NEWSLETTER

Australasian Society for Immunology Incorporated

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Recollections on Beginnings – of ASI and of ASCIA

Ian R Mackay
Department of Biochemistry & Molecular Biology, Monash University, PO Box 13D, Clayton Vic 3800 Australia
ian.mackay@monash.edu

In 1999 Nicholas King, as then Editor of the Newsletter, requested me to write about early events and personalities identified with the Australasian Society of Immunology (ASI) Inc. My embarrassing deferral of this kind invitation was perhaps based on the authorship pun attributed to Christopher Fry: "Everything writes itself in time!". The history of the ASI was recently described in this Newsletter by Keven Turner, beginning with the convening in November 1962 in Adelaide of a 1-day convivial get-together of some dozen prominent Australian immunologists who decided that further meetings should be arranged annually. FM Burnet of course attended these and one might even wonder why he had never taken this initiative himself – after all, a national immunology society had been formed as early as 1916 in the USA and in 1956 in the UK. Perhaps Burnet was not the kind of person who would bother with forming a society, or possibly believed (although I have no evidence for this) that all the worthwhile immunology in Australia was occurring anyway under the roof of the Walter and Eliza Hall Institute (WEHI). I joined the second gathering held in Melbourne at WEHI in November 1963, and I well remember (with scepticism!) Rowley's low-pitch scenario for the now-established group: informality, no rules, no constitution, no membership dues, just a regular friendly colloquium.

However, as Keven Turner related, by the third meeting in Canberra convened by Kevin Lafferty, in December 1964, the group had already become the "Australian Society of Immunologists" complete with a Presidential Address (MacFarlane Burnet). And – past

Ian Mackay, author of this retrospect, was Head of Clinical Research Unit at WEHI 1963-1987 and then relocated to Monash University Department of Biochemistry & Molecular Biology at Clayton, here shown holding forth at an international theatre on the mysteries of autoimmunity. [Photograph from subject]

days indeed! – attendees arriving on flights were met at the airport and economically accommodated at the Australian National University (ANU) for a mere £3 per night. Amusingly remembered are the idiosyncratic views of Bede Morris on the origins of lymphocytes, noting that B cell terminology then was somewhere in between the original avian bursa-derived B cell, and the later mammalian bone marrow-derived B cell. Barbara Heslop (Dunedin NZ) reminded me of his evening presentation in the courtyard of Ursula Hall, with attendees suitably prepared with alcohol, reflecting on the anatomical site of the bursa of Fabricius in birds in the vicinity of the cloaca, and showing slides of a Romanowsky-stained lymphocyte, intoning in an extravagant Australian accent, "This is a T cell," with the next a slide consisting of a very similar (maybe the same) lymphocyte, commenting, "and this is a B cell" (Romanowsky stains had nothing to offer on cell markers). Also presented were some Chaplin-esque film sequences of a technician rounding up birds (hens or turkeys?) in a laboratory animal facility.

cont. p4

Contents

ASI Inc. COUNCIL

President
Dr David Tarlinton
Walter & Eliza Hall Institute of Medical Research
1G Royal Parade, Parkville Vic 3050
Ph: 61 3 9345 2615
Email: tarlinton@wehi.edu.au

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Ph: 61 7 3362 0414
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South Australia & Northern Territory
Dr Michele Grimbaldeston
Ph: 61 8 8222 3083
Email: michele.grimbaldeston@health.sa.gov.au

Western Australia
Dr Alec Redwood
Ph: 61 8 9346 2512
Email: aredwood@cyllene.uwa.edu.au

Australian Capital Territory
Dr Stephen Daley
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Email: stephen.daley@anu.edu.au

New Zealand
Dr Anne LaFlamme
Ph: 64 4 463 6093
Email: anne.laflamme@vuw.ac.nz

FIMSA Councillor
Dr Guna Karupiah
Ph: 61 2 6125 4562
Email: guna.karupiah@anu.edu.au

Contact for Tasmania
Dr Greg Woods
Tel: 61 3 6226 4830
Email: g.m.woods@utas.edu.au

Non-Voting Councillors:

Newsletter Editor
Dr Simon Apte
Ph: 61 7 3362 0380
Email: Simon.Apte@qimr.edu.au

Journal Editor
Dr Gabrielle Belz
Ph: 61 3 9345 2544 Fax: 61 3 9347 0852
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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: Email: alejL@qimr.edu.au

