45%, and full professors 14%.

cont. p4

2009 Renewal Enclosed

See new ONLINE renewal
instructions p8

Contents

ASI Women's Initiative	1
Editorial	3
Honorary Secretary's News	3
President's Column	7
Data recordal and Corroboration	8
Visiting Speaker Program	9
Councillors' News	10
Travel Award Conference Reports	15
Student Page	22
Adelaide Immunology Retreat	23
Upcoming Lectures & Conferences	23
Animal Health Laboratory Standards	24

ASI Inc. COUNCIL

President

Professor Alan Baxter
CGC, James Cook University
Townsville Qld 4811
Ph: 61 7 4781 6265 Fax: 61 7 4781 6078
Email: Alan.Baxter@jcu.edu.au

Honorary Secretary

Dr Jose Villadangos
Walter & Eliza Hall Institute
1G Royal Parade
Parkville Vic 3050
Ph: 61 3 9345 2532 Fax: 61 3 9347 0852
Email: villadangos@wehi.edu.au

New South Wales

Dr Bernadette Saunders
Ph: 61 2 9565 6114 Fax: 61 2 9565 6101
Email: b.saunders@centenary.usyd.edu.au

Queensland

Dr Christopher Schmidt
Ph: 61 7 3362 0313 Fax: 61 7 3845 3510
Email: chriss@qimr.edu.au

Western Australia

Dr Delia Nelson
Ph: 61 8 9346 3510 Fax: 61 8 9346 2816
Email: Delia.Nelson@curtin.edu.au

New Zealand

Dr Joanna Kirman
Ph: 64 4 499 6914 Fax: 64 4 499 6915
Email: jkirman@malaghan.org.nz

FIMSA Councillor

Professor Nicholas King
Ph: 61 2 9351 4553 Fax: 61 2 9351 3429
Email: nickk@med.su.oz.au

Vice President

A/Prof Miles Davenport
Centre for Vascular Research
University of New South Wales
Kensington NSW 2052
Ph: 61 2 9385 2762 Fax: 61 2 9385 1389
Email: m.davenport@unsw.edu.au

Honorary Treasurer

Dr Chris Andoniou
Centre for Experimental Immunology
The Lions Eye Institute
2 Verdun Street
Nedlands WA 6009
Ph: 61 8 9381 0799 Fax: 61 8 9381 0700
Email: cadoniou@cylene.uwa.edu.au

State Councillors

Victoria & Tasmania

Dr Stephen Turner
Ph: 61 3 8344 8090 Fax: 61 3 9347 1540
Email: sjturn@unimelb.edu.au

South Australia & Northern Territory

Dr Claudine Bonder
Ph: 61 8 8222 3504 Fax: 61 8 8232 4092
Email: claudine.bonder@imvs.sa.gov.au

Australian Capital Territory

Dr Gerard Hoyne
Ph: 61 2 6125 2935 Fax: 61 2 6125 0413
Email: gerard.hoyne@anu.edu.au

Contact for Tasmania

Dr Greg Woods
Tel: 61 3 6226 4830 Fax: 61 3 6226 4833
Email: g.m.woods@utas.edu.au

Non-Voting Councillors:

Newsletter Editor

A/Prof Margaret Baird
Ph: 64 3 479 7712; Fax: 64 3 479 8540
Email: margaret.baird@stonebow.otago.ac.nz

Journal Editor

Professor Chris Parish
Ph: 61 2 6125 2604 Fax: 61 2 6125 2595
Email: christopher.parish@anu.edu.au

Visiting Speakers Co-ordinator

A/Prof J. Alejandro Lopez
Queensland Institute of Medical Research
CBCRC/I, Post Office
Royal Brisbane Hospital Qld 4029
Ph: 61 7 3845 3794 Fax: 61 7 3845 3510
Email: alejL@qimr.edu.au

Council Member of IUIS

Professor Chris Parish
Ph: 61 2 6125 2604 Fax: 61 2 6125 2595
Email: christopher.parish@anu.edu.au

Honorary Archivist & Webmaster:

Dr Judith Greer
Ph: 61 7 3346 6018
Email: j.greer@uq.edu.au

Administrative Correspondence

Ms Judi Anderson
ASI Inc. Secretariat
PO Box 7108
Upper Ferntree Gully Vic 3156
Ph: 61 3 9756 0128 Fax: 61 3 9753 6372
Email: asi@21century.com.au

Website

The ASI web site (www.immunology.org.au) has been fully remodelled and updated. New services include:

- Downloadable forms for ASI awards,
- Positions vacant pages,
- Jobs wanted pages,
- Upcoming conferences listings,

as well as a plethora of links to sites of immunological interest at home and abroad. If you'd like your lab home pages linked to the site, would like to advertise a job or conference, or have a favourite immunology-related site that doesn't currently appear on the ASI site, please email Judy Greer at j.greer@uq.edu.au

Email bulletin board

To subscribe to the ASI bulletin board, send an email to majordomo@explode.unsw.edu.au with the message: subscribe anz-imm.

EDITORIAL



Good heavens – another year is almost over and all those 2008 resolutions are rapidly dissolving. But ASI marches on from strength to strength. Our retiring President's column is a testament to the impressive growth of the Society. The accompanying increase in the financial bottom line, in marked contrast to the gloom on international money markets, ensures that immunology can continue to raise its profile in Australasia and beyond. Alan is to be heartily thanked for his work for the Society. His columns have been provocative and entertaining and, hopefully, some of the messages delivered from these have reached the ears of those who can bring about that very current thing: change. Jose also retires – his regular contributions have always been most informative. We wish him every success in the bid to host the ICI2016.

To encourage debate, this Newsletter leads with an article by Barbara Fazekas de St Groth and Bernadette Saunders, raising an uncomfortable issue for some – gender inequities in science. Their aim, to establish an ASI Women's Initiative, is certainly worthy of our support. We would welcome the opinions of members of the Society in the form of articles or letters so that this issue can be fairly and openly aired.

The second article in what is becoming a regular series from Freehills Patent and Trade Mark Attorneys, is a salutary reminder about the need for careful record-keeping to protect the ownership of data generated within our laboratories. The formality may seem tedious but, clearly, at the end of the day, necessary.

cont. p9

HONORARY SECRETARY'S NEWS

Farewell, and see you around!

This is my last contribution to the Newsletter as Honorary Secretary of the ASI. I have held this post for 3½ years, working with the President, Vice-President and Treasurer, together with the members of the Council, to improve the organization of established activities and implement new initiatives sponsored by the ASI. The number of Society members has continued to grow and, with it, our financial resources. This has allowed the ASI to dedicate more funds for International Travel Awards and student bursaries, to provide a stronger financial base for the organization of the annual meeting, and to reach further to the public with initiatives such as the "Day of Immunology". I wish to thank the two Presidents I have worked with, Phil Hodgkin and Alan Baxter, and the Treasurer, Chris Andoniou, for their dedication and guidance. I also thank the former Secretary, Geeta Chaudhri, for spending time well beyond her tenure to help me get started. Finally, I welcome Su Heinzl as the new Secretary for the period 2009-2011. Su has been an active participant in the Society since she came to Australia in 2000. She was councillor for South Australia and co-chaired the organization of the annual meeting in Adelaide in 2004. I am sure she will do an excellent job.

My association with the ASI will remain strong. Over the past year I have chaired the committee that is preparing the presentation of the ASI bid to organise the International Congress of Immunology in 2016. This year the Council decided to extend my appointment until 2010, when our bid will be presented to the International Union of Immunological Societies during the International Congress in Kobe, Japan. I thank the Council for their confidence and extend now an invitation to the whole membership to help with this exciting initiative.

So, goodbye as Secretary, but see you around as an ASI member ... oh, and please, do not forget to renew your membership!

Student Bursaries

Congratulations to the following student members who have been awarded bursaries:

Roya Arabi
Dorit Becher
Julie Brazzatti

Dora Chan
Tania Cukalac
Alice Denton
Lauren Hatton
Susan Haylock-Jacobs
Leia Hazlewood
Kim Lau
Kendle Maslowski
Helen McGuire
Azid Rahimpour
Heidi Schilter
Jessica Stolp
Ara Tokar
Evelyn Tsantikos
Marian Turner
Sophie Valkenburg
Leia Wren
Dimitra Zotos

Changes to Council

Vice-President Miles Davenport becomes President for 2009-2010
President Alan Baxter becomes the Past-President for 2009

The following members will leave their positions in the Council at the end of the year:

Honorary Secretary – Jose Villadangos
Queensland Councillor – Chris Schmidt
New South Wales Councillor – Bernadette Saunders

The following members have been elected to Council:

Honorary Secretary – Susanne Heinzl
Queensland Councillor – Heiner Korner
New South Wales Councillor – Stuart Tangye.

Jose Villadangos

ASI Secretariat
PO Box 7108,
Upper Ferntree Gully, Vic. 3156
Australia
Tel: +61 3 9756 0128
Fax: +61 3 9753 6372
Email: asi@21century.com.au
Office hours:
8.30am – 4.30pm

ASI Women's Initiative, cont.

We tend to see a similar dearth of women invitees at ASI meetings. We have averaged 19% female plenary speakers over the past 15 years, but some cities stand out from the mean, and the number of female plenary speakers over the last four years has ranged from 0 to 40%. In comparison, at US Keystone meetings in the field of immunology, around 30% of plenary speakers are female.

One of the factors often blamed for women's under-representation in the higher echelons of science is that there is a pipeline from graduation to retirement, and it takes many years for increased representation in the junior ranks to flow through to the more senior levels. But the gross under-representation of women in senior positions has been quite stable for the past 10-20 years, despite the majority of junior immunologists being female.

What are the factors that prevent women from reaching senior positions? Clearly the responsibilities of childbearing and childcare are a major factor, as they are in the rest of the workforce. In science, women with children advance more slowly than those without, whereas the opposite is true for men. But women without children still advance more slowly than men without children.

There is a considerable body of literature in the field of social psychology demonstrating that society treats men and women differently. These patterns of human behaviour are referred to as "Gender Schemas", and we are indebted to the website of Virginia Valian at Hunter College NY(1) for much of the discussion that follows.

Gender schemas describe how the differences in behaviour between men and women are self-perpetuating and self-reinforcing. They influence negotiations about task sharing and entitlements, and play a large but generally unconscious part in determining how men and women are regarded by the colleagues in the workplace. These schemas operate independent of good intentions and, remarkably, are held in common between men and women. Thus both males and females prefer to see men in leadership roles. Porter and Geis published a study

in 1981 (2) in which college students were shown slides displaying five people seated around a table and asked to identify the leader. In same sex groups, the person at the head of the table was always identified as the leader. In mixed sex groups, the man at the head of the table was always identified as the leader, but if a woman was at the head, a man seated elsewhere was labelled the leader about 50% of the time. The gender of the observer made no difference – men and women made the same judgements. In another study published in 1990 (3), two trained actors followed a script in which one adopted a "friendly but assertive" leadership role. The leader could be either male or female. Naive observers, both male and female, gave more positive than negative facial expressions to men playing the leadership role, and the reverse was true when women were playing the role.

Gender schemas start to operate early. In studies of perception of maths ability in American junior high school students, taken at an age when there is no substantial gender difference in high school maths performance tests, both boys and girls agreed that boys' skills are higher. Self-evaluation was lower relative to performance for girls, whereas the reverse was true for boys. In addition, perceptions can influence the girls' performance. When females taking an undergraduate maths test were told before the test that females typically score lower than males, they scored lower. When they were told that there are no gender differences, they

scored the same as males (4).

