



N E W S L E T T E R

Australasian Society for Immunology Incorporated

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The Power of One Idea: The Golden Anniversary of Burnet's Clonal Selection Theory

Phil Hodgkin

October 21, 1957 saw the publication of a short two-page essay in the *Australian Journal of Science*. Modestly titled "A modification of Jerne's theory of antibody production using the concept of clonal selection", this paper triggered a series of events that had a profound impact on all of us.

The paper, written by Macfarlane Burnet, then Director of the Walter and Eliza Hall Institute (WEHI) in Melbourne, was the first enunciation of the principles of the clonal selection theory. The reason for the cautious publication in an obscure Australian journal was Burnet's reservations about the reception of his 'crazy idea' for randomisation of receptors and clonal growth. These reservations were quickly overcome,

however, as he turned the WEHI's scientific focus virtually overnight from virology to immunology. The clonal selection theory proved an immensely fertile stimulus for experiment. A young Gus Nossal, together with sabbatical visitor Joshua Lederberg, conducted the first painstaking experiments to verify the prediction of the theory that one cell would make one antibody. Soon the WEHI became a centre for the new immunology in world science, a position consolidated further by Gus Nossal ascending to the Directorship of WEHI in 1965 and expanding the facilities and laboratories.

Many Australian scientists cut their teeth on immunological problems opened up by the new theory and experiments. Giants of early immunology, Jacques Miller, Gordon

Ada, Graham Mitchell, Don Metcalf, Jon Sprent and Ian Mackay laid down foundations that provided a rich harvest for the coming generations of scientists. Thus, while immunology owes this theory by Macfarlane Burnet a great debt, Australian immunologists can also trace the richness of their community back, to a large extent, to the inspiration and head start provided by this little paper.

To celebrate and explore the impact of the clonal selection theory on Science and Society, the WEHI held a conference at the date of the publication, 50 years on.

cont. p4



Gus Nossal dazzled everyone with his stories and insights on a number of occasions. Rolf Zinkernagel broadly overviewed the important lessons from 50 years of immune discovery.

2007 Renewal
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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

Many of you will receive this newsletter just as you return from the ASI annual conference in Sydney – hopefully invigorated by the high level of science and co-operation, and inspired by the new ideas and collaborations you have struck up. Those who didn't make it to the conference will have to content themselves with the review of it in the March 2008 edition of the newsletter.

This newsletter brings reports of many successful immunology conferences, including the "Power of One Idea" conference at WEHI (p1), as well as regional meetings in New Zealand, South Australia, Western Australia, Queensland and Victoria (see Councillors' News – p9). Several of the Councillors are stepping down at the end of 2008, after the expiry of their two year terms. Please take the time to read about your new representatives and collect their contact details if you are from ACT, Victoria, or New Zealand! We also have reports from ASI Travel grant recipients, including a record seven attendees at the recent International Immunology Congress in Rio (p15). Finally, the prize for ICB Publication of the Year is announced on p20 of this issue (but you will have to wait until March 2008 to hear the winner of the newsletter prize!).

Miles P Davenport

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PRESIDENT'S COLUMN

International Immunology

The American Association of Immunologists (AAI) was founded in 1913 and was probably the first formal association of immunologists. Although all their annual meetings were held in the USA, the Association served as the avenue for immunological communications throughout the Americas. The British Society for Immunology, founded in 1956, also offered international memberships, and its annual autumn and spring meetings soon became the European regional immunology meetings. The precursor of the ASI, the Australian Society for Immunology, was announced to the world in 1967, but only really became a functioning entity in 1970. The New Zealand Society for Immunology was founded five years later, and the two merged in 1991 under the banner of the Australasian Society for Immunology.

At the International Symposium on Immunopathology at Monaco in 1965, JJ van Loghem organized an informal discussion on the pros and cons of developing an international society or federation of national societies, of immunology. The International Union of Immunological Societies (IUIS) was officially founded in Belgium on May 5, 1969, at a meeting of the representatives of ten societies (American Association of Immunologists, British Society for Immunology, Canadian Society for Immunology, Dutch Society for Immunology, Gesellschaft für Immunologie, Israel Immunological Society, Polish Society of Immunology, Scandinavian Society for Immunology, Société Française d'immunologie, Yugoslav Immunological Society). The representatives of the Australian Society for Immunology and the Swiss Society of Allergy and Immunology were unable to attend but expressed support, and their societies were also accepted as founding members of the IUIS.

The IUIS is now an umbrella organization for many of the regional and national societies of immunology throughout the world. Its objectives are:

- to organize international co-operation in immunology and to promote communication between the various branches of immunology and allied subjects;
- to encourage within each scientifically independent territory co-operation between

the Societies that represent the interests of immunology; and

- to contribute to the advancement of immunology in all its aspects.

Peter Doherty is the current President of the Union and Christopher Parish is an IUIS council member and Guna Karupiah and Nick King represent us in the assembly.

Our Society is now larger than it has ever been, with over 900 members. The numbers of international members of ASI have been growing at 24% per annum – more rapidly than those of any other region – and now constitute 5% of the Society. The ASI Executive has been considering the ways in which we can help foster immunology in the Asia-Pacific area as we would like to promote the Society internationally as a way for members of developing societies to benefit from ASI's great strength and history, as well as our annual meeting, training and mentorship programs and journal. We have always allowed international membership, although this is usually taken up by expatriates. The free access to the Nature Publishing Group's immunology journals, now offered as part of ASI membership, provides a reasonably strong incentive for other international immunologists to join. We have also recently offered, to members of both the Chinese Society of Immunology and the Russian Society of Immunology, the opportunity to attend the Annual Scientific Meeting of ASI at ASI members' rates. A number of more structured approaches have been suggested and Council is seeking input from members to help devise policies to foster international co-operation.

World Day of Immunology

On 29 April 2007, the World Day of Immunology (WDI) was launched by Stefan Kaufmann, who is the President of European Federation of Immunological Societies and Vice-President of the IUIS. ASI sponsored a range of activities, including public lectures, interactive displays, development of teaching

Cont. p6



Peter Doherty and Gordon Ada discuss old times

The generational lineage was clearly illustrated when Ian Mackay chaired the autoimmunity session that included son and daughter-in-law, Charles and Fabienne



This conference, called “The power of one idea: The golden anniversary of Burnet’s clonal selection theory”, featured Nobel laureates Peter Doherty and Rolf Zinkernagel; doyens of early immunology Gus Nossal, Frank Fenner, Gordon Ada, Jacques Miller and Ian Mackay; international guests Michael Neuberger, Tim Mosmann and Polly Matzinger; and local immunologists Alan Baxter, Suzanne Cory, Wolfgang Weninger, Rob Brink, Stephen Nutt, Ken Shortman David Tarlinton, Jon Sprent, Jim McCluskey, Bill Heath, Chris Goodnow, Andreas Strasser, Chris Parish, Len Harrison, Fabienne Mackay, Charles Mackay, Tony Basten, Michael Good, Ian Frazer and Anne Kelso.

As part of the organizing committee, I can say that few conferences were as much fun to put in place. First, the paper itself is so short – all of the principles of immunity are spelled out in a single page – that we structured our program to follow the logical development of the paper, with each session introduced by a direct quote. As many of the participants in the early history are still living around Australia, it was a great opportunity to gather them together to talk about their role in the unfolding story. We therefore interleaved talks from early pioneers with cutting edge research talks to highlight the history and subsequent advances.

Many of our ‘modern’ speakers also took the opportunity to trace a debt to Burnet or provide a story from their own memory banks. From all these reminiscences it was clear to us that Burnet was an extraordinarily gifted ‘generalist’ who had theories and opinions on a breathtaking range of topics and was generous in

sharing his ideas to help the researchers around him. He was also something of a nationalist and deliberately remained in Australia to help the development of science and medical research. He was not without flaws though, and a picture of his socially awkward and occasionally authoritarian personality emerged. We also heard that Burnet had a weakness in open and sharp debate and occasionally stridently supported causes that proved narrow or even wrong in light of history. His infamous denigration of molecular biology was brought up by a number of speakers. Rather than diminish his reputation, these observations only served to highlight for the delegates that science is a human activity and extraordinary creativity and insight is not bestowed on any particular personality type.