Council Member of IUIS
Dr Franca Ronchese
Ph: 64 4 499 6914 ext 828
Email: fronchese@malaghan.org.nz

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

ASI Student Representatives
Ms Kate Parham
Ph: 61 8 8222 3727
Email: kate.parham@imvs.sa.gov.au
Ms Wai-Yan (Kiwi) Sun
Ph: 61 8 8222 3852
Email: waiyan.sun@imvs.sa.gov.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,

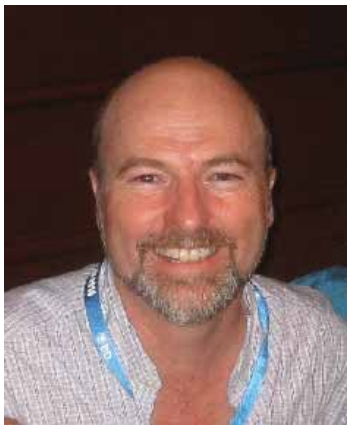
as well as a plethora of links to sites of immunological interest at home and abroad. If you'd like your lab home pages linked to the site, would like to advertise a job or conference, or have a favourite immunology-related site that doesn't currently appear on the ASI site, please email Judy Greer at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

Ask a successful senior medical researcher for their opinion on the prospects of a career in medical research and it is likely they will tell you it's tough, but if you work hard enough, want it hard enough and are smart enough, you will make it. This is perhaps at odds with the opinion you will get from many post-docs and is contrary to the opinion of some commentators. For example, Jennifer Rohn writing in *Nature* (471, 7(2011)) suggests that "the career structure for scientific research in universities is broken" and writes of "dwindling opportunity". So what are the career prospects for medical researchers in Australia? It seems quite simple – if you work within the NHMRC system either your prospects are OK or they are not. The real question is – what makes the difference? I am sure there are many ASI members who have strong (and possibly opposing) opinions about exactly which things make the difference. Personally, I am not sure what the X-factors are; however, I think the terms *career path* or *career structure* are a little misleading as they imply that some program or method exists that can be followed and that once you are on the pathway (i.e. a post-doc) then you have a right to succeed. Simply looking at the number of PhD students in any institution compared to the number of lab heads is proof enough that the attrition rate is necessarily high and that success in the system is far from guaranteed for anyone. In this edition (page16) we present a review of a presentation given to students and post-docs at QIMR on *Careers in Medical Research* by Rajiv Khanna and David Whiteman (both QIMR). Rajiv and David presented data they had collated on the potential indictors of successful fellowship applications and these are reproduced in the article and make for interesting (and sobering) reading.



We are also very pleased to present in this edition a recollection on the beginnings of ASI and the Australasian Society of Clinical Immunology and Allergy (ASCIA) by eminent ASI Honorary Life Member, Ian Mackay. Ian's article provides an entertaining and informative insight into the origins of the 'schism' between experimental and clinical immunologists in Australia. I am sure that many ASI members will not be aware of the important origins, connections and subsequent disconnections between the two Societies. Ian asks the question of whether the relationship between the two Societies can be improved; a very relevant question given the growing emphasis on the need for the 'translation' of basic immunological research.

ASI actively supports a Visiting Speaker Program (VSP) and thanks go to VSP Co-ordinator Alejandro Lopez for his report (page11) on the three upcoming visitors for 2011: Dr Shane Crotty, Dr Warren J. Leonard, and Prof. Astrid Westendorf. The role of VSP Co-ordinator is a non-voting Council position and, like several other Council positions, will become vacant in December (see the Honorary Secretary's News on page 15). This year, two very important positions on the ASI Executive will become vacant: Vice President (leading to President) and Honorary Secretary (possibly the most important and challenging role within ASI). The roles and responsibilities of each of the ASI Council members were described in an article published in the last newsletter (June 2011) and I strongly encourage you to look at the position descriptions and consider contributing your time to our Society.

Finally, once again the annual conference is shaping up to be a spectacular line-up of high-profile national and international speakers and boasts four special interest workshops that will precede the main meeting. A summary of the conference line-up is presented by Gabriela Minigo on page 8. I look forward to seeing you all there.