Do these perceptions carry over into science, where ranking of scientific articles and CVs should be performed solely on the basis of academic excellence? Unfortunately, they do. In one US study, first done in 1968 and then replicated in 1983, college students were asked to rate identical scientific articles according to specific criteria. The authors' names attached to the articles were clearly male or female, but were reversed for each group of raters: what one group thought had been written by a male, the second group thought had been written by a female, and vice versa. Articles supposedly written by women were consistently ranked lower than when the very same articles were thought to have been written by a male. In a similar study, department chairs were asked to make hypothetical hiring decisions and to assign faculty rank on the basis of CVs. For CVs with male names, chairs recommended the rank of associate professor. However, the identical CV with a female name merited only the rank of assistant professor.

In 1997, these gender schemas came to the attention of readers of the journal *Nature* when it published a study by Christine Wenneras and Agnes Wold from Goteborg University in Sweden (5). The authors of the study found clear gender bias in the way in which postdoctoral research awards were made by the Swedish Medical Research Council. Women had to be about 2.2 times more productive than male counterparts



"I see by your résumé that you're a woman."

to be as successful in securing financial support. How could a selection committee that prided itself on fairness make such an obvious mistake? The committee decisions were based not only on published work, but took into account factors that already discriminated against women – namely the recommendation of head of department, and the institution in which applicants were working. More recently, an analysis of ARC grant funding in Australia has shown that men consistently have a higher success rate than women and that difference is already apparent for applicants under age 30 (6).

One of the studies highlighting gender differences in the way in which scientists do their work was undertaken by Gerald Holton, a professor of physics from Harvard. “Project Access” (7) studied a group of 700 male and female scientists, who had all shown great promise early in their careers. By selecting an elite group, the investigators hoped to highlight gender differences that would be even greater in “average” scientists. Over the course of the study, 88% of the men attained tenure, but only 40% of the women did. A more detailed study of biologists involved a review the dossiers of biologists selected from the Project Access pool. The reviewers from two prestigious research universities were told to assign quality ratings on the basis of the curriculum vitae, the bibliographies and reprints of six articles or chapters that each individual thought represented his or her best work. They used a scale from 1 to a top grade of 5, similar to what many granting agencies use in assessing the merit of proposals. The average quality rating given by the evaluators was 3.67 for women versus 3.27 for men. Moreover, in the annual Institute for Scientific Information (ISI) Science Journal Citation Reports, the women’s articles had received substantially more citations than the men’s – 24.4/article versus 14.4/article. They did, however, publish about 10% fewer articles than men.

The women being studied reported considering their own work performance as average almost twice as often as did the men (35% versus 18%). Men, on the other hand, overwhelmingly considered themselves as above average (70% versus the women at 32%). Twice as many women as men believed there were differences in the way men and women conduct their work as scientists. The same ratio held true when women were asked whether gender affected their choice of a research subject or their way of thinking

in science. And when the interviewees were asked whether there is a gender difference with respect to methods adopted in pursuit of a scientific project, women answered affirmatively more than three times as often as men did. Among the men and women interviewed, a very frequent observation in both cases was, not surprisingly, that male scientists, on the road to their career success, are more aggressive, combative, and self-promoting. The women were more likely than the men to emphasize that one of the best things about scientific research was the intellectually stimulating process.

In order to pursue science without the rough-and-tumble competition of life at the frontier, women were more likely to choose a niche problem or subfield that was perceived as a “hot” topic by men. As Marie Curie said when she was asked why she decided to work on what was later called radioactivity: “I chose this field because there was no bibliography.”

Is there any reason why we should try to change how society views the worth of male and female scientists? Apart from questions of social equity and fairness, training large numbers of women to pursue careers in science and then making it difficult for them to progress within those careers is wasteful of scarce resources. And our supply of talented scientists is not unlimited. In the UK, where science and industry are managed principally by white, male Anglo-Saxons, only 20% of the workforce is white, male, able-bodied and under 45. This fact is not lost on women in UK universities, 50% of whom feel disadvantaged in terms of salary and promotions. In contrast, only 15% of their male colleagues recognize this as a problem for their female colleagues (8).

So far, the only examples in which women’s representation at management level has changed dramatically have come from commercial companies who are in a position to actively manage their workforce. One example is Motorola, which made a corporate decision to increase the percentage of women in senior positions within the company. There were complaints from men in the beginning, but after the percentage of women reached 40%, even the men noticed that the workplace was much more pleasant and productive – less competitive and more focused on getting the job done.

Things are moving in the US, as exemplified

by behaviour of the NIH. In 2004, the NIH instituted a new award – the NIH Director’s Pioneer Award for novel biomedical research strategies. When all 9 awards went to men, there was a public outcry (9). The sole female member of the selection committee protested that they had made their choice in an unbiased way, but that few applications were received from women. The next year, responsibility for the award was transferred from the NIH Director’s office to the National Institute of General Medical Sciences, which has more experience with grants and was prepared to redesign the Program. Female referees were increased to 40%, up from 5%. Instead of requiring a nomination, which automatically biases against women, applicants were allowed to nominate themselves. The application form was reworded to emphasize that women and minorities were especially encouraged to apply, and that the award was available to early- and mid-career scientists. As a result 26% of applicants and finalists were female in 2005 (10) and the percentage has continued to rise to a level where it is now equivalent to the percentage of women in eligible research positions.

One of the interesting stories to come out of the Pioneer award controversy came from a Stanford neurobiologist, Ben Barres who has a unique perspective on how male and female scientists are perceived by their peers. He said in “Personal Experiences: Does gender matter?” (*Nature* 442): “As a transgendered person, no one understands more deeply than I do that there are innate differences between men and women. I suspect that my transgendered identity was caused by fetal exposure to high doses of a testosterone-like drug. But there is no evidence that sexually dimorphic brain wiring is at all relevant to the abilities needed to be successful in a chosen academic career. I underwent intensive cognitive testing before and after starting testosterone treatment about 10 years ago. This showed that my spatial abilities have increased as a consequence of taking testosterone. Alas, it has been to no avail; I still get lost all the time when driving (although I am no longer willing to ask for directions). There was one innate difference that I was surprised to learn is apparently under direct control of testosterone in adults

– the ability to cry easily, which I largely lost upon starting hormone treatment. Likewise, male-to-female transgendered individuals gain the ability to cry more readily. By far, the main difference that I have noticed is that people who don't know I am transgendered treat me with much more respect: I can even complete a whole sentence without being interrupted by a man." But for female scientists in general, it will be important to raise the awareness of both male and female peers. Some of the areas in which the undervaluing of women's ability has negative effects on their careers are in appointment, promotion, awarding of grants, invitations to present at meetings and publication. In the first four areas at least, there is an opportunity to do something at the local level. As mentioned above, the AAI and many other US discipline-based societies have women's committees that provide publicly available lists of women scientists and their areas of expertise. In 1993, I chaired the organising committee for a joint meeting of our own society, ASI, with the US-based Society of Leukocyte Biology. The provisional program came back from my US counterpart with a comment that the percentage of female plenary speakers was far too low – couldn't we find any more women to invite? This was a concept that was so far off the radar here in Australia that it had not even been mentioned, let alone taken in to account, in our own meetings about the program.

We are therefore asking for your support to set up a formal organization, under the auspices of ASI, to promote gender equity within ASI and the broader immunology community in Australia and New Zealand. Its aims would be to:

- maintain a database of the interests, expertise and career advancement of female ASI members and to liaise with the AAI women's committee and other relevant national and international bodies;
- provide ASI conference organisers with suggestions for appropriate female invitees, and to monitor the representation of women among invitees;
- raise awareness of gender issues related to career progression within recent graduates;
- nominate suitable candidates for prizes and awards within Australia and internationally;
- lobby granting bodies to produce realistic guidelines regarding how career interruptions will be considered by panels;
- monitor the composition of grant review panels and editorial boards with regard to gender, and make suggestions for suitable candidates.

We would like to hear from anyone who is interested in assisting with this initiative.

Barbara Fazekas de St. Groth, email: b.fazekas@centenary.org.au

Bernadette Saunders, email: b.saunders@centenary.org.au

Parts of this article were published previously in the *Wisenet* journal in 2006.

Contributions sought for the ASI online immunology quiz

As part of the recent World Day of Immunology, we have developed an online immunology quiz (see <http://www.immunology.org.au/immquiz1.html>) on the ASI website. This quiz is targeted at the general public, but it would be good to add a few more questions (especially some with an Australian flavour), and maybe even add an "Advanced Level", with questions that undergrad students might find useful for revising for exams. All that's needed now are the questions and answers.

If you would like to contribute any multiple choice questions for either the general quiz or an advanced version, please send them to Judith Greer at j.greer@uq.edu.au.

References:

1. <http://www.hunter.cuny.edu/genderequity/> & <http://www.hunter.cuny.edu/gendertutorial/>
2. Porter, N. and F.L. Geis.. 1981. Women and Nonverbal Leadership Cues: When Seeing is not Believing. In *Gender and Nonverbal Behavior*, edited by Clara Mayo and Nancy Henley, 45–63. New York: Springer Verlag.
3. Butler, D. and F.L. Geis. 1990. Nonverbal affect responses to male and female leaders: Implications for leadership evaluations. *Journal of Personality and Social Psychology* 58:48–59.
4. Spencer, S.J. and C.M. Steele. 1994. Under suspicion of inability: Stereotype vulnerability and women's math performance. Unpublished manuscript. SUNY Buffalo and Stanford University.
5. Wenneras, C., and A. Wold. 1997. Nepotism and sexism in peer-review. *Nature* 387:341–343.
6. Symonds, M.R., N.J. Gemmell, T.L. Braisher, K.L. Gorringer, and M.A. Elgar. 2006. Gender differences in publication output: towards an unbiased metric of research performance. *PLoS ONE* 1:e127 and www.arc.gov.au/ncgp/dp/dp08_selrpt.htm#early
7. Sonnert, G. and G. Holton. 1995. *Gender differences in science careers : The Project access study*. Rutgers Univ. Press.
8. King, J. 2005. Correspondence to *Science* 308:601
9. Mervis, J. 2004. National Institutes of Health: Male Sweep of New Award Raises Questions of Bias. *Science* 306:595
10. Novak, K. 2005. Complaints of gender bias compel NIH to revise awards scheme. *Nature Medicine* 11:912
11. Barres, B.A. 2006. Does gender matter? *Nature* 442:133–136.

Submission of photos with articles

When submitting articles, reports, etc. to the newsletter, please do not embed the photos in the Word article, but always send as separate jpeg files - preferably around 300–400kb. Embedded photos/graphics cannot be imported into the desktop publishing program nor edited if required and delays occur in requesting photographs to be re-sent.

Thank you for your co-operation.

PRESIDENT'S COLUMN

So Long, and Thanks for all the Fish

Dear Reader, this column constitutes the eighth and final column of my presidency. Over the last two years, we have not seen a revolutionary change in the Society, but we have seen change. The numbers of members has increased substantially – by about 7% per year – and has now passed (or will very soon pass) the 1,000 mark. Associated with this has been an increase in attendance to the Annual Scientific Meeting. Most years, about 50% of members attend, and for the last few – including this year – about 500 people have registered. The consequence of this is that the Society's meeting is financially secure. More international speakers can be attracted; national speakers treated better; improved venues booked. The consequence of this is increased sponsorship – again providing a better meeting.

Another critical development for the Society has been the migration of our journal, *Immunology and Cell Biology*, to the Nature Publishing Group. This has resulted in improved subscriber service, higher citation rates, increased submissions and a higher standard of papers accepted, all of which have increased subscriptions and financial returns.