The Public Forum

To bring this story to a general audience, we also held a forum hosted by ABC Radio National’s Phillip Adams and invited the general public to come along. We advertised widely and were relieved to fill our 600 person auditorium at the University of Melbourne – the number boosted by high school science teachers and students. Those attending were treated to a feast of history and modern commentary from true giants who dazzled us with their erudition and knowledge. Participants were interviewed in two segments. First Frank Fenner, Gordon Ada and Gus Nossal explored the early development of science and the impact of the paper and theory. Among many highlights, Frank Fenner memorably recalled

how Burnet asked him to ‘house-sit’ for nine months in 1948 while Burnet and his wife went on sabbatical in England. House-sitting included looking after the three children! Gus Nossal described his ‘one cell-one antibody’ experiments and the impact of Lederberg on his career. Gordon Ada discussed his move to the John Curtin School in Canberra where he merged virology and immunology and helped set in train events that would lead to the famous MHC restriction experiments of Doherty and Zinkernagel and the 1996 Nobel prize.

Later we placed on stage “three Australians of the year: Gus Nossal, Peter Doherty and Ian Frazer, together with a popular “champion of science” Barry Jones to look at the later development of science and impact of immunology on our modern world. We enjoyed stories of the importance of immunology to world health, of Burnet the extraordinary man, of the importance of a scientific outlook, and personal views on the future of science. It was a very memorable

Barry Jones and Phillip Adams listen to Peter Doherty and Ian Frazer in the public forum



night and there has been a great deal of positive feedback for this event.

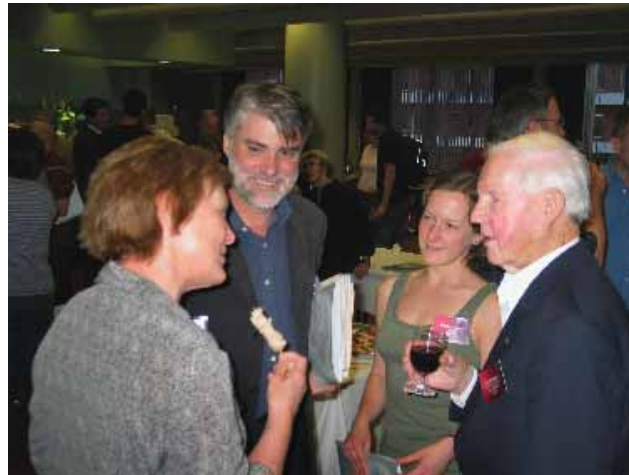
Clonal Selection: The Video

WEHI is the home of scientific animator Drew Berry who has won numerous awards for his exquisite animations of DNA replication and intracellular processes in cell biology. We asked Drew to develop a video that would bring Clonal Selection to life. He hired a young artist, Etsuko Uno, to work on the project and the resulting movie, "Fighting infection by clonal selection", was a big hit of the conference. The movie contains stunning images of lymphocytes and lymph nodes each of which are themselves works of art. Drew, Etsuko and WEHI have made this movie generally available, providing the opportunity for all of us to use these images to richly illustrate the concept of clonal selection to students or a general audience in our presentations. Everyone who came to the meeting and the public forum received a copy of the DVD. If you weren't lucky enough to receive one, the movie is downloadable from the WEHI website.

Conclusion

At the end of the meeting we were all left with a satisfying feeling of community and continuity in Australian science and a strong sense of the debt we owe at many levels to a great and original thinker.

Those interested in more of this story are directed to Burnet's autobiography "Changing patterns", and the outstanding biography "Seeds of Time" by Christopher Sexton. The movie "Fighting infection by Clonal Selection" is available from WEHI-TV which can be accessed through www.wehi.edu.au. Papers from many of the speakers will appear in the January and February issues of *Immunology and Cell Biology*.



Frank Fenner was astonishingly fit at 93



The latest generation of immunologists enjoyed tracing their scientific lineage back to Burnet and other pioneers



Tim Mosmann explains his views on the expanding stable of Th cells. Just before arriving in Melbourne he learned he was awarded the 2008 Paul Ehrlich prize for contributions to immunology

Contributions sought for the ASI Newsletter

You could win \$100 !!

Deadline for the next issue :

1st February 2008

Please email your contributions to the Secretariat by the above date.

asi@21century.com.au

President's Column, cont. from p3

materials and the creation of a dedicated website. All the events were a great success, and indicated a public enthusiasm for our work that few of us were aware of. In 2008, the Society will again support WDI – April 29 will be a Tuesday – and we aim to generate much broader media coverage. Brigitte Seega, the producer of Radio National's *Ockham's Razor* and *Health Report* programs, has specifically asked to be kept up to date with our plans for the day, as they develop. ASI's contribution will be co-ordinated by Claudine Bonder (Claudine.Bonder@imvs.sa.gov.au), and each of the Regional Councillors will either initiate and/or co-ordinate local activities, or else identify suitable members to do that for them. If you have any ideas of how we can bring immunology to the public, please contact Claudine or your Regional representative:

ACT: Dr Gerard Hoyne

(gerard.hoyne@anu.edu.au)

Qld: Dr Chris Schmidt

(Chris.Schmidt@qimr.edu.au)

NSW: Dr Bernadette Saunders

(b.saunders@centenary.usyd.edu.au)

NZ: Dr Jo Kirman

(jkirman@malaghan.org.nz)

SA/NT: Dr Claudine Bonder

(claudine.bonder@imvs.sa.gov.au)

Vic/Tas: Steve Turner

(sjturn@unimelb.edu.au)

WA: Dr Delia Nelson

(delia.nelson@curtin.edu.au)

It is well worth remembering the contact details for your Regional Councillor, as they will usually be your first point of contact with the Society, whether applying for a travel award, promoting a meeting or seeking support for a new idea.

IUIS bid

Another component of our international strategy is to attempt to bring the IUIS International Congress of Immunology to Australia. The congress is held every three years; it was first held in Washington in 1971, in Rio this year, and it will be held in Kobe, Japan in 2010 and Rome, Italy in 2013. With widespread support from the major Research Institutes and with offers of significant financial backing from several State Governments,

Council has decided to bid to hold the Congress in Australia in 2016. We have contracted ASN events to act as secretariat in the preparation of the bid, and have identified the conference venues in Melbourne, Sydney and Brisbane as the only ones in Australia likely to be able to cope with the estimated numbers of registrants. These venues have developed draft proposals, based on guidelines prepared by ASN, and these have been considered by a steering committee. At this stage, it is likely that we will progress to site inspections of the facilities in Melbourne and Brisbane early next year, with a view to advising Council of a preferred venue at the mid-year Council meeting.

Over the next few years, there will be substantial opportunities for members who are interested in being involved in preparing the bid to IUIS, and if successful, in planning the Congress. This is a great opportunity for members to develop and cement an international reputation in the field.

Annual Scientific Meeting

As I write, the 37th Annual Scientific Meeting of the ASI, to be held in Manly, Sydney, is only a few weeks away. By the time you read this, however, it will all be over. I am confident that you enjoyed yourself immensely, but no doubt wish I hadn't taken my bloody camera to the conference dinner again. The upside (or maybe it is another downside) is that you can view the pictures, as well as those from all the other ASI Dinners since 2003, on the Comparative Genomics Centre Web Page: www.jcu.edu.au/CGC. The 38th meeting will be held at the National Convention Centre in Canberra from 7-11 December, 2008. As always, it will provide the optimum opportunity for you to showcase your work before potential employers and grant and fellowship reviewers. Not an opportunity to be turned down lightly. Students and postdoctoral fellows should remember that to be eligible for some of the awards on offer at the meeting, they must renew their membership before 1 April 2008.



Other Opportunities

If you would like to promote a conference or meeting relevant to Society members, please remember the events calendar in the back cover of *Immunology and Cell Biology* and contact me with the relevant details.

As always, the Council is keen to hear from members regarding ways in which the Society can help foster the interests of members. Please do not hesitate to contact myself, or your Regional Councillor, if there is anything we can do to help.

Alan G Baxter

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!**

HONORARY SECRETARY'S NEWS

Student Travel Bursaries

The ASI has a strong commitment to support its youngest members, and offers student bursaries to cover the costs of registration and airfares to attend the Annual Scientific Meeting. This year we have tried a new system to award these bursaries. In previous years, each region was allocated a number bursaries proportional to the number of students in that region, and it was left to each branch to organise how to judge the applications. This system had some advantages, as it allowed each branch to use the bursaries as an incentive to promote student attendance to local events. For example, the Immunology Group of Victoria awarded their bursaries to the best student presentations at their annual retreat. However, a problem with this system was that the proportion between the number of applications and the number of bursaries allocated to each branch sometimes varied widely, giving the impression that it was "harder" to obtain a bursary in some regions than in others.