Simon Apte

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

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 YOU COULD WIN $200 FOR THE BEST ARTICLE PUBLISHED IN THE NEWSLETTER!**

Recollections on beginnings, cont.

The set-up virtually precluded any serious debate on immunology: he intended to entertain, and well he succeeded! Unforgettable too were the ardent disputations of Kevin Lafferty on what were then the earliest concepts of "co-stimulation", albeit couched in his characteristically idiosyncratic phraseology. He is appropriately commemorated by the ever-popular Kevin Lafferty Debate at the ASI Annual Scientific Meeting (ASM).

However, by 1969, Rowley had conceded (*Immunology & Cell Biology*, December, 1991, 308-309) that "our friendly and amateurish approach" was no longer viable and so, at the 1970 December ASM in Perth, a motion to adopt a constitution was moved and passed unanimously, and drafted forthwith, with Derrick Rowley appropriately becoming the inaugural President. The first meeting of the fledgling ASI was convened by Richie Nairn in Melbourne in December 1971 at the Prahran campus of Monash University and I believe I was the first speaker in a Symposium entitled (what else?) "Landmarks in Clinical Autoimmunity": at least my abstract book shows my abstract as No.1. Re-reading this 40 years later raised doubts about our progress, since I concluded: *"…we grope for an understanding of how natural tolerance is maintained, how and why this fails, what determines pathogenic effects when tolerance does fail, and how these may be arrested; and how intrinsic (genetic) and extrinsic (infectious, chemical) factors make their contributions to autoimmune disease."* Perhaps this could be re-cycled for any meeting on Autoimmunity today? Not really: think of molecular immunology, MHC restriction, immunogenetics, transgenic and gene knockout mice, cytokines and chemokines and growth factors, lymphocyte traffic, suppression/regulation, monoclonal antibodies and therapies derived therefrom, and more besides. Yes, next year, 2012, will mark an amazing 50 year anniversary of Rowley's first "friendly gathering" in Adelaide.

Well, that was one beginning. Of interest too and also covered in Keven Turner's history, and in detail in a recent article by Tony Basten (*Immunology & Cell Biology*, January, 2008, 16-21), is a more recent beginning. This involved some quite intriguing "immunopolitics" culminating in our "great schism" – between experimental and clinical immunologists – and the eventual formation in 1990 of the Australasian Society of Clinical Immunology and Allergy (ASCIA), later to be styled as the "the peak professional body of clinical immunologists in Australia and New Zealand". As background, discoveries during the 1950s had led to the recognition of autoimmunity as a general cause of human disease (*Autoimmunity Reviews*, March, 2010, A251-A258), the next new cause after the germ theory of the late 19th century and, arguably, one of the major surprises of 20th century medicine, and generating numerous innovations in laboratory diagnostic procedures, particularly indirect immunofluorescence. So the new discipline of Clinical Immunology emerged as an attractive field of academic medicine and clinical and laboratory endeavour. By the mid 1960s specifications could be drawn for the design and function of a Department of Clinical Immunology with a published version of this by Senga Whittingham and myself (*Clinical & Experimental Immunology*, June, 1971, 857-861) proving quite popular as a general prototype.

There followed the establishment of national and international committees and societies based on "clinical immunology" to facilitate exchanges of information, advice to administrators, and speciality training programs for postgraduate diplomas, new journals and books on clinical immunology came into being, and the many well established international and national societies of allergy/allergology began tacking "and Clinical Immunology" onto their designation. The ASI in 1972 duly moved to create a Sub-committee of Clinical Immunology (convenor Richie Nairn, initial members David Nelson and Ian Mackay, and later Ron Penny and John Sands representing the Colleges) to report on training requirements and types of diploma suited to special needs, whether clinical immunology, immunopathology or both. This Subcommittee was later broadened and converted into a full Standing Committee, and accorded executive powers to negotiate on behalf of ASI with the Royal Colleges and Government on issues such as training and provision of clinical and pathological services in immunology.