These three factors – larger membership, higher meeting registrations and increased profitability of the journal – have provided the Society with a sound financial base on which to explore improvements in its service provision. The major changes have been increased support to regional branches, increased number and value of travel stipends, the introduction of small meeting support and the Society's involvement in the World Immunology Day. The funds invested in just the first two of these are equal to the total value of membership subscriptions collected – each. This has resulted in extraordinary outcomes for Society members. This year, for the first time, every eligible student who applied for a travel bursary to attend the Annual Scientific Meeting was awarded a stipend. This is an extraordinary achievement, as far as I know, unmatched by any equivalent Society in any other discipline in the region.

It would be ridiculous for me to claim that the exuberant flowering of the Society during my presidency was the result of my efforts.

Most of the improvements were initiated during the presidencies of Phil Hodgkin and Chris Parish. The transformation of the journal was almost entirely the work of Chris Parish; the outstanding programs offered at the Annual Scientific Meetings were the products of the individual organising committees each year; ASI's role in the World Day of Immunology has been overseen by Claudine Bonder for the last few years.

The decisions made by Council were collective decisions, and we should thank all councillors over the last few years – particularly those who worked so hard to improve services in their regions and to develop their own, idiosyncratically charming regional branch meetings. There are a couple of people I'd like to reserve my most heartfelt thanks. One is the Honorary Secretary for the whole of my presidency, José Villadangos. José is a tireless, enthusiastic, driven, excitable and creative committee member. When my own energy has flagged, he has picked up the issue at hand, the rest of the agenda, me and the whole Society and carried us all to a great outcome. He always has an idea how something can be achieved and is prepared to do it himself if necessary.

The other two people I'd like particularly to thank are the treasurers, Norbert Kienzel and Chris Andoniou. Taking on the financial concerns of a Society with a turnover of over a million dollars changes a man. They almost became caricatures of accountants – moderate, meek and meticulous – which for Norbert must have been a terrible trial. But unlike the bureaucratic nay-sayers we all have to deal with in everyday life, these guys were prepared to take a risk with the budget – to spend more than might have seemed prudent; to support new ventures when perhaps others would balk. And their judgement has been borne out. Every attempt we made to spend more money saw greater financial returns. I believe the Society is operating at the top of its game. It is a great institution providing an outstanding service. Make the most of it!



On a personal note, I'd like to add that the Society and the presidency have brought a great deal of pleasure to me. While I have struggled with personal and health issues, the delight of seeing the Society bloom, watching the journal evolve, meeting the "bright young things" (a Nossalism) at Regional Branch Meetings, and my almost daily interactions with the Council, and particularly the executive, have been a source of great consolation. I can only encourage others to contribute to the Society in any way they can. The returns far exceed the investment.

Thank you for your support and all the best in your work.

Alan G Baxter

**Contributions
sought for the
ASI Newsletter**

**You could win
\$100 !!**

**Deadline for the
next issue :
1st February
2009**

**Please email your contributions
to the Secretariat by the
above date.
asi@21century.com.au**

Data recordal and corroboration

[Editorial note: ‘recordal’ is a specialized term used in IP law. It refers to the ‘**act of giving legal status to a document by making it an official record**’. *Merriam-Webster’s Dictionary of Law*; *Dictionary.com Unabridged (v 1.1)*]

If you’re doing NHMRC or ARC funded research, you’ll know that Part 2 of the *Australian Code For The Responsible Conduct Of Research* requires you and your institution to implement policies “that address the ownership of research materials and data, their storage, their retention beyond the end of the project ...”. The focus is very much on retention and the Code explains that “*The central aim is that sufficient materials and data are retained to justify the outcomes of the research and to defend them if they are challenged*”.

This is all well and good. But from the perspective of one standing on the outside, what would seem to benefit most is policy requiring Australian institutions to implement procedure for *effective* recordal of data. That is, a recordal that *establishes* what data was generated, by whom and when. Surprisingly the Code is virtually silent on this and yet time and again Australian researchers are exposed to academic and commercial disputes over the generation and ownership of independently or collaboratively –derived data.

“*A pass in laboratory notebook writing 101 is all that is needed*” I hear you say?

To a point perhaps. It is true that a person who has performed and recorded an experiment (an **Author**) in a form that discusses why an experiment has been done, when it was done, what was found and by whom, has gone some way to effective recordal. But even this may not be enough.

This is because in many jurisdictions – notably the US – these sorts of disclosures are at risk of being considered as nothing more than unsubstantiated testimony. Consequently this alone may not be sufficient to establish ownership of an invention or related experimental data.

Generally, what is required is something that can be used to corroborate (i) the Author’s own observations and interpretations in his laboratory notebook; and (ii) when these observations and interpretations were made.

In many jurisdictions, corroboration of the former requires a **Signatory** (an individual other than the Author, or where the Author is an inventor, other than a co-inventor) to have signed the pages of the Author’s laboratory notebook in which the Author’s own observations and interpretations of his experiment have been made. Generally, at the time of signing the Signatory has not only understood the text in these pages; he has also observed the Author performing what is in the text.

In an ideal situation, the experiment is performed by another person – such as a research assistant – under the direction of the Author. The Signatory, having observed the experiment and having understood the text, then signs the relevant notebook pages.

In the above circumstances the Signatory may be competent to testify as to what he learned from reading the text.

Corroboration of the latter – i.e. when the observations and interpretations were made – may not necessarily require the Signatory to have understood the text in the notebook pages, nor to have observed the experiment being performed. Generally in these circumstances the Signatory can attest only to the fact that the pages that he has signed and the text in them existed as of the date he signed them. Someone else may have to testify as to what the text means unless one can take the position that once the existence of the page has been established the document speaks for itself.

In some circumstances corroboration may be effected by circumstantial evidence, by pointing to reagent purchases, invoices from outside analytical laboratories, photographs, reports from outside testing laboratories, etc.

Finally it must be noted that possession of evidence effecting corroboration whether in the form of direct or circumstantial evidence, does not of itself entitle one to ownership of an invention or related experimental data.

For example, the evidence might point to possession of something unrelated to the disputed property. However, the point is that without this evidence, it becomes much more difficult, if not impossible to establish rights to anything at all.

So to sum up, what does this mean for ASI researchers? Less time for research and more time wasted on admin? From one perspective – maybe. But from another, if you don’t seek some sort of evidence to effect corroboration of what you have done and when you did it, isn’t there an argument that the admin time you will have invested in recording your experiment in your notebook will be wasted anyway?

Tom Gumley PhD

Partner

Freehills Patent & Trade Marks Attorneys

tom.gumley@freehills.com

0417 426 407

Renew your ASI Membership online

If you would like to pay online, ASI membership renewals can now be made through PayPal.

To renew in this way, click on the “Join ASI” tab on the ASI website (www.immunology.org.au), and then select the appropriate level of membership (ordinary, student, retired or sustaining) from the “Categories of membership” menu item. Click on the PayPal symbol next to the type of membership renewal that you require, which takes you to the PayPal website. If you have a PayPal account, you can log on and pay through PayPal. Alternatively, you can pay through PayPal using Visa or Mastercard.

Please note that you should still return the update questionnaire included with this newsletter to the Secretariat to confirm or change any of your details.

The ASI Visiting Speaker Program

Invited Speakers in November, 2008

Hans-Georg Rammensee

University of Tübingen, Germany

With the support from the Australian Centre for Vaccine Development (ACVD, Brisbane) we have now secured this visit.



Itinerary

Brisbane, 19–21
Wellington, 24
Melbourne, 25, 26
Adelaide, 27



Co-ordinated by J. Alejandro López (alejL@qimr.edu.au).

Pierre van der Bruggen

Ludwig Institute for Cancer Research Brussels, Belgium

The group led by Pierre van der Bruggen has defined antigenic peptides encoded by genes such as those of the MAGE family. These peptides have been used in therapeutic vaccination trials of cancer patients and have served as tools for a reliable monitoring of the immune response of vaccinated patients. Efforts have been devoted to set up assays that accurately monitor CD4+ T cell responses to cancer vaccines. For patients vaccinated with a protein, the group has validated a quantitative approach to isolate anti-vaccine T cells directed at all possible HLA-peptide combinations that could be targeted by the response. The group is currently involved in the study of functional defects of T cells. The observation that human CTL clones lose their specific cytolytic activity and cytokine production under certain stimulation conditions, and simultaneously lose their labeling by an HLA-peptide tetramer, suggested the existence of a new type of functional defect of CTL. Restoration of function follows the reassociation of the T cell receptor with CD8.

1. Graham SP, Pelle R, Honda Y, Mwangi DM, Tonukari NJ, Yamage M, Glew EJ, de Villiers EP, Shah T, Bishop R, Abuya E, Awino E, Gachanja J, Luyai AE, Mbwika F, Muthiani AM, Ndegwa DM, Njehira M, Nyanjui JK, Onono FO, Osaso J, Saya RM, Wildmann C, Fraser CM, Maudlin I, Gardner MJ, Morzaria SP, Loosmore S, Gilbert SC, Audonnet JC, van der Bruggen P, Nene V, Taracha EL. *Theileria parva* candidate vaccine antigens recognized by immune bovine cytotoxic T lymphocytes. **Proc Natl Acad Sci U S A** 2006;103:3286-91.
2. Boon, T., Coulie, P.G., Van den Eynde, B.J., and van der, B.P., *Human T cell responses against melanoma*, *Annu. Rev Immunol.* 2006, *24*:175-208., 175-208.
3. Carrasco, J., Godelaine, D., Van Pel, A., Boon, T., and van der, B.P., *CD45RA on human CD8 T cells is sensitive to the time elapsed since the last antigenic stimulation*, **Blood.** 2006, *108*, 2897-2905.
4. Demotte, N., Stroobant, V., Courtoy, P.J., Van Der, S.P., Colau, D., Luescher, I.F., Hivroz, C., Nicaise, J., Squifflet, J.L., Mourad, M., Godelaine, D., Boon, T., and van der, B.P., *Restoring the association of the T cell receptor with CD8 reverses anergy in human tumor-infiltrating lymphocytes*, 2008, **Immunity.** 28, 414-424.

Itinerary

Wellington, 6
Brisbane, 17–21
Perth, 27, 28



Co-ordinated by Chris Schmidt (chrisS@qimr.edu.au)

For further details, please visit our website for details (<http://www.immunology.org.au/vsp.html>).

Editorial, cont.

Postgraduate student conference reports comprise a healthy component of this Newsletter. It is a delight to read of the diverse range of meetings ASI has supported these students to attend. These often quite detailed articles provide thumbnail sketches of current research in areas sometimes outside the focus of many of us. In fact, the wit and style of one of these as won the author the coveted \$100 prize for the best article in the ASI Newsletter. Congratulations to John Miles who has penned a charming mix of science, culture – and humor.

Enjoy the festive season.

Margaret Baird

Congratulations
to
John Miles
from the
**Queensland Institute of
Medical Research**
who has won the
**\$100 prize for
Best Newsletter Article.**

Read John's winning article on his trip to FIMSA 2008, starting on page 21 of this issue.

Sustaining Membership

ASI Inc acknowledges the support of the following sustaining members:

- Freehills Patent & Trade Mark Attorneys
- Jomar Diagnostics

ASI Councillors' News

N.Z. News

NZ ASI Meeting 2009

Planning for the 2009 NZ ASI Branch Meeting is well underway, and it will be held in Wellington (June 4-5 ... note it in your diaries!), supported by the University of Auckland, University of Otago and the Malaghan Institute. We have an exciting line-up of invited speakers: Treg expert, Ethan Shevach, from the National Institutes of Health, USA is our Keynote Speaker; from Australia we have Wolfgang Weininger of the Centenary Institute, a specialist in visualising immune responses and cellular trafficking as well as viral immunologist Mariapia Degli-Esposti from the Lions Eye Institute in Western Australia; and ex-pat Kiwi immunologists Ben Marsland and Nicola Harris will be returning from Switzerland to inform us about their research on TLR signalling and mucosal immunity, respectively.