To avoid this problem, this year the ASI Council decided to try a new system: all applications have been evaluated and selected from a single pool by a committee set-up by the organisers of the annual meeting. Naturally, this does not preclude each branch from using their local funds to offer extra bursaries, but it provides an even playing ground to all the students who apply for the bursaries offered by the Council.

This new system has represented an extra task for the organisers of the annual meeting which they have nevertheless accepted with enthusiasm. On behalf of the Council, I would like to thank all of them, in particular Bernadette Saunders, for implementing this new system for the first time. I would also like to invite all members to discuss these changes locally and provide feedback through their local Councillors. One thing we can already conclude is that, regardless of the evaluation system used, the quality of applications is consistently high, and the awards well deserved. It is gratifying to see

that the student base of the ASI maintains a high standard; this augurs well for the future of our Society and discipline.

The recipients of Student bursaries to attend the 37th Annual Meeting in Sydney are shown below.

Changes to Council

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

Past-President: Phil Hodgkin
 ACT Councillor: Guna Karupiah
 NZ Councillor: John Fraser
 Vic/Tas Councillor: Phil Darcy

We thank you for your contribution to ASI, and hope we will be able to continue relying on your expertise and advice as valued members of the Society.

The following members have been elected to Council:

Vice-President: Miles Davenport
 ACT Councillor: Gerard Hoyne
 NZ Councillor: Jo Kirman
 Vic/Tas Councillor: Steve Turner

We look forward to working together with you for the benefit of our membership.

I look forward to see you in Sydney!

Jose A. Villadangos

Name	Organisation	Region	\$ Amount
Stephanie Day	Australian National University	ACT	532
Haley Ataera	Malaghan Institute	NZ	934
Nina Dickgreber	Malaghan Institute	NZ	934
Diane Sika-Paotonu	Malaghan Institute	NZ	934
Simon Apte	Qld Institute of Medical Research	Qld	535
Tania Crough	Qld Institute of Medical Research	Qld	535
Rachel De Kluyver	University of Queensland	Qld	535
Erin Curry	Hanson Institute	SA/NT	580
Cara Fraser	Hanson Institute	SA/NT	580
Violet Mukaro	Adelaide University	SA/NT	580
David Aridi	Monash University	Vic/Tas	564
Ella Bridie Day	University of Melbourne	Vic/Tas	564
Heather McGee	Uni Tasmania	Vic/Tas	588
Adele Mount	The Walter & Eliza Hall Institute	Vic/Tas	564
Anna Proietto	The Walter & Eliza Hall Institute	Vic/Tas	564
Louise Young	The Walter & Eliza Hall Institute	Vic/Tas	564
Jacqueline McGlade	University of Western Australia	WA	860
Holly Chinnery	University of Western Australia	WA	860
Jelena Kezic	University of Western Australia	WA	860
Jennifer Burchell	Telethon Institute	WA	860
Total			\$12,415

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

Fellowship awarded to ASI Member

The Sylvia and Charles Viertel Charitable Foundation awarded two Senior Medical Research Fellowships in October, to Gabrielle Belz (The Walter and Eliza Hall Institute of Medical Research) and Paul Ekert (Murdoch Children's Research Institute). The Fellowship, valued at \$195,000 per annum, is intended to support outstanding researchers with recognised postdoctoral achievements seeking to establish a research career in Australia and undertake research in an Australian academic institution.

More information about the Senior Medical Research Fellowships and the Viertel Foundation's Clinical Investigatorships, including a list of previous recipients, can be found at: <http://www.anz.com/aus/fin/Trustees/guNamed.asp#Viertel>



*ASI Member Gabrielle Belz,
recipient of Sylvia and Charles
Viertel Charitable Foundation
Senior Medical Research Fellowship*

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.

Research positions available

Vaxine Pty Ltd, a rapidly growing biotech company based in Adelaide, invites applications from interested scientists for research positions within the company. Vaxine's focus is on vaccine development across many product areas including hepatitis B, influenza, shigella, malaria, allergy, cancer and many more.

We are looking for motivated scientists at PhD, postdoctoral or senior researcher level to join our growing research team. Researchers with experience in human immunology, vaccine clinical trials, animal studies, GMP vaccine manufacturing or any related topic are particularly encouraged to apply.

Vaxine welcomes unsolicited applications from individuals with appropriate scientific background at any time.

For further information contact:

Prof. Nikolai Petrovsky (nikolai.petrovsky@flinders.edu.au)

Dr Susanne Heinzl (susanne.heinzl@fmc.sa.gov.au)

Dr Bruce Lyons (bruce.lyons@fmc.sa.gov.au)

For expression of interest submit CV to:

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ASI Councillors' News

S.A./N.T. News

We have had a very exciting past few months with the ASI Sponsored Speaker Prof Hans Schreiber coming into Adelaide and spending some of his precious time at various institutes throughout the state, sharing his knowledge on tumour immunology as well as his role as Editor for *Journal of Experimental Medicine*. Hans and his wife were an absolute delight to meet and his breadth of knowledge was a great source to tap into. We now look forward to the next speakers as they travel through the country and thanks to Alejandro Lopez for co-ordinating their plans.

A massive congratulations to the following students, their supervisors and their institutions who have won travel bursaries to attend the Annual ASI Conference in Sydney: Erin Curry (Hanson Institute), Cara Fraser (Hanson Institute) and Violet Mukaro (University of Adelaide).

AIR 2007

The Third Adelaide Immunology Retreat (AIR) 2007 was held at Adare 'Castle' in Victor Harbour, August 31 and September 1, 2007.

AIR was organized by the local ASI state branch and was designed for students as well as young and established scientists to get to know not only each other but also the science going on in Adelaide. Like the last two years, we again had a mixture of great science and social activities with more delegates than ever before.

We continued our tradition of inviting a well accomplished scientist from South Australia as well as one from interstate to join us at the retreat. We were absolutely delighted

that Dr Bruce Lyons from Vaxine Pty Ltd in Adelaide agreed to be our 'local' speaker. Likewise, we were absolutely delighted that ASI Past-President Prof. Anne Kelso could join us from the WHO for Influenza in Melbourne. They could not be a more lovely, humble and easy-going couple of guests and Bruce and Anne's generosity of their time exemplifies what wonderful role models they are for us all.

Day 1: The Friday morning started early in the wonderful setting of Adare Castle with the captivating Dr Bruce Lyons openly describing his scientific journey as one of highs and lows but filled with enough of the good, the bad, the ugly and serendipity to keep him coming back for more! His depth of immunological knowledge, his passion for the unexpected, as well as his overall energy and enthusiasm was just one of the many great things about the weekend. The rest of the morning saw great delegate talks from different corners of Adelaide before we went out exploring. We had a wine and cheese tasting at Scotts Victor Harbour Winery where we had a wonderful opportunity to meet and talk to the other delegates for a couple of hours. Following the wine tasting we went across to Granite Island to meet the gorgeous penguins that inhabit the island and the local waters. We had a guided tour around their nests and watched as the young pups waited for their parents to come home with the food. A nice long walk back to Adare Castle for dinner, some table tennis, billiards, footy and more wine.

Day 2 started off with an eagerly awaited talk by Anne Kelso who shared with us her wonderful career journey. Anne's talk was very inspiring and showed us that there are so many opportunities with our training, you

never know where you are going to end up. Following Anne we had more great talks from the student delegates. This year we had an amazing mix of Honours students, Masters students, PhD students, RAs, post-docs and lab heads at the retreat and the quality of presentations was

outstanding. Judging was impossible with the amazing quality of the presentations but CONGRATULATIONS go to Leigh Guerin for best PhD student presentation (winning flights and early rego for ASI National Conference in Sydney 2007), equal runners up for best PhD student presentation go to Dominik Kaczorowski, Erin Curry and Jennifer Young (all winning \$50 vouchers). Finally, David Simon Davis won best Honours/Masters presentation (winning a \$50 voucher).

Both invited speakers were fantastic in their mixing and mingling with the students throughout the event and were more than happy to share their advice and knowledge. We were a very sociable group, energized by each other's work, sharing our experiences and advice and really just getting to know each other and enjoying each other's company. We ended the retreat as we started, with fun and laughter but left with a few more friends. We believe that this is a great way to promote science made in SA to some of our very best.