However two major issues came to change the landscape. First, a section of the membership of ASI, clinically oriented or in pathology service laboratories, perceived the ASI Standing Committee as not entirely sufficient to accommodate all the needs, bench and bedside, training and apprenticeship, fiscal and administrative, faced by providers of clinical immunology services. So in 1982, mainly on the initiative of Roger Dawkins in Perth, a Clinical Immunology Group

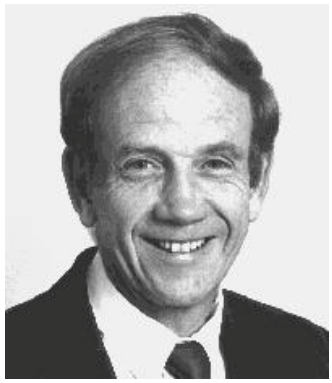
Kevin Lafferty. Retired as Director of JCSMR Canberra in 1998, was an early proponent of concept of co-stimulation, convenor of the first Annual Meeting of ASI to be named as such in 1964, and whose remonstrative critiques at ASI meetings are commemorated at the ASM by the Kevin Lafferty debate. [Photograph: JCSMR archive]

Bede Morris. Professor of Department of Immunology at JCSMR Canberra was a renowned sheep immunologist particularly for studies on lymph flow and cellular content, and is well remembered as an inimitable entertainer at the early ASI meetings. [Photograph: ASI archive]

Barbara Heslop. Professor, Department of Pathology at University of Otago, pioneered studies in transplantation immunology in NZ including rat immunogenetics and allogeneic lymphocyte cytotoxicity, and was President of NZSI at the first combined NZSI and ASI meeting held in 1985 in Queenstown, NZ. [Photograph from subject]

Derrick Rowley. Professor of Microbiology (later Microbiology & Immunology) at University of Adelaide with major interests in intestinal immunology, and initiated ASI via instigating in 1962 his annual friendly "get-togethers" of Australian Immunologists (see ASI newsletter, June 2011). [Photograph: ASI archive]

Richard (Richie) Nairn. Foundation Professor of Pathology (and later Immunology) at Monash University (Alfred Hospital), was an expert in diagnostic immuofluorescence, and guided the early directions of clinical immunology in 1970s via Chairmanship of ASI Committee and protaganist of teaching programmes. [Photograph: Monash University archive]



Tony Basten. Former Director of Centenary Institute, Sydney, presently at Garvan Institute, whose research from the 1970s using transgenic mice greatly advanced knowledge on mechanisms of immune tolerance and, as proponent of human immunology, implemented formation of ASCIA, becoming inaugural President, 1990. [Photograph: ASI archive]

(CIG) was created comprising 57 members of ASI. This attracted enthusiastic support such that by 1983 a virtual merging with the ASI Standing Committee ensued. The CIG arranged its own executive (CIG Management Committee) and scientific meetings that fitted in with the AGM of ASI. Outcomes included accommodation of practitioners concerned with immune deficiency diseases, and provision of clinical immunologists who in the 1980s successfully engaged the newly recognized AIDS when infectious disease was not a recognized clinical specialty. Also, discussions were held between CIG and the Australian Tissue Typing Society (ATTA, founded in 1976) resulting in ATTA having a (non-enduring) representation on the Council of ASI.

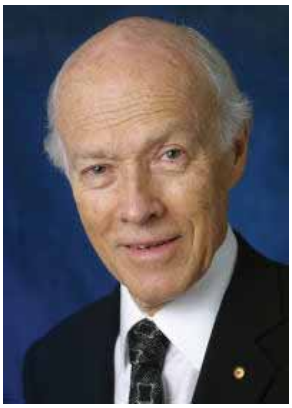
The second major issue was unrest among practitioners of allergy which, as a field of study of the pathology of the immune response, developed naturally from observations in the early 1900s of adverse reactions following injection of a foreign proteins, initially horse serum, earlier described as "anaphylaxis": thus immunity, so clearly designed to protect against potentially harmful intruders, could itself be a cause of disease. The initial descriptions of allergy and autoimmunity were concurrent (1906 and 1904), but it was allergy that rapidly took hold, worldwide, to become a highly fashionable area of medical practice, whilst autoimmunity in the face of negative authoritarian mindsets underwent a long eclipse. Indeed, by the 1930s there were numerous societies and journals devoted to allergy, and "allergic" had become the default option to describe any kind of pathological response emanating from dysfunction of the immune system. Yet, as remarked by Silverstein (The History of Immunology, 2nd edn. 2009), "one can detect a continuing and pervasive schizophrenic approach to the relationship between allergy and immunity, shared by both immunologists and allergists".