Registration and abstract submission will open on March 2009 – as usual there will be a student speaking competition with the coveted “Buck” travel award going to the best presenter (as well as great prizes for 2nd and 3rd places). Please visit <http://www.malaghan.org.nz/newsevents/NZASImeeting/> for more meeting information.

Visiting Speakers, 2008

Prof Steve Reiner had Wellington as his first stop on his Australasian tour, and took the time to meet with local scientists and those who had travelled from as far as Dunedin to meet him. Steve gave a very enjoyable and informative talk to a very mixed audience – introducing immunology undergraduates to asymmetric cell division and how T cells make lineage decisions while still keeping the interest of more senior researchers.

We are eagerly waiting the remaining two ASI-sponsored visitors who are coming to Wellington in November: Prof Pierre van der Bruggen of the Ludwig Institute in Belgium and Prof Hans-Georg Rammensee of the University of Tübingen, Germany.

International Day of Immunology, April 19th 2009

The Malaghan Institute is planning to host a public lecture in Wellington followed by refreshments with displays to celebrate the International Day of Immunology. It would be great to have other centres join in to help promote public awareness so please email: immunet@malaghan.org.nz for more information about funding support and ideas.

*Jo Kirman
Councillor*

S.A./N.T. News

We have had a very exciting past few months with the ASI Sponsored Speaker Prof Wayne Yokoyama coming into Adelaide and spending a day at various institutes throughout the state sharing his knowledge on NK cells and pox viruses. Wayne and his wife Lynn were an absolute delight to meet and Wayne's breadth of knowledge in the immune regulation of NK cells and viruses was a great source to tap into. Wayne and Lynn also spent some time on Kangaroo Island and tried a drop or two of our local wines which they fully appreciated! Thank you to Guna and Alejandro for arranging Wayne's visit throughout Australia. We are now looking forward to our next outstanding international guest, Prof Hans-Georg Rammensee from the University of Tübingen, Germany at the end of November.

Brief Report: The Fourth Adelaide Immunology Retreat (AIR) 2008 was held at Links Lady Bay Resort, Normanville, 12–13 September 2008.

AIR 2008 participants



AIR was again a huge success in 2008 and continued its tradition of allowing students and young scientists to get to know not only each other but also the science going on in Adelaide.

We were absolutely delighted that Prof Hamish Scott from Molecular Pathology, Hanson Institute, IMVS could join us as our ‘local’ speaker and that Prof. Richard Boyd could join us from the Monash Immunology and Stem Cell Laboratories in Melbourne as our ‘national’ guest. They could not have been a more wonderful, humble and easy-going couple of guests. Hamish and Richard's generosity of their time exemplifies what wonderful role models they are for us all.

A PhD student, Dr Dan Thomas, has submitted an article/review of the retreat in this same issue so I will just go on to congratulate all the students and research assistants for outstanding presentations. Judging was almost impossible but CONGRATULATIONS go to Lachlan Moldenhauer for best PhD student presentation (winning flights and early registration for ASI National Conference in Canberra, December 2008) and to Aruna Shivam who won best Honours presentation (winning \$100). Given the wonderful presentations by research assistants this year we will begin awarding them at AIR-5 2009 for best presentation.

It is an absolute honour to run these events but it would not be at all possible without financial support. For AIR 2008 we would like to sincerely thank Adela Scientific, Millipore, Osenses and BD BioSciences. As important, a big thank you to the organising committee for helping pull it all together – Sarah Haylock-Jacobs, Kiwi Sun and

Plinio Hurtado – and we are already looking forward to AIR 2009!

Don't forget **Day of Immunology, April 29th 2009** is fast approaching. Plans have already begun across the country and I am delighted to announce that New Zealand will also be participating next year. Fantastic news!

See you at a seminar and the annual meeting soon.

*Claudine Bonder
Councillor*

N.S.W. News

As my time as the ASI NSW Councillor draws to a close, I would like to take this opportunity to thank all those who have helped make my time as Councillor both interesting and fun. It has been a very busy and rewarding three years for me, from hosting a great range of visiting speakers to organising our very successful ASI conference last year at Manly Beach and several NSW Branch meetings, I have enjoyed the challenges. I could not end without a special thanks to Stuart Tangye for all his help organising the conference last year, and also a thank-you to Helen Briscoe who served as the NSW Councillor before me and who retires at the end of 2008; enjoy the fishing, Helen, you will be sadly missed. On a bright note though, I am delighted that Stuart Tangye has volunteered to take over as NSW Councillor and I wish him all the best in the role. One other recent development for our NSW branch is that we have formed, or reformed really, our NSW branch committee. The committee is Stu Tangye from the Garvan Institute, Scott Bryne from the University of Sydney, Simon Phipps from the University of Newcastle, Marian Fernandez from The Children's Hospital at Westmead, Pablo Silveira from the Garvan Institute, Kumu de Silva from the University of Sydney, Camden Campus and myself. We are keen to hear any ideas and suggestions you may have regarding the NSW branch so please feel free to contact any of us.

Our latest branch meeting held in October at the Vibe Hotel in North Sydney was a great success. We were fortunate to have Steve Reiner visiting from The University of Pennsylvania. Steve gave a great Plenary talk at the start of the meeting and spent the day discussing projects and presentations with our students. We had over 50 registrants at the meeting and, amidst some very tough competition, Gerard Kaiko, from University

of Newcastle, was awarded the ASI NSW student prize for the best presentation. Congratulations Gerard. The three judges for the day have all vowed they will not judge again as it was so difficult to pick a winner. Congratulations to all our speakers and my thanks to everyone for coming along and making our meeting such a big success. In the past month we have been treated to three great international visiting speakers. Along with Steve, we have been fortunate to have both Lewis Lanier and Wayne Yokoyama visit Sydney and present seminars bringing us all up to speed on new research in the field of NK cells.

So draws to an end my time as Councillor. Once again, my thanks to everyone for their support over the last three years and good-luck Stu.

*Bernadette Saunders
Councillor*



Gerard Kaiko, winner of the student prize for the best presentation, with Bernadette Saunders



Participants at the October branch meeting enjoying themselves



Victorian News



The Immunology Group of Victoria

A branch of the Australasian Society for Immunology

IgV-Miltenyi Winter Seminar Series

This year's speaker was Professor Michael Good from the Queensland Institute of Medical Research who spoke about Immunity to Malaria and immune escape. The session was very well attended and was followed by a chance to have more informal discussions with Professor Good over some wine and cheese. It was a terrific opportunity for students and postdocs to chat with one of the Australia's leading researchers in malarial immunity. The success of the series is set to continue next year and the IgV committee is looking for suggestions for next year's speaker. Please contact any member of the committee with your suggestions.

IgV annual retreat

The annual IgV meeting was a resounding success. This year saw a change in location from Beechworth to the Yarra Valley. It was well attended with around 70 registrants, a terrific mix of students, postdocs and more senior researchers. It was also tremendously supported by the generous sponsorship provided by companies and institutes. This not only enabled the meeting to be subsidized but also provided money for bursaries for the best presentations. On behalf of the IgV committee, I would like to start by thanking our major sponsors, CSL Ltd, Jomar Biosciences, Geneworks, Sapphire Bioscience, Invitrogen, Becton Dickenson and Tree Star. I would also like to thank The Burnet Institute, Monash University and WEHI for also providing generous support.

The Sunday night kicked off with a presentation (sponsored by CSL) by Professor Steve Reiner, the ASI visiting speaker. He gave a terrific presentation on asymmetric T cell division speculating how unequal distribution of key transcription factors within the dividing cells may play a key role in the decision of whether a T cell becomes an effector or memory cell. This sparked tremendous debate and discussion, something that was carried into the night over some Yarra Valley wine.



Steve Reiner sharing his wisdom in the scientific sense

We had a number of invited speakers that covered a wide range of topics. I would like to thank local invited speakers Liz Hartland, Dick Strugnell and Nicole La Gruta from the University of Melbourne; Phil Hodgkin, Andrew Lew and Marnie Blewett from WEHI; Sarah Russell and Joe Trapani from the Peter Macallum Cancer Research Institute; and Ashley Mansell from Monash University, for giving their time to attend and be involved. I would also like to thank Sandra Gardam, the current ASI Young Investigator of the Year, for coming down from Sydney to present some of her work (sponsored by Monash University). Sandra spoke to many students and postdocs about her experiences and inspired them to make sure they were eligible for such prizes at future ASI meetings. Monday and Tuesday featured talks from students and postdocs and covered a wide range of topics and fields. The science presented was of a very high standard as was the quality of the presentations. Given the success with sponsorship we were able to award six bursaries this year. The winners were:

Sally Amos – Jomar prize
Natalie Seach – WEHI prize
Mark Dowling – CSL prize
Ben Croker – BD prize
Laura Mackay – Invitrogen prize
Sara Prickett – Monash prize



*(LtoR) Ben Croker, Sally Amos, Sara Prickett, Laura Mackay, Mark Dowling.
(Not in photo: Natalie Seach)*

All the speakers should be congratulated on doing such a good job and also keeping to time. This ensured that no-one missed the bus for the winery tour on the Monday afternoon.

The IgV meeting is a terrific opportunity to meet and talk to colleagues and those lucky enough to be on Andrew Lew's table were given some insight into how to find the best Indian restaurant in a city. There was also some spontaneous entertainment from our ASI visiting speaker with Steve Reiner showing us that if the science career turns to custard, he could quite easily make a living doing card tricks.



Steve Reiner showing potential students that there is life outside of science

I would like to take this chance to thank all members of the IgV committee who helped in organizing this meeting. I would like to take the opportunity to thank Rose Ffrench, Andrew Lew and David Tarlinton. Rose was instrumental in finding and co-ordinating planning with the Yarra Valley Conference Centre. There is no doubt that without Rose's contribution, the meeting would not have been the success it was. Andrew Lew and David Tarlinton contributed to making sure the budget balanced (and wrote the cheques), helped organize the scientific

program and ensuring things went smoothly (e.g. picking up the printed programs and AV equipment). Finally, I would like to thank Frank Alderuccio and Ed Hawkins for driving the sponsorship search. This was the most successful year in terms of support the meeting has had and that is testament to Frank and Ed's hard work.

In summary, it looks like the new location and format for IgV will be set to continue next year so please make sure that you make yourselves available for next year.

Finally, I would like to take the chance to thank all of the IgV committee members for their contributions this year. We have had a busy schedule of events and all members have contributed their time and effort to ensure things go smoothly. As always, we are looking for new suggestions how we might better serve the Immunology community in Victoria so feel free to communicate any ideas or suggestions you have to members of the committee. Also, be sure to renew your ASI membership as this goes a long way to ensuring that we maintain a vibrant and interactive environment where immunology is promoted. See you next year.

*Stephen Turner
Councillor*



Above: Ed Hawkins showing how it is done

Below: Steve Reiner paying no attention to Ed



Attendees at the IgV meeting at the Yarra Valley Conference Centre

W.A. News

The major event we held for 2008 was the inaugural Perth Immunology Group (yes PIG!) meeting on October 9 & 10. We had 65 participants and the venue, the Flying Squadron Yacht Club, proved superb with wonderful views over the Swan River, nicely organised rooms, helpful staff and excellent catering. We were very lucky with weather as up until then we had been experiencing unseasonably heavy rainfall for several days; however, on those two days it was beautiful. The program included talks by our invited speakers and selected abstracts by postdocs and students as well as a discussion forum, a professional development session and a poster session.