It is an absolute honour to run these events but it would not be at all possible without financial support. For AIR 2007 we would like to sincerely thank Jomar, Miltenyi Biotech, Adalab Scientific, Perkin Elmer, Qiagen, Promega, Invitrogen, Geneworks and John Morris Scientific. As important, a big thank you to the organising committee for helping pull it all together: Jennifer Young, Erin Young, Cara Fraser, Damon Tumes, Paul Coleman, Dominik Kaczorowski, Kate Pilkington, Susanne Heinzl and Nick Gorgani, and we are already looking forward to AIR 2008!

*Claudine Bonder
SA/NT Councillor*



Michele Grimaldeston & committee member Susanne Heinzl

W.A. News

Local lunchtime ASI Meetings

During 2007 eight lunchtime ASI seminars were held featuring local, national and international speakers. We continued to offer ASI-funded lunches hoping to encourage regular seminar attendance, and to enable local members to interact informally. The format varied from an individual speaker to two or three speakers during the hour-long session.

This year's speakers were:

28th March, Professor Paul McMenamin (School of Anatomy & Human Biology, UWA): 'The role of macrophages & dendritic cells in corneal inflammation: re-examining paradigms using genetically engineered mice.'

5th April, Dr. Chris Andoniou (Lions Eye Institute): 'Cytomegalovirus interferes with Bax function to promote efficient replication' and Dr Matthew Wikstrom (Telethon ICHR): 'A fantastic voyage: tracking the immunological fate of inhaled antigen.'

2nd May, Dr. Martyn French (Clinical Immunol & Immunogenetics, RPH, PathWest and Surgery & Pathology, UWA): 'Disorders of immune reconstitution in HIV patients responding to antiretroviral therapy.'

6th June, Dr Shelley Gorman (Telethon ICHR): 'Does vitamin D production in the skin of UVB-irradiated mice induce T regulatory cells?'; Paula Cunningham (Telethon ICHR): 'Allergen mediated desensitisation for mucosally-induced respiratory allergy'; and Dr Matthew Brown (Department of Medicine, UWA): 'The immune benefit of cancer surgery: lessons from sinecomitant immunity'.

4th July, Dr Ruth Ganss (WAIMR): In vivo Homing of 'Angio-Immuno' Agents Promotes Tumor Rejection.'

8th August, Professor Susan Prescott (Telethon ICHR/PMH): 'Allergy takes its toll: the role of toll-like receptors in immune development.'

20th August, Professor Hans Schreiber (University of Chicago): 'Cross-Presentation and Destruction of the Tumor Microenvironment.'

27th September, Dr Phil Hodgkin (WEHI): 'Evidence for a stochastic model of lymphocyte clonal expansion and survival.'

The WA-ASI Early Career Workshop

The major branch activity held by WA-ASI for 2007 was the ASI early career workshop held on Friday, 28th September at the Esplanade Hotel in Fremantle. The aim of this workshop was to provide a forum for PhD students and early career scientists to present their work in an informal setting, and it was modeled on our previous workshop held in 2005. The workshop comprised talks by the invited speakers and by registrants (selected submitted abstracts), as well as prizes, 'fun activities' (pass the parcel and an immunology quiz), morning and afternoon tea, lunch, a ghost tour and social drinks at Fremantle Prison. In order to encourage the participation of as many members as possible, the workshop was free to financial members of ASI. Costs were covered by company and institutional sponsorship and WA-ASI. Myself and the organizing committee would like to thank BD, Fisher Biotec, Jomar Bioscience, Australian Biosearch, Curtin University, Murdoch University and the Telethon Institute for Child Health Research for their generous financial assistance.

Prof Jonathon Sprent (Garvan Institute) and Dr Phillip Hodgkin (WEHI) participated in the workshop as guests/mentors of WA-ASI. Both invited mentors gave a talk about their research and offered insights into their career pathway; the registrants thoroughly enjoyed and appreciated the mentors' contributions to this meeting. Phil and Jonathon also participated in a career panel that included Prue Hart (Telethon Institute for Child Health Research), Mariapia Degli-Esposti (Lions Eye Institute), Kathleen Davern (Monoclonal Antibody Facility, Western Australian Institute for Medical Research) and Paul Watts (Phylogica) which proved to be a very popular activity. Myself and the organizing committee would like to thank all of the career panel members for their involvement.

Over 46 local immunologists attended the inaugural workshop and feedback from participants was very positive. Given the success of this year's and the 2005 events, we will endeavor to make the workshop a biannual event (finances allowing). I would like to thank the committee members (Chris Andoniou, Tony Scalzo, Matthew Wikstrom, Phil Stumbles, Steve Broomfield Jennifer

Burchell and Andrew Currie) who were invaluable in helping to organize the event.

General Information

The WA branch currently has 57 financial members and this may increase in 2008 with new members registered during the WA early career workshop.

*Dr Delia Nelson
WA Councillor*

Queensland News

This year's Eighth Annual 'Brisbane Immunology Group' retreat was held over August 23/24 at the rather ritzy Ramada Pelican Waters in Caloundra. This meeting is sponsored by ASI, and always features a strong complement of interstate speakers, addressing a wide variety of topics. The quality of this meeting is greatly enhanced by bringing together a truly representative section of Queensland immunologists. The 120 attendees, including 50 ASI members, heard this year's 'Jonathan Sprent Orator' Jim McCluskey (Uni. Melbourne) present profound insights into the way the TCR interacts with peptide/MHC at the molecular level. Dale Godfrey gave a masterful overview of the NKT field, with occasional helpful interjections from ASI president Alan Baxter (JCU, Townsville). Lucid presentations of recent data came from two speakers from WEHI: Gabrielle Belz detailed novel avenues for naïve killer T cells to respond to viral infections, and Stephen Nutt identified Blimp-1 as an essential regulator of T cell homeostasis.

We were very lucky this year to attract Prof. Hans Schreiber (University of Chicago) to deliver the "Postgraduate Plenary Lecture" on the topic 'Cross-Presentation and Tumor Destruction'. This was the last leg of his ASI-sponsored tour of Australia, with QIMR sponsoring his international flights. As expected, Hans was outspoken, provocative, and thought provoking. He and Dale were very generous in giving considerable time to judging the best poster. Unable to narrow the field further, the ASI-sponsored prize was shared this year by Kate Shroder (Institute for Molecular Bioscience, UQ) and Margaret Jordan (JCU).

BIG also provides a venue to hear about the best in local immunological research, with an emphasis on students and early career

researchers. The ASI offers a prize to the best speaker in the Postgraduate Session, won this year by Kate Markey (QIMR).

With the outstanding assistance of Alejandro Lopez and Adriana Baz (QIMR), ASI Queensland sponsored a number of interstate immunologists to visit Queensland over the last few months: Stephen Turner (Uni. Melbourne, Sept 3), Frank Carbone (Uni. Melbourne, Sept 10/11), Fabienne Mackay (Garvan Institute, Sept 24), and Ruth Ganss (Western Australian Institute for Medical Research, Nov 5) very generously gave their time to talk to researchers at the QIMR, Diamantina Research Institute, and JCU.

Finally, congratulations to the Queensland winners of ASI student bursaries to attend the ASI meeting in Sydney: Tania Crough, Simon Apte (both QIMR) and Rachel De Kluyver (Diamantina). See you all there!

*Chris Schmidt
Queensland Councillor*

N.Z. News

Following on from the successful ASI Auckland meeting in December 2006, Immunology has had a relatively quiet year in New Zealand.

Ron Germain visited both Auckland and Wellington in April and impressed everyone with the breadth of his knowledge and ability to present a compelling and seminar complete with reference to his five most recent papers from either *Nature*, *Nature Immunology* or *Immunity*. In Auckland his prime target was in fact not an immunologist, but a bioengineer, Prof. Peter Hunter, who works in the field of biological modelling. In mid-October, Auckland was indeed fortunate to have a visit from Prof. Jack Strominger, Harvard University. A simple reflection of Jack's extraordinary career over the past 60 years gives some sobering food for thought. He has amassed over 1000 publications and more than 300 postdocs and graduate students have been through his lab, many are now leading lights in around the world. Jack is now 82 but still runs a Harvard laboratory consisting of 10 people

Our national immunology meeting has become the 2-day Immune meeting which is conveniently held in Wellington at the Malaghan Institute and is well organised by Jo Kirman, the new NZ representative

on the ASI Council. Immune attracts about 60 people from around the country and is a great opportunity not only to showcase recent research but also to socialise and develop collaborations. Invited speakers to Immune this year included Jose Villandagos, Norbert Keinzle and Dan Cua who gave a fantastic presentation on IL-17 regulation. My time as ASI-NZ Councillor ends and I willingly hand over the reigns to Jo Kirman who I am sure will represent NZ well.