The earliest Australian specialist in allergy was Charles Sutherland who in 1936 started an allergy service at the Alfred Hospital in Melbourne and attempted the purification and standardization of allergen preparations with the Commonwealth Serum Laboratory (Internal Medicine Journal, June, 2006, 394-398). Thereafter Australian allergists formed their own specialist society that later became the Australian College of Allergy (ACA), although only a minority had acquired any type of post-graduate qualification, so the ACA occupied rather a small and low-visibility niche among the medical specialties. Attempts were made to connect with ASI, but were unsuccessful. I was approached on various occasions in the 1970s as a member of the ASI Standing Committee by office-bearers of the ACA, in particular John A Stewart who plaintively recounted, "The Plagues of the Practice of Allergy" (empiricism, lack of a scientific base and various others), with hopes that allergy and clinical immunology could be joined for the betterment of both. I remained sympathetic, supportive and encouraging, as did the CIG constituency in general, such that serious discussions began on a merger between CIG and ACA.

So, in the 1980s, opinions within the CIG were developing on detachment from ASI to form an autonomous clinically oriented society. My preferences were that a merger of the CIG and ACA should proceed, but with this new group remaining in some way under the aegis of ASI, although feelings were divided on this. As then chair of the ASI Standing Committee, and seeking a democratic solution, I convened a meeting in Melbourne in 1988 of nine balanced representatives of the Standing Committee and the CIG and, after lengthy debate, put to a vote whether the CIG should secede and form an independent society: the affirmative was carried, 5 votes to 3, with chairman abstaining. The CIG and ACA quickly completed their negotiations, and by 1989 a draft constitution had been developed. The CIG preferred that the new society be titled the Australian Society for Clinical Immunology and Allergy (ASCIA) whereas the ACA, understandably, preferred "Allergy and Clinical Immunology" consistent with wide international usage – actually of some 100-odd national allergy societies worldwide, all carried the latter designation – but the CIG maintained that the breadth and scope of clinical immunology were so broad that Australia should "lead by example" (first ASCIA *Newsletter*, November 1990). In the event, after final negotiations, a ballot was taken for ASCIA versus ASACI that succeeded, according to Tony Basten who presided, by just one vote!

A highly successful foundation scientific meeting of ASCIA was held in Melbourne in April 1990 with Tony Basten as inaugural president: the schism was complete. The Final Report of the

Senga Whittingham. A tireless and perspicacious human immunologist with the WEHI Clinical Research Unit, developed and refined numerous serodiagnostic assays, and published a widely influential paper in 1971 on the Design and Function of a Clinical Immunology Department. [Photograph: ASI archive]