The national invited speakers were our ASI President, Alan Baxter (James Cook University), as well as Ray Steptoe (Diamantina Institute and University of Queensland) and Ashley Mansell (Monash University). We really appreciated the efforts of these three who stayed for the full 2-day meeting, gave their talks, chaired and participated in the workshops and judged the prize winners. Alan also took on the role of local photographer and the results can be viewed on: <http://www.jcu.edu.au/school/pms/CGC/PIG2008Scrapbook/index.html>

The local invited speakers to whom we are also very grateful for giving up their busy schedules were Grant Morahan (West Australian Institute for Research), Jennie Blackwell (TVW Telethon Institute for Child Health Research) and Simon Mallal (Murdoch University). Thanks also go the local committee who worked really hard to make this meeting a success. Particular thanks go to Tony Scalzo who contacted

and organised the sponsors, Jane Allan who organised the posterboards and general layout of the venue and Matt Wikstrom who put the booklet together. The sponsors were generous with their time and money and participated in our professional development session; they were Australian Biosearch, BD Biosciences, Jomar Bioscience and Miltenyi Biotec.

Finally, we finish off the year with talks in November by two international visitors: Margherita Cantorna ('The Effect of Vitamin D on the Immune System'), organised by Prue Hart, and Pierre van der Bruggen ('Is it possible to correct the anergy of human tumor-infiltrating lymphocytes?'), an ASI Sponsored Speaker.

*Delia Nelson
Councillor*

Queensland News

Ian Frazer joined the ranks of Jorge Luis Borges, Paul Hindemith, Ernst Mayr and Fred Hoyle when he won the prestigious Balzan Prize in September, and followed that up a few weeks later with the Prime Minister's Prize for Science. Is Ian our most prized scientist? In any case, this level of public recognition helps justify the investment Australia makes in funding research in immunology, and Ian has been a brilliant ambassador.

This year's Ninth Annual 'Brisbane Immunology Group' retreat was held over August 21/22 at the Surfair Resort on the Sunshine Coast. This meeting is

sponsored by ASI, and always features a strong complement of interstate and local speakers, addressing a wide variety of topics. The meeting opened with a lucid presentation on the role of GPR43 in innate immunity by Charles Mackay (Garvan Institute), which provoked a lively and broad ranging discussion from the audience. This year's 'Jonathan Sprent Orator' was Ken Shortman (WEHI). Ken entertained us with his reflections on a career-long quest for elusive but fascinating cell lineages, aided by diversions such as skiing holidays. Jonathan Sprent (himself) continues to amaze with the elegance and power of simple models – in this meeting he described the subtleties of anti- IL-2 monoclonals in vivo, but he was none too subtle in his prowess at the beach cricket game organised by Ray Steptoe (Diamantina). And there was a perverse pleasure in noting that ASI President Alan Baxter, well known as an iconoclast, accepted the title of "BIG Icon"; however, there is no evidence that he has been in any way constrained by this honour. This year both the oral and poster ASI/BIG prizes were won by researchers from the Diamantina Institute. In addition to medals and ASI memberships, Sam Fiorenza won \$200 for his presentation in the Postgraduate Session, "Central memory T cells are more potent than effector memory T cells and show heightened responses to a local inflammatory cue"; and Tony Kenna's poster "Targeting antigen to diverse antigen-presenting cell types terminates memory CD8+ T-cell responses without eliciting tissue-destructive effector function" won him \$100.

Another highlight of the last quarter was the visit by Prof Steve Reiner (Abramson Family Cancer Research Institute, University of Pennsylvania) as an ASI invited speaker on October 8 – 9. Steve's talks at the Queensland Institute of Medical Research and at the Diamantina on "Inducing the Cell Fates Necessary for Immunity" attracted many favorable comments.

Looking far ahead, Queensland will host the 2009 ASI meeting, from 6 – 10 December, on the Gold Coast. As was done so successfully in Adelaide in 2004, we plan to host a "Federation of Immunological Societies of Asia-

Oceania" Advanced Training Course prior to the meeting. More details will be presented in Canberra at this year's meeting – see you there!

*Chris Schmidt
(Outgoing) Councillor*



Ray Steptoe (left) and Chris Engwerda in lively discussion over a glass at BIG



Jon Sprent belting the ball at BIG beach cricket



Charles Mackay (left) and Michael Good at BIG

A.C.T. News

The ACT branch is gearing up for the ASI annual meeting which will be held at the National Convention Centre in Canberra. The finishing touches are being put in place and we are looking forward to hosting our colleagues in immunology research.

In October we had the visit of Wayne Yokoyama who gave a lecture at the John Curtin School of Medical Research. Thank you to Gunah Karupiah for organizing his itinerary during his visit to Canberra. We have Prof Frank Carbone visiting Canberra on Friday November 14th to give a seminar at the John Curtin School of Medical Research. It will be a great opportunity for ASI members to listen to one of Australia's outstanding immunologists.

Plans are underway to help celebrate World Day of Immunology on April 29, 2009. We plan to hold a forum of scientific talks for year 11 and 12 high school students through the day, and in the evening we plan to have a public lecture. More details of these activities are to follow.

We are in the process of organizing thematic workshops on specific areas of interest for 2009. The first one, which will be held in May, will be focusing on T cell homeostasis and we will plan to organize a second meeting for the second half of the year.

Looking forward to seeing you all at the ASI Meeting in Canberra.

*Gerard Hoyne
Councillor*

Travel Award Conference Reports

FIMSA 2008

Santi Suryani

Garvan Institute of Medical Research, Sydney

Recently I had a great opportunity to attend the 4th Congress of the Federation of Immunology Societies of Asia-Oceania (FIMSA) 2008 which was held from 17 – 20 October 2008 in Taipei, Taiwan. Over the four days, I was immersed in various different aspects of immunology with lectures given by the experts in the field. The great line of plenary speakers ranged from our own Nobel Prize winner, Peter Doherty; the TLR master, Shizuo Akira; Regulatory T cells guru, Alexander Y. Rudensky; to dendritic cells expert, Joost Oppenheim.

The conference began with an opening lecture from Peter Doherty. His talk focused on the role of killer T cells and immunodominance hierarchies. At the end of the talk, he mentioned an interesting fact of the slow growth of human immunology research. A sad reality is that whenever we go to our general practitioner, they are able to provide test for liver function, kidney function, heart function and other organs' function. However, the immunological tests that we currently have are only as basic as whole red blood cell and white blood cell counts. In general, doctors would not be able to answer a simple question of how well one's immune system is. Peter Doherty highlighted the importance of translational research from animal research to human research and reminded us of the big picture that what we are doing is for the sake of other human beings.

I was very excited by this since my PhD work focuses on human research. In particular, understanding human transitional B cells from the developmental, molecular, biochemical and genetic point of view. It was a great relief to see a number of presentations also focused on human research, ranging from primary immunodeficiencies, SLE, rheumatoid arthritis, juvenile scleroderma to type 1 hereditary angioedema.

Rafi Ahmed also gave a brilliant lecture of immune strategies for treating chronic viral infections followed by Sergio Romagnani's insight on understanding human Th17 cells. Eng M. Tan also presented human focused research from the aspect of tumour-associated

antigens as a diagnostic and prognostic marker in cancer. Lie Ping Chen also discussed the clinical trial of PD-1 blockade in patients with refractory cancers. Meanwhile Ping Ning Hsu linked *Helicobacter pylori* infection with CCR6 in inducing inflammation.

Apart from the immunological aspects, being located in this part of Asia meant there was definitely a lot of food on offer. The amazing buffet that we had during the opening night introduced the range of Taiwanese cuisine. Beautiful serenades such as Pachelbel's *Canon in D* and Walt Disney *Aladdin's* theme song *Whole New World* accompanied us together with the cool breeze. Also, similar to Australia, all of the sales stands at this conference provided food to attract the delegates to see their range of products. In contrast to simple morning tea and cakes offered in the traditional sales stand in Australia, the food in the sales stands ranged from shaved ice with red bean and milk, ice cream sundaes, full baristas ready to give you fresh coffee and even Starbucks coffee. It was an absolute delight! Definitely there was plenty of food, food and more food throughout my time in Taipei.

It has been a great time of exchanging ideas with other brilliant young scientists and getting to know more about the immunology research focus of the Asia-Oceania region. I believe that many of the delegates represent the bright future of immunology in this region.

My sincere thanks to ASI and the FIMSA organisers for their support and giving me this opportunity to attend this wonderful conference.



FIMSA travel award recipients from the Garvan Institute. LtoR: Alexis Vogelzang, Helen McGuire, Santi Suryani

An invitation and a request to all ASI members

to contribute copy that they think might be interesting, useful, historical, humorous or thought provoking.

- We invite our student membership to voice their views on issues that interest or directly concern them.
- It's our newsletter, so let's support it and strive to make it even better.
- The ASI newsletter comes out 4 times a year and we welcome your contributions.
- **AND NOW YOU COULD WIN \$100 FOR THE BEST ARTICLE PUBLISHED IN THE NEWSLETTER!**

**Federation of Clinical Immunology Societies Annual Meeting, Boston, USA, June 2008 and
8th International Workshop on Pathogenesis and Host Response in Helicobacter infections,
Helsingor, Denmark, July 2008**

Stacey Harbour

Centre for Animal Biotechnology, University of Melbourne

I was given the opportunity this year to attend two international conferences with the support from an ASI Postgraduate International Travel Award. The Federation of Clinical Immunology Societies (FOCIS) 2008 Annual Meeting was held in Boston from June 5–9, and brought together over 20 member societies as well as biotechnology and pharmaceutical companies that collectively represent over 40,000 basic and clinical scientists. The meeting covered a broad range of topics relating to immune mediated diseases with (as the name suggests) a clinical bias.

Prior to the start of the meeting, I attended a satellite symposium, 'Antigen recognition at mucosal surfaces,' organized by the Society for Mucosal Immunology which is the most relevant of the FOCIS societies for my work in host response to *Helicobacter* pathogenesis. Highlights included J. Rodrigo Mora's (Harvard) presentation demonstrating that gut dendritic cells can produce retinoic acid which is capable of both inducing gut homing T cells and Tregs, as well as inducing maximal IgA production from gut B cells. Charles Elson (UAB) presented work showing that two levels of immune regulation control the response to bacterial flagellin in the context of colitis, with the first mechanism involving mucosal IgA limitation of T cell exposure to flagellin and a secondary mechanism involving TGF β mediated Tregs. Talal Chatila (UCLA) spoke about the two main types of Tregs, natural Tregs and inducible Tregs and the importance of both subsets in immune homeostasis, as demonstrated by a Foxp3^{-/-} mouse line which is rescued from fatal autoimmune pathologies only by transfer of both Treg populations and not individual populations alone.

The main meeting was broken up into morning and afternoon plenary sessions followed by four concurrent symposia made up of invited speakers and oral abstract selections. The first symposium I attended was entitled 'Novel Cytokines' which included an interesting

presentation from Hackling Margery Ma (Wyeth Pharmaceuticals) demonstrating a correlation between proinflammatory IL-22 levels and disease severity in psoriasis and the development of an anti-IL-22 mAb that reduces disease severity in mice. Dario Vignali (StJude) spoke about the importance of IL-35 on Treg function and its role in induction of effector T cell suppression, and Dan Cua (Schering Plough) discussed the effect of IL-23 production from DCs on autoimmune pathologies. Other highlights included a plenary presentation from Richard Flavell (Yale), with an overview of the role of TGF β as an immunosuppressor and a possible role in Alzheimer's Disease. Their work using a number of specific knockout and transgenic mouse models to elucidate the role of TGF β was very impressive and certainly encouraged my still jet-lagged brain to start working!