*John Fraser
NZ Councillor*

Introduction – Jo Kirman

Many thanks to the outgoing NZ Councillor, Prof John Fraser, for his fantastic job as host of ASI 2006, which was a roaring success. While his are big shoes to fill, I am very enthusiastic to continue John's efforts towards promoting immunology in NZ.

I am currently the Infectious Diseases Group leader at the Malaghan Institute in Wellington, and my primary research focus is the induction and maintenance of Th1 memory immunity to facilitate the rational design of vaccines for Tuberculosis. I returned to NZ in 2002 after completing my postdoctoral training under Bob Seder at the Laboratory of Clinical Investigation and the Vaccine Research Center, at the National Institutes of Health, USA.

To combat the isolation of working in a small island, it is important to promote collaboration amongst NZ and Australasian immunologists. With the support of the University of Otago, Malaghan Institute and ASI, I have organised the NZ Immune 2006 and 2007 meetings, which have provided a well-attended forum for networking amongst NZ immunologists. My goals as NZ Councillor are: to promote the activities of the ASI in NZ, increase attendance and student participation at ASI meetings, as well as encouraging trans-Tasman collaboration.



New NZ Councillor, Jo Kirman

A.C.T. News

2007 has been another exciting year for the ACT Branch. We hosted the visit of Dr Ron Germain as an ASI visiting speaker early in the year. The next major event was a public lecture delivered by Prof. Chris Parish to commemorate the World Day of Immunology. About 80 members of the public and the ASI attended this lecture and celebration of Immunology – it was a big success given that there were two other public lectures at the ANU on that day. As in previous years, the ACT Branch hosted both national and international speakers. Dr Gabrielle Belz (WEHI) visited us on July 25 as our invited speaker, followed by Prof. Hans Schreiber (University of Chicago) who visited on August 14. In September and October, several members of the ACT Branch attended the International Congress of Immunology in Rio de Janeiro, the Burnet Power of One Idea Conference in Melbourne and the 12th Frank and Bobbie Fenner Conference (organised by Chris Parish) to celebrate the life, achievements, and retirement of Emeritus Professor Frank Fenner who will leave The John Curtin School at the end of the year. Professor Fenner turns 93 this year.

As the 2008 annual scientific meeting of the Society will be in Canberra, we formed an organizing committee early this year. Committee members are: Guna Karupiah (Chair), Christopher Parish, Christopher Goodnow, Geeta Chaudhri, Edward Bertram, Carola Vinuesa, Hilary Warren, Gerard Hoyne, David Tschärke and Matthew Cook. We have started working with the Conference organizer Mike Pickford, ASN, and have booked the National Convention Centre as the venue for the 2008 Meeting. We canvassed various options and were keen on keeping the meeting on Campus, however ANU was unable to commit to our dates or provide a quote. The National Convention Centre provided the best quote, has been recently renovated and is centrally located. The dates for the meeting have been set for 7-11 December and the theme for the conference will be "Immunological Challenges of the 21st Century".

We are pleased to advise that as of November 2007, 11 international

speakers have confirmed their attendance next year. They are Shizuo Akira (Osaka University), Mark Davis (Stanford University), Stephen Galli (Stanford University), Alessandro Moretta (University of Genova), Pamela Ohashi (Ontario Cancer Institute), Dale Umetsu (Harvard Medical School), Kathryn Wood (University of Oxford), David Woodland (Trudeau Institute), Marc Jenkins (University of Minnesota), Dario Vignali (St Jude Children's Research Hospital) and Hoosen "Jerry" Coovadia (University of KwaZulu-Natal). ICB has again offered to finance one international speaker.

As the postgraduate Student Representative is selected from the state in which the next Scientific Meeting is to be held, the ACT branch has put forward Ivan Poon, JCSMR for this position in 2008.

This is my last report as ACT Councillor and Gerard Hoyne will be taking over next year. I would like to take this opportunity to thank Ed Bertram (Treasurer, ACT Branch) and Carola Vinuesa who have worked hard to make this Branch tick!

The ACT Branch invites all members to attend next year's conference in Canberra.

*Guna Karupiah
ACT Councillor*

Introduction – Gerard F Hoyne

I completed my BSc and PhD at the University of Western Australia and then worked in the UK during my postdoctoral period with stints at the Department of Biology at the Imperial College of Science, Technology and Medicine as well as the MRC Centre for Inflammation Research at the University of Edinburgh. Since returning to Australia five years ago I have worked at the John Curtin School of Medical Research where I have been a group leader and program leader of an ENU mutagenesis screen using a sensitized transgenic model to identify genes that protect against the development of type 1 diabetes. My research work on diabetes is funded through a Program Grant from the JDRF in New York awarded to Prof Chris Goodnow and myself and I am a co-investigator on a newly funded



New ACT Councillor, Gerard Hoyne

NH&MRC-JDRF Special Program Grant that was awarded to Prof. Chris Parish, Dr Charmaine Simeonovic, Craig Freeman and myself to investigate the role of heparanase in the regulation of autoimmune attack on pancreatic islets.

The next 12 months are going to be busy with the annual meeting for ASI to be held in Canberra in December. The planning and organization for the meeting is already well advanced and the first notices for the meeting have recently been released.

I hope in my tenure as ACT Councillor that I can continue to foster the interests in immunology in Canberra and I look forward to your support.

Victorian News



We are all looking forward to the ASI Annual Scientific Meeting to be held at Manly Pacific Sydney from 2-6 December. The NSW committee have done a tremendous job assembling the list of speakers. Details of the final program can be found on the ASI website <http://www.asi2007.org.au/>

The annual IgV meeting at Beechworth was again a well organised event highlighted by many great talks from invited speakers and students. I would like to thank the IgV committee for their hard work and ensuring the successful running of this meeting. I would also like to pass on my congratulations to those students who were awarded various prizes at the meeting.

The careers night held in October was another successful event and was well attended. I

would like to sincerely thank Phil Marley, Grace Chan and Maree Faux who freely donated their time to speak. All speakers gave tremendous insight on following a career path in either academia or industry, including pitfalls they have encountered along the way. I am sure the members who attended these talks would have gained valuable information.

Unfortunately this will be my last correspondence as the Victorian/Tasmanian State Councillor. I have thoroughly enjoyed being the ASI State Councillor over the past two years. In particular, I have enjoyed working closely with other members of the ASI Council and our local IgV committee who all bring tremendous enthusiasm and commitment to the Society. The current state of immunology in Australia is as strong as ever and I am sure new members elected to the Council will continue to work hard to maintain this.

Finally I would like to pass on my congratulations to Steve Turner who will serve as your next state representative from 2008-2009. Steve obtained his PhD in Immunology at Monash University under the guidance of Professor Frank Carbone and worked as a postdoc in Melbourne with Dr Janet Ruby and then with Peter Doherty in Memphis, TN. He returned to Melbourne in 2002 and is currently a Senior Lecturer and Pfizer Senior Research Fellow in the Department of Microbiology and Immunology at the University of Melbourne. Steve's research interests concern factors that influence the induction of effective cytotoxic T cell responses to virus infection. As new State Councillor, Steve will ensure that the interests of both Victorian and Tasmanian members will continue to be represented at the national level. His contact email address is sjturn@unimelb.edu.au

*Phillip Darcy
State Councillor*



*Steve Turner,
new Vic/Tas
Councillor*

Travel Award Conference Reports

FASEB Summer Research Conference, Tucson, Arizona, USA

Kylie Greig, The Walter and Eliza Hall Institute of Medical Research

In July I attended the FASEB Summer Research Conference on Lymphocytes and the Immune System with the support of an ASI travel award. The conference was held in Tucson, Arizona – a fascinating place full of cactuses, roadrunners and coyotes. We had the rather surreal experience of staying at a golf course in the middle of the desert, baking in the summer heat. The locals tried to spook us with tales of scorpions, mountain lions and rattlesnakes, which was funny until my supervisor, Steve Nutt, had a close encounter with a salivating brown bear and got to test his flight response.

The conference itself covered a great range of topics in immunology, from the development of lymphocytes right through to their activation, migration and role in human health. As my own interest is in lymphocyte development, I thoroughly enjoyed talks from Cynthia Guidos and Rudolf Grosschedl, speaking about Notch signalling and Ebf proteins respectively. Other talks raised my awareness of different areas of immunology. Two talks focused on the role of ribosomal proteins in lymphocytes: David Wiest presented data suggesting that Rpl22 may influence $\alpha\beta$ T cell development, possibly by influencing p53 expression, while Michael Lenardo showed that Rps3 also has an extraribosomal role as part of the NF κ B DNA binding complex. I found these talks fascinating as they suggest that proteins that seemingly play a universal role in cells – translation – may actually have quite specific roles as well.