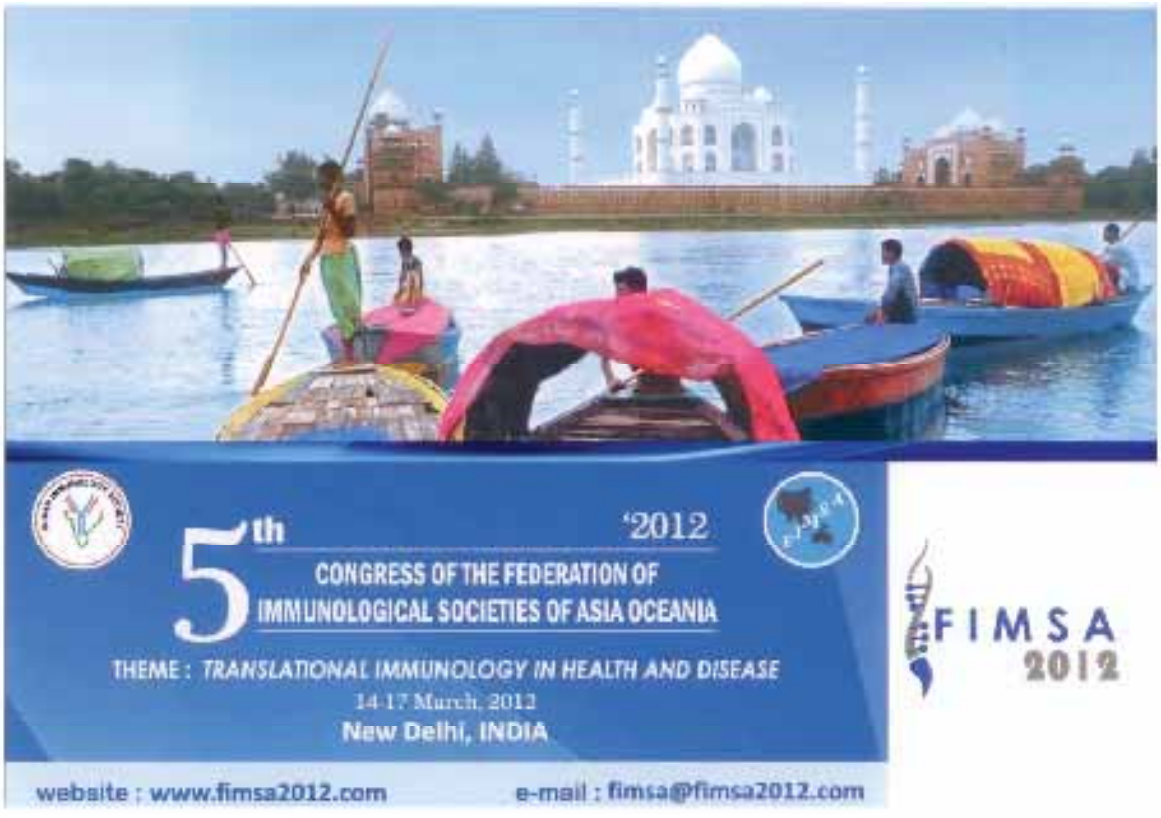


Ron Penny. Established the first clinical immunology unit in NSW at RPA, was highly prominent in the early investigation of the AIDS epidemic in Australia in the 1980s, and a member of the ASI Committee for Clinical Immunology. [Photograph: ASI archive]

Roger Dawkins. Professor, Department of Pathology, University of Western Australia, internationally recognized immunogeneticist and described (Medical Forum, WA) as "fascinated by autoimmunity and the genes that control it", set up within ASI the Clinical Immunology Group (CIG) forerunner of ASCIA. [Photograph: Medical Forum, WA]

President of the by-then defunct ACA, David Hill, expressed expectations of strong links between ASCIA and the Royal Colleges, and ASI, and reiterated closing comments from the CIG that ASCIA would "maintain and foster the close and trusting relationship between CIG and ASI" (ASCIA 1990 *Newsletter*). In conclusion, we now see two highly successful societies, ASI and ASCIA, basic and clinically applied, each independent yet interdependent by reason of the goal in common of advancement of knowledge and human benefits of immunology. The needs today were expressed by the lofty slogan of the 14th International Congress of Immunology of 2010 in Kobe, Japan: "Immunology in the 21st Century: Defeating Infection, Autoimmunity, Allergy and Cancer" – however the exact progress towards the "Defeat" did not become clearly evident. This, plus modern catch-cries of "translational research" and "bench-bedside-bench interaction", together with the commendable success of ASI in attracting to Melbourne the 16th International Congress of Immunology in 2016, should reawaken the 1991 hopes of a "close and trusting relationship" between ASI and ASCIA to the benefit of each. Can Australia, which has led the way in so many developments in immunology, remediate the prevailing "disconnectedness", within and beyond our shores, between the natural translational partners?

My thanks for reminders to Tony Basten, Senga Whittingham, Keven Turner, Graham Mitchell, Barbara Heslop and many others.



Fifth Barossa Meeting

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REGISTRATION AND ABSTRACT DEADLINE

31st August 2011, limit first 100 registrations. A number of abstracts will be selected for oral and poster presentations. Please visit the website to register and submit an abstract–www.sapmea.asn.au/signalling2011.

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Cancer, inflammation, immunity, therapeutic targets, non-coding RNA, signalling modules, ubiquitination, signalling architecture, bioactive lipids, developmental signals.

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Alpha Yap Institute for Molecular Bioscience, University of Queensland, Australia

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MEETING SECRETARIAT

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SA PATHOLOGY

41st ASI ANNUAL MEETING

Mark your diary: 11-15 December 2011, Adelaide

With the end of the year fast approaching, we would like to invite all ASI members to the upcoming 41st Annual ASI Meeting to be held 11–15 December in Adelaide in sunny South Australia. Don't miss the Early Bird Registration (ends 30th September 2011).