Whilst the meeting covered a broad range of subjects including a strong focus on clinical immunology, there were clearly two 'hot topics' – the development and mechanism of Th17 cell function, and the plasticity of Tregs. David Hafler (Harvard) gave a plenary talk bringing these two topics together and discussing the finding that under the right conditions, Tregs can switch to Th17 cells, and this process can be driven by inflammation.

Poster rounds and social events were held at the conclusion of each day. The trainee reception was a fun and relaxing way of bringing students together (with two important student staple items – pizza and beer!).

The meeting was held in Boston, which has a large number of universities and research institutes as well as biotechnology and pharmaceutical companies in a small area. This made for a well attended and high quality meeting.

After the FOCIS meeting I travelled to Baltimore to visit Assoc Prof Tom Blanchard, a well known *Helicobacter* researcher at the University of Maryland. It was a great opportunity to tour their research facilities as well as meet members of the lab and discuss

some of my work. Dr Blanchard and his lab were very generous and my visit included dinner at a restaurant on the waterfront in Baltimore's scenic inner harbor.

I also travelled to Nottingham, UK, for a brief visit with Assoc Prof Karen Robinson and Prof John Atherton, both researchers with strong records in *Helicobacter* virulence factors and pathogenesis. Prof Atherton is a clinician in the Division of Gastroenterology and thus has access to a wide range of human gastric samples which is a fantastic resource. It was a good chance for me to discuss my work and also get some valuable feedback for the remaining months of my PhD. A first time visitor to the UK, I managed to fit in as much sightseeing as I could in four days and had a great time.

From the UK I travelled to Denmark to attend the 8th International Workshop on Pathogenesis and Host Response in *Helicobacter* infections. This is a small meeting held every two years (this year with an attendance of 120) over three days, and has an emphasis on presentations by early career researchers. It is held in Helsingor, a seaside town about an hour out of Copenhagen, also home to Kronborg Castle (the setting for Shakespeare's *Hamlet*). The weather was warm and sunny, but it took some time getting used to a 4am sunrise and 11pm sunset!

The first session had a focus on animal models of *Helicobacter* infection. The mouse model is most commonly used, but does not completely replicate the course of *Helicobacter* pathogenesis in humans. Gabrielle Rieder (Munich) led an interesting discussion on alternative animal models. The Mongolian gerbil is a popular animal model (although impossible to import into Australia). The gerbil, unlike the mouse, can be infected with human strains of *H. pylori*, and these strains can induce stronger inflammation, although it is commonly noticed that pathology can vary greatly between different gerbil colonies.

The session on *Helicobacter* vaccines had a number of interesting presentations. John Nedrud (Case Western Reserve University) presented work showing the IL-23/IL-17

pathway may be important for eradication of *H. pylori*. Mice lacking IL-23 showed less protection than wild type mice after intranasal vaccination against *H. pylori*, and this was associated with lower levels of IL-17 mRNA. Sukanya Raghavan (Gothenburg University) also discussed her work showing the effectiveness of a sublingual *H. pylori* vaccine in mice, and Mohammad Benghezal (Ondek) from Nobel Laureate Barry Marshall's group presented some of their work with the controversial aim of using *Helicobacter* as a vaccine delivery system. I was fortunate enough to have the chance to present some of my work identifying a major QTL involved in response to *Helicobacter* in a mouse model.

There was another interesting session discussing extra gastric *Helicobacter* infections. AJ Lawson (Health Protection Agency UK) presented his work isolating a new *Helicobacter* species from a Western Hog-nosed snake, adding yet another species to the very long list of animals that can be colonized by *Helicobacter*.

The meeting was held in a fantastic setting overlooking the narrow Øresund Strait, with the Swedish coast clearly visible from the conference venue. All meals were included as well as nightly entertainment (including live music and visits to art museums). I could easily have stayed longer!

I really enjoyed attending both of these conferences and I would like to again thank ASI for their support. This trip provided me with a wonderful opportunity to present my work in an international setting to get valuable feedback and suggestions, as well as visit labs to pursue potential post doctoral positions and collaborations.



Autoantibodies, more than just autoimmune diseases The 10th International Workshop on Autoantibodies and Autoimmunity

Di Yu

Garvan Institute of Medical Research, Sydney

The 10th International Workshop on Autoantibodies and Autoimmunity (IWAA) was held in Guadalajara, Mexico from 6–9 March, 2008. This workshop series is held every 2–3 years as an international gathering of academics, diagnostic and industry scientists with a common interest in research on autoantibodies, autoimmunity and related molecular and cell biology. The concept of IWAA was developed by Dr Eng M Tan, Professor Emeritus in the Scripps Research Institute and Professor Ekkehard KF Bautz, former head of the Institute of Molecular Genetics in Heidelberg. Besides them, Professor JR Kalden from Erlangen and Professor Mitsuo Homma of Keio University School of Medicine in Tokyo co-founded the first workshop held in Heidelberg, Germany, 1989. The 4th IWAA was held in Melbourne, 1995.

Autoantibody Diagnostics

The IWAA originated from the research to characterize new autoantibody targets/ autoantigens and to study the relationship of different autoantibodies to various autoimmune diseases. In keeping with this, Professor Marvin Fritzler from University of Calgary described comparisons of various autoimmunity diagnostic methods and highlighted new diagnostic technology including Addressable Laser Bead Immunoassays (ALBIA), which showed reliable, accurate, cost-effective and highly sensitive results in a rapid turn around time. Dr Luis Eduardo Coelho Andrade from Fleury Research Institute, Brazil, presented a three-year follow-up study combining different parameters in antinuclear antibody (ANA)-Hep-2 tests including titre, avidity, immunofluorescence pattern and immunoglobulin isotype to distinguish autoimmune patients from healthy subjects.

Autoimmune Diseases and Cancer

Both autoimmune diseases and cancer are diseases associated with escape of

multiple surveillance mechanisms. The two diseases are also connected by autoantibodies since the immune system is capable of sensing aberrant structures, altered distribution and abnormal functions of cellular components involved in tumorigenesis and making autoantibody responses to the tumor-associated antigens (TAAs). Dr Eng Tan used hepatocellular carcinoma as an example to demonstrate the feasibility of measuring autoantibodies to an array of TAAs to classify tumor types and report malignant transformation events, even before standard clinical features can be detected. Dr Jianying Zhang from the University of Texas further discussed the systemic strategy to characterize TAAs using proteomics method.

Antibody-secreting cells: sin and virtue

In patients with SLE, autoantibodies specific for intracellular antigens are prevalent. The serum concentrations of autoantibodies specific for particular autoantigens are stable, which indicates that they might be secreted by long-lived plasma cells. Professor Falk Hiepe from the Medical School Charité, Berlin, discussed the role of long-lived plasma cells in autoimmunity. The generation of autoreactive long-lived plasma cells is an early step in pathogenesis in many autoimmune patients. The elimination of long-lived plasma cells that reside in the bone marrow still remains a challenge of the future. By contrast, Professor J Donald Capra from Oklahoma Medical Research Foundation gave an interesting presentation on how to isolate antibody-secreting cells from the blood after booster vaccination to influenza virus and generate monoclonal antibodies against influenza vaccine components with high affinity. This novel strategy represents a substantial technological advance to generate multiple high affinity monoclonal antibodies from humans within a month of vaccination.

Autoantigens in cell biology

Characterization of autoantigens has been very informative for revealing

Stacey Harbour (right) with Yok Teng Chionh (another PhD student from the Centre for Animal Biotechnology) in front of one of the canals that runs through the city of Copenhagen

new mechanisms for RNA metabolism. Professor Sandra Wolin from Yale University showed that the Ro 60 kDa protein, a frequent target of autoantibodies in patients suffering from systemic lupus erythematosus (SLE) and Sjogren's syndrome, bound small RNAs called Y RNAs on the outer surface and misfolded RNAs in the central cavity of its donut-like structure to regulate RNAs (such as maturation of 23S rRNA). Professor Edward Chan from University of Florida identified autoantibodies to cytoplasmic foci named GW bodies (mammalian P bodies), important organelles for RNA interference pathway and mRNA degradation.

MicroRNA pathway in autoimmunity

The discovery of GW/P bodies, identified using autoantibodies, revealed the mechanism of microRNA (miRNA) and short interference RNA (siRNA)-mediated gene expression regulation. Intriguingly, the involvement of miRNA-mediated gene expression regulation in autoimmunity has generated lots of interest. I presented our recent work demonstrating that miRNA-mediated gene expression regulation is important for peripheral T-cell tolerance and showed that the defect of this mechanism, due to a mutation in *Roquin* gene, results in the development of autoimmune syndrome in mice. In human SLE patients, a few miRNAs, including in miR-146a, have been reported to be differentially expressed compared to healthy individuals (Professor Nan Shen, Shanghai Institute of Rheumatology). The mechanism studies showed a few

key components in the Type I Interferon (IFN-I) pathway could be repressed by miR-146a so down-regulation of miR-146a expression in SLE patients might enhance IFN-I pathway. This finding is in agreement with the observations presented by Kaleb Pauley and Paul Dominguez-Gutierrez from Professor Edward Chan's lab.

Genetics in autoimmunity

The critical role of IFN-I pathway in the development of autoimmunity was also examined by Professor Westley Reeves (University of Florida) using an induced lupus animal model and Professor Mary Crow (Hospital for Special Surgery and Weil Medical College of Cornell University) using samples from SLE, systemic sclerosis and autoimmune thyroid disease patients. Professor Marta Alarcon-Riquelme from Uppsala University in Sweden further emphasised the correlation of the IFN-I pathway and SLE with reference to *IRF5*, *PTPN22* and *STAT4*, and described a number of newly identified genes associated with SLE which are components in the IFN-I pathway.

New treatments

Professor Joachim Kalden from University Hospital Erlangen, Germany, reported the proteasome inhibitor, Bortezomib, which is approved for the treatment of multiple myeloma, could be used to treat autoimmune diseases by eliminating both short- and long-lived plasma cells. Dr Antonio La Cava from University of California Los Angeles reported lupus-prone mice can be tolerized with an artificial peptide based on murine anti-DNA IgG sequences mainly by regulating Treg cells.

Food, environment and autoimmunity

Finally, I will give you some information you might not want to hear. Dr Minoru Satoh from University of Florida reported that farmed Atlantic salmon were routinely vaccinated and subsequently developed autoimmunity with high percentage positive of autoantibodies. Professor Herrera-Esparza from University Autonoma de Zacatecas in Mexico reported that the chronic contamination with heavy metals, such as lead in water, could trigger an autoimmune phenomenon manifested by autoantibodies, remarkably recognizing proteins involved in cell division.

Concluding remarks

For me, IWAA was a conference distinguished from a conventional immunology conference by a mixture of topics comprising immunology, rheumatology, genetics and cell biology. The interaction among disciplines was great and stimulated lots of my thoughts about research directions as an immunologist engaged in basic studies. This was a small conference but well organized. Many speakers presented their latest data which was published a few months later in prestigious journals including *Nature*, *Nature Medicine*, and *Nature Genetics*.

It is a long way from Australia to Mexico. Thank you for the International Travel Award (ITA) from ASI to make it happen. ASI, Gracias!

Last, but not least, the next (11th) IWAA will be held in Shanghai.