There were several talks on immunoglobulin gene rearrangement, a complex process requiring changes in chromatin structure and repositioning of the loci within the nucleus. I found these talks most interesting when they shed light on broader issues of gene regulation. For instance, Harinder Singh showed how inducibly repositioning a gene to the inner nuclear membrane could lead to gene repression, and asked whether proteins that are involved in positioning the loci may play a role in lineage commitment. A trend in several of the talks was to use advances in microscopy to re-visit older issues in immunology, and in some cases provide novel insights. Paul Kubers examined leukocyte trafficking in inflamed tissue, while Marc Bajenoff from Ron Germain's lab looked at T cell migration within lymph nodes. Steve Reiner showed evidence that T cells may undergo asymmetric cell division following activation by a dendritic cell, distributing certain proteins unequally between the two daughter cells. It will be interesting to see whether these daughter cells do indeed adopt different fates, and if so whether the unequally partitioned proteins that lead to these different fates can be identified.

Collectively, the talks at the conference broadened my knowledge of immunology. I enjoyed meeting the scientists, students and postdocs, and found it helpful to discuss my work with them at the poster sessions.

After the FASEB meeting, I visited Klaus Rajewsky's lab in Boston where I gave a

talk and met with several of the lab members. I work on the role of c-myc in B cell development, and Klaus' lab has identified a microRNA that is postulated to regulate c-myc expression. It was exciting to share our results and discuss our ideas of how c-myc might regulate cell fate in the immune system. I found it a very rewarding experience and I'm sure that we will stay in touch and continue to share our data as it develops. Overall, the trip was a fantastic way of increasing my knowledge of immunology, sparking my enthusiasm for research and establishing connections that will help me in my career. It has also increased my respect for the wildlife of Arizona, and I'm glad that I still have a supervisor!

*More Travel Award reports
over the page*

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.



Cancer Research Institute's 15th Annual Symposium and National Cancer Institute's Cancer & Inflammation meeting

Michele Teng, Peter MacCallum Cancer Centre

My second trip to the USA (land of good bagels and bad coffee!) started with attending the Cancer Research Institute's 15th annual symposium series entitled 'Cancer and HIV vaccines: Shared lessons' in New York City. This conference was specifically intended to bring cancer and HIV vaccine researchers together to share data and discuss strategies to move both fields forward. The meeting was opened by the eminent Professor Lloyd Old, considered the father of tumour immunology, and HIV vaccine expert Giuseppe Pantaleo. Twenty-three plenary lectures were presented during the symposium covering topics such as vaccines for both cancer and HIV, retroviral and lentiviral vectors, Toll-like receptor ligands, and therapeutic HPV vaccines, effects of chronic viral infection on the immune system, seromics, and immune checkpoint blockade. Invited speakers at this conference included Phil Greenberg, Rafi Amed and Antonio Lanzavecchia to name a few. The highlight talks for me were given by Jim Allison and Alexander (Sasha) Rudensky. Jim spoke about the impact of the antibody anti-CTLA-4 in the therapy of cancer and showed some amazing scans of patients with large tumour masses melting away following treatment with anti-CTLA-4. These results demonstrated the inherent power of the immune system to target tumours if one can correctly and effectively remove the 'brakes'. Sasha presented work on the second 'hottest' cell in immunology at the moment, T-regulatory cells, which has recently been upstaged by the hottest cell of interest at the moment - T_H17 cells. Sasha presented data involving the generation of mice with dual-reporter system of the genes encoding IL-10 and the transcription factor Foxp3 which allowed tracking of Treg subsets based on co-ordinated or differential expression of these genes.

Two poster sessions were also scheduled during the long lunch breaks of the conference, thus providing students and early career scientists a great opportunity

to present their work. Attending the conference also gave me the opportunity to catch up with work colleagues I met during my last visit to NYC and also to visit the new Memorial Sloan-Kettering Cancer Centre. The new building, which spans 22 floors, is well equipped and spacious and has a great view of the city, although one had to be careful which floor you got off as some levels were still being fitted out!

Following the culmination of the conference at midday on Friday, I and other members of Mark Smyth's laboratory who had attended the CRI conference got together with members of Robert Schreiber's group from St Louis for our first laboratory retreat. Given that Mark and Bob have been collaborating for a number of years, this retreat gave members of both laboratories the opportunity to finally meet face to face and present a brief outline of the projects we were working on. This retreat was a valuable experience in many ways as it allowed us to define more clearly the areas of common research interest shared by both groups and where we could collaborate on setting up experiments as well as what reagents and resources we could share. In addition, new perspectives and ideas were discussed over the course of the meeting which helped to prioritise the experiments that needed to be performed to move our work forward. Of course it wasn't all work. Our group went out for dinner at a popular restaurant called Churrascaria Plataforma, a Brazilian steakhouse where it was all you can gorge, umm I meant eat, for two hours. There were at least 20 different types of salads, an assortment of sushi, copious amounts of seafood and pasta on offer at the buffet table. Once you've had your fill of rabbit food, or if you choose not to, you can move straight on to having meat. What you do is simply turn over a little token on your table to the green coloured side and, presto, waiters will flurry up to you to carve you all different kinds of BBQ meats (followers of the Atkins' Diet: take note!).

Following New York, 20 bagels and copious amounts of Starbucks coffee, I then attended the Cancer and Inflammation meeting at the NIH in Bethesda, Maryland. This

meeting was organised by the National Cancer Institute and had a fantastic line up of speakers. The meeting was great once I entered the NIH, where getting in was analogous to trying to enter another country! Passports were required, your bags were scanned and you had to walk through a metal detector. Once you were deemed 'safe' by the oh so 'friendly' security guards, you were rewarded with a visitor's tag! The topics that I found really interesting and of relevance to my work at the meeting included sessions on innate resistance in cancer and the inflammatory tumour micro-environment. Talks by Lalage Walefield of the NCI and Vincenzo Bronte of the University of Padua, Italy, were the standouts for me. Lalage spoke about the role of TGF-beta subverting $CD8^+$ cells into directly promoting tumour growth through an IL-17 mediated mechanism while Vincenzo talked about altered macrophage differentiation and immune dysfunction in tumour development. Besides learning a lot from this meeting, I also had the opportunity to chat with Lalage, Vincenzo and other speakers and discussed potential collaborative work in addition to obtaining valuable reagents.

So two weeks later, after numerous cups of bad coffee, and a long and eventful flight that I really like to forget about, I'm back in wonderful Melbourne! I have learnt a lot scientifically and had the chance to network with many colleagues in my field of interest as well as catch up with past colleagues. As invariably happens after you've been to good meetings, I find myself with even more to read! Importantly, I would not be able to attend these meetings if it were not for the generous financial support I obtained from ASI. Being a member of ASI has really paid off (literally!) and I have been very fortunate to obtain both postgraduate and postdoctoral travel awards from the organisation. I strongly encourage all eligible students and postdocs to apply as it really does not involve that much work to put in an application. As the saying goes, 'you've got to be in it to win it'! So thanks ASI and now if I may ask, is there any chance of setting up travel awards for postdocs more than three years out?

Travel reports on the 13th International Immunology Congress (ImmunoRio 2007) 21-25 August 2007, Rio de Janeiro, Brazil

ASI International Travel Awards provided support for a number of members to attend the recent International Immunology Congress in Brazil (held every three years). This included two post-doctoral fellows – Sammy Bedoui (WEHI) and Glen Ulett (UQ) – and five post-graduate students – Melinda Dean (MMRI), Elinaro Marino (Garvan), Ivan Poon (JCSMR), Isaac Sakala (JCSMR), and Anja Scholzen (Monash). The Award recipients provide a report on their travels as a condition of support, and the following is an edited compilation of some of their comments:

An overview of the conference:

The International Congress of Immunology (ICI) is held every three years by the International Union of Immunological Societies (IUIS) in collaboration with the host country Society for Immunology. The 13th ICI (ImmunoRio2007) was held from 21–25 August 2007 in Rio de Janeiro, Brazil. The conference venue was “Rio Centro” about 1 hour from the famous Copacabana with shuttle buses organised to transport attendees from their hotel to and from the conference centre. The venue was relatively new with more pavilions still being added.