Determined to deliver a terrific and memorable event to all attendees, the organising committee and, above all, our Convenor, Dr Claudine Bonder, has been working tirelessly on finalising the scientific and social program.

The themes for the 2011 conference include: allergy, antigen presentation, autoimmunity, immune regulation, inflammation, infection and immunity (viral, bacterial & parasites), innate immunity, lymphocyte differentiation, mast cells, mucosal immunity, neuroimmunology, reproduction and developmental immunology, transplantation, tumour immunology, vaccines, vascular immunology, and more …

High profile international speakers committed to presenting at the meeting include (in alphabetical order):

Lisa Coussens is Co-Director of the Mouse Pathology Core and the Cancer, Immunity and Microenvironment Program at University of California, San Francisco. Her research focuses on the role of immune cells and leukocyte proteases as critical regulators of solid tumor development, including skin, lung and breast cancer development.

Richard Flavell is Sterling Professor of Immunobiology at Yale University School of Medicine. His world class innovative research uses transgenic and gene-targeted mice to study T cell tolerance and activation in immunity and autoimmunity, apoptosis, and regulation of T cell differentiation.

Michael Karin is Distinguished Professor of Pharmacology and Pathology at the School of Medicine, University of California, San Diego. He is a leading world authority on signal transduction pathways that regulate gene expression in response to extracellular stimuli, infection, inflammation and stress. Dr. Karin has published over 300 scientific articles and was ranked first worldwide by the Institute of Scientific Information (ISI) in a listing of most-cited molecular biology and genetic research papers published in prestigious journals.

Paul Kubes is the founding Director of the new Institute of Infection, Immunity and Inflammation in Calgary Alberta and full professor at the University of Calgary's Faculty of Medicine and a Canada Research Chair. His research studies how the immune system responds to infections and sterile injury by using cutting edge microscopy imaging the host response in blood termed intravascular immunity.

Alberto Mantovani is Professor of Pathology at the Faculty of Medicine, University of Milan, Italy, Scientific Director of Istituto Clinico Humanitas and President of the Humanitas Foundation for Research. His research investigates molecular regulation mechanisms of leukocyte infiltration, particularly the function and regulation circuits of cytokines, chemokines and their receptors.

Andrew McKenzie is a Programme Leader at the MRC Laboratory of Molecular Biology in Cambridge, UK. His research investigates the roles of cytokines in immunoregulation, especially those that typify asthma and allergy. He has discovered the novel innate immune cell termed the nuocyte, and shown them to be critical in type-2 immunity.

Michel Nussenzweig is the Sherman Fairchild Professor of Immunology and an HHMI Investigator at the Rockefeller University, New York, USA. His research focuses on dendritic cell and B cell biology.

Ed Palmer is Professor of Experimental Transplantation Immunology at the University Hospital in Basel, Switzerland. His major interest is to understand the molecular principles behind T cell tolerance.

Shigeru Saito is Professor and Chairman in the Department of Obstetrics and Gynecology, Toyama Medical and Pharmaceutical University, Japan. His research centers on immunology at the maternal and fetal interface and the pathophysiology of preeclampsia, pregnancy loss, and preterm labor. His studies focus on cytokines, chemokines and the immune cells that produce them, including regulatory T cells and regulatory NK cells.

Joachim Schultze is Director for Genomics and Immunoregulation at the Life & Medical Sciences (LIMES) Institute at the University of Bonn, Germany. His research investes genomic technologies to foster immunological and biomarker research in both malignant and infectious diseases.

Michal Schwarz is Professor of Neuroimmunology at the Weizmann Institute, Israel. Her research focuses on the cross-talk between immune cells and the nervous system in health and disease. In particular, how adaptive immunity, in concert with resident microglia and recruited blood-borne monocytes, plays a key role in central nervous system plasticity.

Megan Sykes is Professor of Medicine and Professor of Microbiology & Immunology and Surgical Sciences and Director of the Columbia Center for Translational Immunology at Columbia University, New York. Her research focuses on hematopoietic cell transplantation, achievement of graft-versus-leukemia effects without GVHD, organ allograft tolerance induction and xenotransplantation.