The 10th International Workshop on Autoantibodies and Autoimmunity.
Di Yu is the third from right in the back row

Gordon Research Conference, Oxford, UK 2008

Helen Simkins

Malaghan Institute of Medical Research, Wellington, NZ

Recently I attended the Gordon Research Conference (GRC) on immunochemistry and immunobiology held in Oxford, England from 17- 22 August. GRC conferences are small and speakers are encouraged to present unpublished work making it an excellent environment to have discussions with many top international scientists and to hear about the most current developments in the different areas of immunology. As a broad range of topics were covered, there were speakers and attendees with backgrounds from many aspects of immunology. This gave me exposure to many fields of immunology and the chance to meet many new people who will be useful contacts in the future.

I am currently a PhD student at the Malaghan Institute of Medical Research in Wellington, New Zealand. My project has involved investigations into the regulation of dendritic cell (DC) survival by cytotoxic T cells and NKT cells. The conference had a few talks specific to my field of interest however there were also a number of excellent talks out of my direct field of interest. This challenged me to think a bit more about the broader discipline of immunology and how there are many different ways to approach similar scientific questions.

The conference started on a Sunday evening with a session entitled “Molecular Aspects of Immune Recognition”. I was specifically interested in the talk given by Dr Gillian Griffiths. Dr Griffiths discussed work looking at the strength of TCR signalling and how this affects the ability of the CTL to kill target cells. I must admit it I found it a very intense session after travelling across the other side of the world. However it set a good precedent for the following sessions to come.

I also really enjoyed the session on innate immunity. First up we had Dr Jules Hoffmann discussing his long-standing work with *Drosophila*. It was fantastic to get the opportunity to listen to a lecture from someone who has contributed for many years to research in the field of innate immunity. Dr Ruslan Medzhitov then presented some very interesting findings looking at activation of the Th2 response by an allergen. Dr Medzhitov proposed a model in which basophils directly recognise allergens leading to Th2 differentiation of naïve T cells. Dr

Caetano Reis e Sousa also presented some unpublished data from his group. They have found a “danger” receptor that is restricted to CD8⁺ DC and pDC and which recognises dead cells. The ligand for the receptor is currently unknown. It seems that this “danger” receptor may play an important role in controlling the immunogenicity of cell death. The rest of the session was filled with equally interesting talks.

In the session entitled “Lymphocyte activation and signal transduction” I found the work of Dr Steve Reiner very interesting. He discussed some unpublished work to do with T bet and asymmetrical cell division of T cells. It was of great interest for me to meet and hear Dr Laurent Gapin who spoke in the “Innate or natural memory lymphocytes” session on how the NKT cell TCR can recognise a wide range of glycolipids. The session on “Lymphocyte Dynamics” was very colourful with the likes of Dr Ron Germain showing many movies of cell imaging that goes on in his lab. Overall I learnt a lot from all these lecture sessions and really enjoyed hearing about the diverse range of immunology being carried out.

As well as hearing these fascinating talks we also had a poster session each afternoon for two hours. This allowed the PhD students, including me, and Post-docs to present their work. As there were approximately 80 posters, they were divided into two groups and were kept up for two sessions each. I found this organization helpful as it allowed me to view all the posters presented as well as have many people view my poster presentation. Overall I found that the poster session was a great opportunity to gain valuable feedback on my own work.

Following the conference, I had the opportunity to visit several labs and present my data. Whilst in Oxford I had the chance to be shown around the William Dunn school of Pathology and I also met

with Dr Vincenzo Cerundolo who is at the Weatherall Institute of Molecular Medicine. Over the last few years Dr Cerundolo has done a lot of work looking at how NKT cells interact with innate and adaptive immune responses. As I have currently been looking at the interaction between NKT cells and DC I was very pleased to get the opportunity to meet with Dr Cerundolo.

I then travelled to Cambridge to visit Dr Gillian Griffiths at the CIMR. The work of Dr Griffiths involves a cell biology based approach to understanding how T cells kill target cells. I presented my data to the Griffiths lab and throughout the rest of the day I had discussions with all the lab members about their work. This enabled me to get a good idea of all the research being done in the group. The following day travelled to London to visit the National Institute of Medical Research at Mill Hill where Dr Gitta Stockinger hosted me. Here I presented my data to the whole institute and had the opportunity to speak with various researchers at the institute.

After a few days rest I then flew to Marseille in the south of France to visit Dr Philippe Pierre at the Centre d’Immunologie Marseille-Luminy (CIML) based on the huge Université de la Méditerranée campus. The focus of the group is a cell biology approach



to understand protein trafficking and leading to antigen presentation. One PhD student had also attended the GRC conference so it was nice to see a familiar face again. After I arrived we had lab meeting sitting outside in the sunshine eating croissants and drinking coffee. I then gave my presentation to the group and had the chance to have discussions with the Post-docs. I was then given a tour of the institute and shown all the core facilities they have access to.

Lastly I visited the labs of Drs Hans Acha-Orbea and Sanjiv Luther in the biochemistry department at the Université de Lausanne in Switzerland. I flew from Marseille to Zurich and travelled by train to Lausanne giving me the chance to see the beautiful Swiss countryside. The focus of Dr Luther's research is looking at the interaction between stomal cells, DC and T cells, whereas the focus of Dr Acha-Orbea's research is on investigating DC immunology. My day was divided between having discussions with the two labs and giving my seminar to the

department. It was a very intensive day but I enjoyed the many interesting discussions.

Altogether, attending the GRC conference and visiting many different labs was a great experience. I found it extremely beneficial to have the opportunity to visit labs at this stage of my PhD, as it was an excellent chance to investigate potential post-doc positions. This experience would not have been possible without the support of the ASI so I would like to give my sincere thanks to the Society for sponsoring my trip.

FIMSA 2008

John Miles

Queensland Institute of Medical Research

Taipei was a wonderful adventure. On the surface, the place looks a whole lot similar to our home but underneath the surface lay the golden quirks; those fascinating comparisons which remind you that you are far, far from home. For example, on the descent to Taipei you're greeted by an animated film given by a Mandarin-speaking dog; a 35 foot tall dog who apparently lives on the upper fuselage of my Boeing 767. Now our canine friend welcomes us to Taiwan and informs us all that we should take some precautions during our visit, in particular; we should be ever vigilant against bird flu. He proceeds to give invaluable hygienic counsel such as to 'wash your hands after handling bird faeces'. I was easily convinced to follow his advice since the animated slides of bird flu indicated that the culmination of infection was facial explosion.

Not wanting my face to explode, I followed the subsequent directives of the airport ground staff meticulously; including a saunter over the Disinfecting Carpet™ and the infrared fever check by a dozen blokes in uniforms and surgical masks.

My taxi ride to the hotel was normal; bar the fact that the taxi's median speed was roughly 140km/hr and the entire interior (including seats, floor, doors and roof) was covered in bubble wrap! OK with me since it didn't have any functional seatbelts. For dinner I bought a normal-looking chicken burger from McDonald's; which turned out to be so atomically spicy it made me weep openly

– much to the amusement of my fellow franchise diners.

The next day, the 4th Federation of Immunology Societies of Asia-Oceania (FIMSA) conference commenced. The conference went straight for the jugular with Nobel and keynote lectures by luminaries Peter Doherty and Mark Davis. Allow me to accentuate: a lecture by the man who DISCOVERED MHC RESTRICTION and a lecture by the man who DISCOVERED THE T CELL RECEPTOR – together in the same afternoon. Clearly, this kind of line-up is a sure-fire, rapture injection for any T cell *fanboy* or *fangirl*. They didn't disappoint; Peter spent his time masterfully blending the past, present and future of immunology and where to shift the fronts of the disease war. As always; he executed this with simplicity, humility and humor. Favorite Peter quote: 'won't stop you getting sick; will stop you getting dead'. As usual, Mark has been busy with a machete in the scientific thicket. He presented remarkable microscopy-based movies showing individual T cells activating in real (micro second) time and presented hard figures for the number of antigens required for a single T cell to fire and precisely how long it takes to do so. Mark's new work on *in situ* membranes was equally extraordinary. This new tech has allowed, for the first time, to directly visualize TcR cluster rafts on the membrane surface and permitted *in situ* estimates of TCR dissociation rates and affinities. Favorite Mark quote: 'life is complicated'. Rounding off this amazing first act was a marvelous structural presentation by Scripts' Chi-Huey Wong; who is evidently working on everything and is going to cure HIV and cancer with sugar.

The opening ceremony was splendid with a few personal firsts. It was the first time I've eaten a spring roll filled entirely with peanut butter and it was the first time I've heard Canon D played on xylophone. Perhaps not what Johann Pachebel had in mind but enjoyable nevertheless.

Other conference highlights included astounding progress on programmed death receptor 1 (PD-1) research. This was received as a double-barreled shotgun blast by Rafi Ahmed and Lieping Chen. Rafi presented unpublished, preclinical work in monkeys where they used a monoclonal anti-PD-1 antibody to take the T cell brakes off and suppress SIV infection. Latently infected animals were given four antibody injections (at 3mg/kg) which were surprisingly well tolerated. The SIV-specific T cells increased in frequency and viral titer decreased in all animals who received the antibody. Importantly, all animals who received the injections also survived long term SIV infection; which is invariably fatal in control animals. Lieping presented unpublished work on a human phase I trial. Roughly three dozen cancer patients (colon, RCC etc) received a single dose of anti-PD-1 antibody. Once more, amazingly, the dose was well tolerated with no or low grade side effects up to 15mg/kg! Although very early, the data looked promising with regression common across a number of cancer types. Lieping indicated that phase II multidose trials were imminent as well as an added trial blocking the PD-1 ligand, PD-L1.

I could go on about great talks on Th17 cells, on brand new immunoproteins or the great poster sessions but I won't, I'll talk about

some more peculiar stuff instead. For lunch one day we got a croissant with a hotdog in it. For dinner, we got jellyfish. Tastes like 3% agarose and 300mM of NaCl by-the-way. During the intermission between talks, they played Blink 182 tracks in classic instrumental. And the trade stands? They had booth babes! In nurse's outfits! Giving out candy! Awesomeness? Perhaps yes.

Taipei was beautiful – a mega metropolis surrounded by small jagged mountains and thick jungle. Courtesy of FIMSA, we each got a free ticket to see the city in all its glory via the observation deck of Taipei 101. Taipei 101 just happens to be the tallest skyscraper on Planet Earth. And was it as cool as a moose? Yes it was. I was also privileged to see the utterly magnificent, and newly renovated, National Palace Museum. This museum has a modest 650,000 permanent piece collection. Apparently, this collection is subdivided into 3-month, 60,000 piece rotations and it is reported to take 12 years to see them all. I had about 57 minutes. Nonetheless, the place was staggeringly beautiful. I saw intricately carved Chinese jade statues dating from 6300 BC. To reiterate, these things are 8303 YEARS OLD! That's 3800 years older than the pyramids and 5550 years before Homer penned the Odyssey. Damn.

This is my second FIMSA, with my first being the 3rd FIMSA in Guangzhou, China, and they truly are an unmatched experience. Personally, FIMSA are my favorite meetings. They're like that martini you've never tried: one part fantastic place, one part fantastic science and shaken with zany. Tastes funny at first, but you'll want another one.

So to summarize, FIMSA2008: bubble wrap, jellyfish and Mark Davis.

I'm not sure where the 5th FIMSA is going to be but its big cousin, the 14th International Congress of Immunology, is in Kobe, Japan 2010. You must go; you could see ninjas in Japan! Ninjas! Being 2010, they might even be cybernetic ninjas! Oh, and there will probably be some world class immunology there too, unpublished *Nature* papers and whatnot.

P.S. My pure and genetically unmodified appreciation goes to ASI and FIMSA for

allowing me to attend and present my work.