The little bus trip in the morning wasn't too bad, as you got to see some parts of the city, which were beyond the usual tourist's scope. For others this was a welcome extra bit of time to relax from the heavy burden of experiencing Ipanema or Copacabana at night.

On the general scale of scientific meetings, ImmunoRio 2007 was a large conference with more than 4000 participants from as many as



Melinda Dean

79 different countries, 2897 abstracts and 613 oral presentations. The conference opened on Tuesday with a Brazilian family musical contingent, followed by five thousand hungry congress attendees clamouring for some very tasty South American cuisine. As one of the crowd, I can say that the wait, next to a fully stocked and staffed bar that had strict instructions not to serve drinks until later that evening, was worth it. The opening address by the Brazilian Minister of Science's spokesperson was, as mandated by law, predominantly in Portuguese and followed by five full days of quality scientific sessions.

One of the goals of the Travel program is to enable young immunologists to 'rub shoulders' with a wider audience, and get some of those experiences you just can't get from the literature:

A particularly interesting presentation was delivered by Douglas Golenbock who dissected the role of TLR9 in anti-malarial immunity. During the lecture, we were told a very interesting tale of being quasi-scooped on work that that lab was completing on TLR endosomal trafficking and ligand-induced conformational changes, and how the Golenbock lab was, at one point, on the verge of submitting a manuscript to Journal of Experimental Medicine. To their astonishment the exact opposite result was published in another prestigious journal the very same week of their anticipated submission, which led them to a full year's of experiments to ultimately determine that one of the chemicals purchased from a major commercial supplier (hint: 5 letters across, part of the bacterial DNA transcription machinery) was purified to a level of only 62% versus a reported 80% (as touted by the supplier), thereby sabotaging their original (and almost published in JEM) experiments. Switching to 99% purity grade



Glen Ulett

from a different supplier (after a year of puzzling work!) confirmed the data that had now already been published by another group. I enjoyed hearing this tale as a demonstration that even world leading labs can be faced with confusing experiments and bewildering situations when illogical data sometimes require a great deal of perseverance to comprehend.

The highlight of the conference for me, however, was the 'lunch with the speakers': This informal setting gave students, PostDocs and senior researchers alike the opportunity to meet over lunch with selected invited speakers and discuss and exchange ideas. Together with five other delegates from Europe and South America, I spent over an hour discussing the immunology and immunopathology of parasitic infections with Maria Yazdanbakhsh (Leiden University, The Netherlands) and Mark Wilson, a PostDoc from Thomas Wynn's laboratory at the NIH (Bethesda, USA). I was positively surprised how approachable the speakers were and how effortlessly we dipped in and out of various topics. I can highly recommend this format of bringing people at large conferences together, and thank the organizers for this wonderful opportunity.

One thing that stood out in the RIO conference was the friendly and relaxed atmosphere that allowed interaction between all levels of the immunology community. This was no more evident than when I changed lecture rooms to try and catch important talks in different sessions, and happened to sit next to Jules Hoffman (President of the French Academy of Sciences and Innate Immunity/TLR Drosophila Guru). As the

speaker started, I realised it was not the talk I had come to see, and at my obviously audible sigh of discontent, Jules politely and briefly outlined the main points of the talk that I had missed and finished off with “and it gets a bit complex after that” which I suppose it always does when addressing the

multiple signalling pathways of innate pattern recognition.

The site of the conference in Brazil also allowed participants to see a bit of the wider world:

My visit to Rio, my first to an underdeveloped nation was an eye opener where, within 500m span, there would be new hotels, restaurants and the favelas (slums) side by side but living an entirely different way of life. Aside from the favelas, residents appeared to live primarily in high rises or apartments, with relatively few stand alone homes in comparison. I was able to visit the Christ the Redeemer statue and also witness Rio's oldest football team "The Flamencos" beat Gois 3-1 convincingly at the Maracana stadium. In conclusion, my trip to RIO was a great education experience, both scientifically and personally and I am thankful to the ASI for their financial support that allowed me to undertake this journey.

Some of the memorable sessions picked out by the attendees:

The conference was graced with Nobel-prize winning immunologists including Rolf Zinkernagel (Switzerland) and Peter C Doherty (Australia). As the outgoing

President of the IUIS, Rolf was the first plenary speaker and gave a talk entitled "On words and their meaning in immunology: memory versus protection." Peter, who stepped in as the Acting IUIS President, spoke at the closing ceremony on the "Adventure with killer T cells." He talked about how he and Rolf discovered restriction of T cells by the major histocompatibility complex (MHC) class I molecules while working at the John Curtin School of Medical Research.

On a more technical note, Lee Herzenberg raised the question as to why immunologists are so particular about keeping the CO₂ levels in their cultures similar to what can be expected in the tissues, yet the O₂ concentration is usually kept at atmospheric level being 2-4 times as high as tissues concentrations. Interestingly, she showed that CD3/CD28 stimulation of primary T cells differs significantly when cells are either kept at atmospheric or physiological oxygen levels.

Although a good time was had by all, it was not all beer and skittles. The remote location and large size of the conference had their downsides:

On the other hand, it was a nightmare travelling to Rio from Australia and I will never travel with Aerolineas Argentinas ever again (they did not inform anyone in English

that we landed on a different domestic airport, 26 hour delay in Buenos Aires and we nearly missed two connecting flights because of additional delays)!

The downside of such a large conference was its anonymity, and maybe resulting from it, a sense of competitiveness and a lack of obligation to other participants. Thus, I wasn't alone with some disappointing experiences when posters and talks, that I had marked in my conference booklet in happy anticipation, were never presented, while others only contained published or "in press" results. Amongst these 'ghosts' were also a number of posters and presentations on dendritic cells that I therefore missed out on.

As expected, it was a relatively big conference with about 16 simultaneous mini-symposia every morning and six concurrent main-symposia in the afternoon, making it a little difficult to catch all the presentations of interest. The quality of science, presentations and discussions was stimulating and of high standard, however, it was very disappointing and rude that a majority of people were leaving the plenary sessions while the speakers were still answering questions.

Finally, it should be said that all the attendees emphasised how much they had gained from the conference, and expressed their thanks to ASI for its support. Many of them also took the opportunity to visit other laboratories in the process, and both broaden their personal horizons, and spread the message of Australasian Immunology far and wide. For future applicants, it is worth noting that many of the scholarship recipients emphasized their hesitance at initially applying, and their surprise at receiving such a prestigious award. So please keep those applications coming!

Ivan Poon



Isaac Sakala



Sammy Bedoui



Guidelines for the ASI Visiting Speakers Program (ASI-VSP)

Definition

ASI sponsors the visit of international speakers (immunologists working overseas who are world-recognised authorities in their field of research) under two categories:

- (a) ASI Visiting Speaker, coming from overseas, and
- (b) ASI Sponsored Speaker, already in Australia/New Zealand. The selection of the candidates is made twice a year by the ASI Council and the number of sponsored visitors is decided according to the yearly budget.

Terms of Offer

The ASI covers a maximum of \$A5,000 for category (a) and \$A2,000 for category (b) to cover refundable economy airfares, transportation within the home country and appropriate travel insurance. In addition, every hosting branch may apply to receive \$A150/night, to a maximum of three nights required for the ASI visit. The hosting member (Branch) is responsible for procuring funding to cover any additional expenses.