SPF MICE AND RATS
CUSTOMISED BREEDING
MAINTENANCE OF STRAINS
IMPORT AND EXPORT
CRYOPRESERVATION



PO Box 1180 Canning Vale DC, Western Australia 6970
Telephone: (08) 9332 5033 Fax: (08) 9310 2839
Email: info@arc.wa.gov.au Web site: www.arc.wa.gov.au

ASI Student Page

Random Thesis Writing Tips ... Avoid Learning It the Hard Way

Keep all kinds of food away from your desk.

Try to show your supervisor samples of your thesis before writing the entire chapter/section. This is to make sure that you are on the right track before wasting hours/days on doing the wrong thing.

Moderate drinking on a Friday night is great. Excessive drinking on a Tuesday is not a good idea.

Always make figures and figure legends before writing anything.

Always stay ahead of your supervisor to speed up the drafting process.

Take a good break every 3-4 hours.

Be flexible, change plans and goals as appropriate.

Keep a good Endnote library and enter all the references as you write.

One chocolate bar may make you happier; ten chocolate bars are unlike to have any additive or synergistic effects.

If you get bored at writing something, work on something else to keep yourself productive. This is like working in a chocolate factory, change tasks every 3-4 hours.

Instant Me Goreng, canned fruit and Red Bull is not a balanced diet.

Learn how to say 'No' to more experiments. Should practice saying 'No' in front of a mirror.

Playing sport is great, but avoid jarring fingers playing basketball/netball/volleyball, which will make the writing process even more painful.

Like an exam, don't get too hung up on a particular section. You can always come back to it later.

Try to understand your supervisor, that they will probably have more important things to do than reading your thesis. However, sometimes it is necessary to give polite hints to speed things up.

Papers first, thesis second? Thesis first, papers second? It really depends.

Try to educate your family and friends right from the start that thesis writing can be hard and may take a long time. Also apologize in advance that you may get a little grumpy/bitter/homicidal from time to time.

Get plenty of sleep and avoid unnecessary stress. Sleep deprivation and living on coffee do not help you write better, they just help you stare at the LCD screen for longer.

Ivan Poon

Exciting opportunity for to join a local Biotech Company growing on a global scale

Vaxine is an Australian biopharmaceutical company developing a portfolio of novel vaccines, both therapeutic and prophylactic, to treat infectious diseases, allergy, autoimmunity and cancer. These vaccines are underpinned by Vaxine's novel technologies which include the Advax range of highly effective and non-reactogenic adjuvants plus a number of novel vaccine antigens. Vaxine's Advax platform technology signifies a major breakthrough in vaccine design in recognition of which its development is being financially supported by the US government.

With a vision to be a leader in human vaccine development in Australasia, Europe, North America and Japan, Vaxine has a large vaccines pipeline supported by major funding from the US government through the National Institutes of Health.

Vaxine are currently seeking people interested in joining our company.

Positions available include;

Quality Systems Officer
Senior Production Scientist

Senior R & D Scientist
Research Scientists

For expressions of Interest submit CV to Trevor Liddell, Business Manager Vaxine Pty Ltd, PO Box 18, Flinders University BEDFORD PARK SA 5042 Trevor.liddell@health.sa.gov.au www.vaxine.com.au

Adelaide Immunology Retreat (AIR-4) 12–13 September 2008



Who says good wine and great immunology don't mix? This year in early Spring the 4th annual Adelaide Immunology Retreat (AIR) was held at the very modern Links Lady Bay Resort just out of Normanville on the Fleurieu Peninsula. The aim of the retreat is to inspire excellence in immunology research by mingling our local PhD and Honours students with some of the best Australian immunologists in the field. This year our guest speakers were Prof. Richard Boyd (Director of Monash Immunology and Stem Cell Laboratories, Melbourne) and Prof. Hamish Scott (recently appointed Head of Molecular Pathology, IMVS, Adelaide) who both presented awe-inspiring feats of cutting edge science. Richard took us on an exciting journey behind his relatively recent discovery of thymic epithelial stem cells and their ability to regenerate an entire functional organ (namely the thymus) in adulthood through hormonal manipulation. As expected, there was more than just a splash of mischievous humour involving sex steroids; his discussion of the ethics of stem cell research both now and into the future of regenerative medicine I found very interesting. Hamish presented a tour de force of "immunology meets genetics" with the cloning of the mysterious AIRE gene, a transcription factor expressed in thymic epithelial cells that is involved with processing T cells and their response to self-antigens (AIRE is mutated in a number of pedigrees suffering a plethora of autoimmune endocrine conditions). The importance of enjoying the journey along the way, forming enduring collaborations and translating basic science into real clinical outcomes was emphasised by both guest speakers.

Each student attendee was encouraged to present a 10 minute update of their recent work in a fairly informal setting (but with good coffee, scones and sweets) and time for questions and discussion. Highlights of the meeting included some world-class studies into mast cell signalling and their response to UV radiation (Lisa Biggs and Aruna Shivam from Michele Grimbaldston's new group in the division of Human Immunology, IMVS), fascinating insights into the immunology of pregnancy by Lachlan Moldenhauer and Leigh Guerin; novel aspects of PI3K

signalling in chemotaxis and autoimmunity (Julie Brazzatti and Sarah Haylock-Jacobs), the origin of lymphatic vasculature (Emma Gordon), new roles for sphingosine signalling in leucocyte trafficking (Kiwi Sun from Claudine Bonders lab) and phosphoflow analysis of chronic myeloid leukaemia patients and their response to treatment (Stephen Blake).

Everyone enjoyed an afternoon of wine tasting overlooking the bay catered by local McClaren Vale winery "Hugo Wines" and/or nine holes of golf on a challenging and surprisingly undulating new course complete with grazing kangaroos and water hazards (I'm sure I spotted Hamish Scott in the rough more than once!).

Congratulations to Honours student Aruna Shivam and PhD student Lachlan Moldenhauer who won prizes for the best presentation including registration and travel to ASI meeting this year. Thank you to our generous sponsorship from Millipore, BD Biosciences, Adela Scientific, Osenses and most of all the Australian Society for Immunology. Everyone I spoke to agreed this was definitely the best retreat we've had yet. Thank you again to Claudine Bonder for keeping the vibe alive and organisers Kiwi Sun (who found a great local Chinese restaurant happy to cater for a rowdy bunch), Sarah Haylock-Jacobs and Plinio Hurtado. Stay posted for next year's meeting (AIR-5) for which planning is already underway. For only \$30 (student ASI member) what better way to soak up some cutting edge science, meet fellow scientists who have a passion for immunology and enjoy the fruits of the Fleurieu?

Dan Thomas

UPCOMING LECTURES & CONFERENCES

2nd Australia-China Biomedical Research Conference (ACBRC2009)
April 24–27, 2009
Tianjin, China
www.acabs.org.au/ACBRC2009.html
Abstract Deadline: January 31, 2009
Early Registration Deadline: January 31, 2009
Junior Investigator Travel Award
Deadline: January 31, 2009

Immunology 2009 – 96th Annual Meeting of The American Association of Immunologists
May 8–12, 2009
Seattle, Washington, USA
meetings@aai.org

Frontiers in Immunology Research 2009
July 22–26, 2009
Kona, Hawaii, USA
hkan@firmweb.com
<http://www.firmweb.com>

HAA 2009 (HSANZ ANZSBT ASTH 2009 ASM)
October 18–21, 2009
Perth, Western Australia
haa@fcconventions.com.au

**The Walter and Eliza Hall
Institute of Medical Research**
WEHI Seminars on the Web:
www.wehi.edu/seminars/

ICB Online Manuscript Submission

Online manuscript submission for Immunology and Cell Biology now available via:

<http://mc.manuscriptcentral.com/icb>

All manuscript submissions to ICB should in future be made online via this web site to speed up the reviewing and acceptance of manuscripts.

Chris Parish, Editor-in-Chief
Immunology and Cell Biology

Animal Health Laboratory Standards (SCAHLs)

Last year the Subcommittee on Animal Health Laboratory Standards (SCAHLs) conducted a survey of stakeholder awareness. The results revealed that knowledge of SCAHLs activities was not widespread.

SCAHLs is responsible to the Animal Health Committee (AHC) (a group primarily comprising Chief Veterinary Officers from all States and the Commonwealth). We seek to facilitate the networking of government, CSIRO, private and university animal health laboratories and to establish, implement and monitor professional and technical standards within these laboratories. Membership of the committee includes senior veterinary laboratory managers representing the Australian Animal Health Laboratory (AAHL); government laboratories in all Australian States, the Northern Territory and New Zealand; and representatives of key stakeholders i.e. the Australian Quarantine and Inspection Service, Animal Health Australia (AHA), National Association of Testing Authorities, Australia (NATA); university laboratories; private veterinary laboratories and the Office of the Chief Veterinary Officer.

SCAHLs meets in person twice yearly and by teleconference as required. After each in-person meeting, a newsletter is published to inform stakeholders of resolutions relevant to veterinary laboratory practice. Copies of past issues and the current newsletter can be downloaded from the SCAHLs website at www.scahls.org.au. By visiting the web site, you will also find details enabling you to be added to our email distribution list. In addition to the

newsletters, the website provides access to standard laboratory test methods and a range of documents affecting veterinary laboratory practice, e.g. the current policy on the export of diagnostic material to overseas laboratories for testing.

Our strategies are directed towards the improvement of market access for Australian and New Zealand livestock and products through the application of best practice to veterinary laboratory services. We also monitor the performance of reference laboratories for diseases of special consequence, i.e. tuberculosis, anthrax, Johne's disease and ovine footrot. A list of laboratories offering other specialised services is permanently located on the website.

We publish standard diagnostic methods and encourage their use in laboratories involved in testing for disease detection, export certification and other regulatory purposes. Animal Health Australia funds the production of these Australian and New Zealand Standard Diagnostic Protocols (ANZSDPs) and authorship is drawn from expertise available within Australia and New Zealand. The writing of ANZSDPs is ongoing and all current documents are published on the SCAHLs website together with the Australian Standard Diagnostic Tests, where these have not been superseded by ANZSDPs. All NATA accredited laboratories are encouraged to use these methods, where appropriate. In addition, we supervise the Australian National Quality Assurance Program, which provides proficiency testing for many of the serological and molecular tests involved in regulatory and export testing.

Researchers developing laboratory tests are encouraged to review the test register published on the website. The register includes contact details for those working on listed tests as well as for those tests that have been validated or accepted by SCAHLs for inclusion in ANZSDPs. It is hoped that awareness of the register will facilitate communication between researchers and prevent unnecessary duplication. For tests that will be used for export or regulatory purposes, we encourage developers to submit validation data for review by selected experts. Subject to the reviewers' satisfaction, the method may be approved by AHC and added to the ANZSDP. We have recently advised AHC that point-of-care tests relating to notifiable diseases should be subject to the same rigorous review process before they are accepted for use in Australia.

The laboratory response to the recent Equine Influenza (EI) outbreak was only possible because of the availability of skilled laboratory scientists. SCAHLs contributes to the National Animal Health Laboratory Strategy to ensure that such laboratory expertise is maintained and that training and continuing education are available. The EI outbreak also demonstrated that laboratory testing for certain exotic diseases can be devolved to laboratories other than AAHL, but that there is a need for better communications, harmonisation and standardisation. We are facilitating this process by a series of workshops with key stakeholders.

Finally, you may be interested in attending some of the technical workshops that SCAHLs conduct periodically. The last workshop resulted in publication of the Guidelines for Nucleic Acid Detection, a useful reference document available from the SCAHLs website www.scahls.org.au

We urge you to visit the SCAHLs website or discuss the activities of the committee with your local member.