Guidelines for applying for funds for visiting speakers:

(a) ASI Visiting Speaker

- (i) Nominations can be made by any ASI member willing to host and co-ordinate the visit. The nominating member should seek "in principle" agreement of the "terms of offer" by the visitor
- (ii) Nominations to be made by email to the co-ordinator twice a year (deadlines: May 15 and November 15) and include a CV, a timeframe of the visit and a short justification. Later proposals will be considered if funds available
- (iii) Speaker must be visiting four or more cities, including two of Perth, Adelaide, Hobart, Brisbane, and any NZ city
- (iv) Speaker must not have been supported in past three years as an ASI visitor

(b) ASI Sponsored Speaker

- (i) Nominations can be made by any ASI member willing to host and co-ordinate the visit. The nominating member should seek "in principle" agreement of the "terms of offer" by the visitor

- (ii) Nominations should be addressed to the ASI Visiting speaker co-ordinator (J. Alejandro López) at any time. He will seek interest in the proposed speaker from the branches and will present the information to the Council. Decisions will be met by the Council depending on budgetary constraints
- (iii) Preference is given to speakers visiting three or more cities/centres

Sustaining Membership

ASI Inc acknowledges the support of the following sustaining member:

- Jomar Diagnostics



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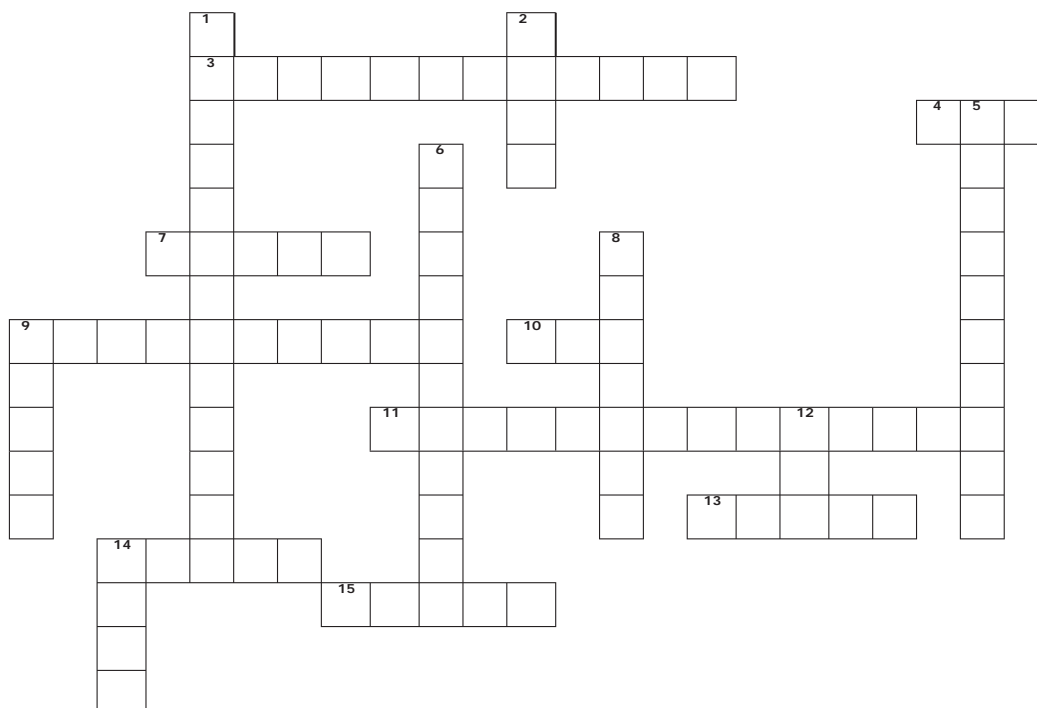
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ASI Student Page

Hello all, just a spot of fun with an immunologically inspired crossword. Whether it's winding down for Christmas or brushing up on your CD antigens (you will understand why the system was standardized) have fun! [Answers in March 2008 issue.]



Across

3. Proud to call myself an "....."
4. Australasian Society for Immunology
7. DNA – double "....."
9. Powerful tool
10. Where we live (don't pretend it isn't true)
11. Processes antigen material and presents to other cells
13. *CD antigen* Frizzled-10
14. yummy icecream – cookies and "....."
15. Hosting city of our great conference

Down

1. Place of many hours, UV lights and incubators
2. "... .." Merry Christmas!
5. overseer (some more than others...)
6. IL
8. Aim of the game!
9. *CD antigen* Complement receptor-4
12. *CD antigen* Leu4
14. *CD antigen* B7-1

Introduction – New Student Rep

I must start with a special thank you to all the previous student reps for their contributions to ASI/students and I am looking forward to becoming the next student rep for 2008.

Here is just a little bit about myself: After spending hours in the dark looking under the confocal microscope during my Honours (examining the intracellular localization of a chicken anemia virus protein VP3) at the Department of Biochemistry and Molecular Biology (Monash University), I was searching for a change in lifestyle and research environment elsewhere in Australia. Through the advice from my previous supervisors, Prof. David Jans and A/Prof. Jennifer Rolland, I decided to undertake my PhD at the John Curtin School of Medical Research (in Canberra!) with Prof. Chris Parish and Dr Mark Hulett, studying the role of Histidine-rich glycoprotein at sites of tissue injury, in particular its function in necrotic cell clearance. Although the nightlife is not as much of an extravaganza as in Melbourne or Sydney, Canberra is a fantastic place to live (just a bit cold during winter).

Hope to see you all at the 38th Annual Scientific Meeting in Canberra next year and feel free to contact me via email: ivan.poon@anu.edu.au.

*Cheers,
Ivan Poon*





Immunome Research

<http://www.immunome-research.com/>

Request for Article Submissions

Immunome Research is the journal of the International Immunomics Society (IIMMS). It is an open access, peer-reviewed, online journal publishing cutting edge research at the intersection of immunology research with the latest technologies, including genomics, immunoinformatics and mathematical modelling.

Examples of recent papers include Alex Sette's groups new model for predicting B cell epitopes, plus papers describing new methods for predicting MHC-peptide binding, modelling viral/host interactions, and using genomic technologies to better understand immune function.

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For further information please contact the Editor-in-chief, Professor Nikolai Petrovsky, (nikolai.petrovsky@flinders.edu.au) or the Associate Editor, Dr Susanne Heinzel (Susanne.Heinzel@fmc.sa.gov.au)

ICB Publication of the Year Award 2006

Each year *Immunology and Cell Biology* offers an ICB Publication of the Year Award. The eligibility requirements for the award are quite simple: The first author of any Original Article, Theoretical Article or Brief Communication published in *ICB* is eligible providing they are a financial member of ASI by April of the year in which the article is published. The award consists of an AU\$1,000 scholarship provided by The Nature Publishing Group.

A small committee, consisting of the Editor-in-Chief of *ICB*, the current ASI President and another ASI member, selects the best eligible paper based on the sole criterion of scientific excellence. This year I am pleased to announce that Dr Helen Thomas was the unanimous choice as the winner of the 2006 ICB Publication of the Year Award. Dr Thomas' winning paper is entitled "Perturbations in NF κ B or c-Jun N-terminal kinase pathways in pancreatic beta cells confer susceptibility to cytokine-induced cell death" and was published in the February 2006 issue of *ICB*.¹ For many years pro-inflammatory cytokines have been implicated in pancreatic beta cell destruction during the progression of type 1 diabetes. A proposed approach to blocking cytokine-mediated beta cell destruction has been the inhibition of cytokine-induced gene expression in beta cells. The study by Dr Thomas and colleagues published in *ICB* has indicated, however, that defects in cytokine signalling pathways, such as NF κ B, rather than protecting beta cells make them more susceptible to cytokine attack. These findings have considerable implications for future strategies for the prevention and treatment of type 1 diabetes.

Dr Helen Thomas is a senior investigator in the Immunology and Diabetes Laboratory at the St Vincent's Institute of Medical Research in Melbourne. She completed her PhD at the Walter and Eliza Hall Institute and is currently undertaking post-doctoral studies under the supervision of Professor Tom Kay at the St Vincent's Institute. In 2001 she was awarded a Juvenile Diabetes Research Foundation (JDRF) Advanced



Dr Helen Thomas, recipient of the 2006 ICB Publication of the Year Award

Post Doctoral Fellowship and currently holds a NHMRC RD Wright Career Development Award. During her research career she has used transgenic and knockout mice to make several key discoveries about the pathways that lead to pancreatic beta cell destruction in type 1 diabetes. In addition to her research role, she has also been involved in establishing human islet isolation for the Tom Mandel Islet Transplant Program.

I believe that this year's award highlights the high standard of manuscripts being published in *ICB* and, I hope, will encourage others to join the ASI and submit their outstanding research to the journal.

1. Thomas HE, Angstetra E, Fernandes RV, Mariana L, Irawaty W, Jamieson EL, Dudek NL *et al.* Perturbations in NF κ B or c-Jun N-terminal kinase pathways in pancreatic beta cells confer susceptibility to cytokine-induced cell death. *Immunol Cell Biol* 2006; **84**: 20-27.

Christopher R Parish
Editor-in-Chief
Immunology and Cell Biology

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UPCOMING LECTURES & CONFERENCES

Molecular Approaches to Malaria
February 3-7, 2008
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grant@wehi.edu.au
www.mamconferences.org

8th International Conference on New
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Immunotherapy
February 14-17, 2008
Berlin, Germany
immuno@kenes.com

Australasian Vaccines &
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Workshop
May 14-16, 2008
Surfers Paradise, Queensland, Australia
Rajiv.Khanna@qimr.edu.au
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International Conference
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www.firnweb.com

20th Annual ASHM Conference
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