Raz Yirmiya is Director of the Inter-Departmental Program in Psychobiology at the Hebrew University of Jerusalem, Israel. His research investigates the implications of immune-to-brain communication for psychiatric and neurological conditions and the role of brain inflammatory cytokines in normal brain functioning, particularly in memory consolidation and neural plasticity.

It is with pleasure that we announce the confirmed national speakers (in alphabetical order):

Matthias Ernst (Ludwig Institute for Cancer Research, Melbourne)
Georges Grau (The University of Sydney)
Shane Grey (Garvan Institute, Sydney)
Paul Hertzog (Monash Institute of Medical Research, Melbourne)
Michael Hickey (Monash University, Melbourne)
Phil Hodgkin (Walter and Eliza Hall Institute, Melbourne)
Geoff Hill (Queensland Institute of Medical Research, Brisbane)
Steve Krilis (The University of New South Wales, Sydney)
Anne LaFlamme (Victoria University of Wellington, New Zealand)
Graham LeGros (Malaghan Institute of Medical Research, Wellington, New Zealand)
Alex Loukas (James Cook University, Cairns)
Suresh Mahalingam (Griffith University, Gold Coast)
Fabienne Mackay (Monash University, Melbourne)
Sarah Robertson (The University of Adelaide)
Matt Sweet (The University of Queensland, Brisbane)
Wolfgang Weninger (The University

of Sydney)
Keryn Williams (Flinders University, Adelaide)

As in previous years, four special interest group workshops will precede the meeting on Sunday 11th December: Infection and Immunity (Co-ordinator: Ms Erin Lousberg), Tumour Immunology (Co-ordinator: Dr Cara Fraser), Transplantation Immunology (Co-ordinator: Assoc/Prof Toby Coates) and the Postgraduate workshop (Co-ordinator: Dr Lindsay Dent). Separate registration will be required for attending these workshops.

This year's Burnet Oration will be given by Professor **Bill Heath** (University of Melbourne) and, as is ASI tradition, we can look forward to an entertaining Lafferty Debate (topic to be revealed closer to the meeting).

For more details on speaker biographies, program and registration fees please visit www.asi2011.org. You can also follow us on Facebook (http://www.facebook.com/group.php?gid=119699538051113). The abstract submission deadline is 30th September 2011.

We are looking forward to seeing you in Adelaide this December.

Gabriela Minigo
on behalf of the ASI2011 Organising Committee

ASI STUDENT NEWS

Hi everyone!

We are getting excited and beginning to count down the days to ASI 2011, in Adelaide on 15th December. This year we will have our student function at the Adelaide Rowing Club with a BBQ and some alcoholic beverages supplied. All the international speakers are invited to join us, so take this great opportunity to form new social and scientific networks. Also, nothing is better than giving you a "retreat" as a reward for all the hard work undertaken throughout 2011 for our PhD and Honours studies. Like last year, the student function will be a night guaranteed to be full of fun.

We would like to make the most of our Student Members of the Australasian Society of Immunology Facebook and maximise student discussion and networking. If you have attended or plan to attend any awesome conferences, in any field, national or international, please post details on our student Facebook, so our student members can be made aware of these events and potentially attend. We hope this might expose conferences that might not have otherwise been known about, and possibly reveal whether other ASI members are planning to attend.

We are looking forward to seeing you all in Adelaide in December for ASI 2011!

Kiwi and Kate

P.S. Remember to buy tickets for the Student Function when registering! And remember, early Post Docs and Research Assistants are more than welcome!

Wai-Yan (Kiwi) Sun
waiyan.sun@imvs.sa.gov.au
Kate Parham
kate.parham@imvs.sa.gov.au

Sustaining Membership

ASI Inc acknowledges the support of the following sustaining member:

• Jomar Bioscience

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.

Gabrielle Belz, Editor-in-Chief
Immunology and Cell Biology

Contributions sought for the ASI online immunology quiz

As part of World Day of Immunology events, 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.

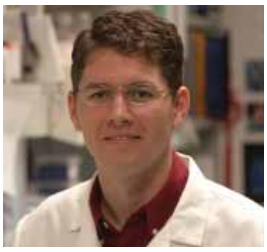
If you would like to contribute any multiple choice questions for either the general quiz or an advanced version, please send them to Judith Greer at j.greer@uq.edu.au.

THE ASI VISITING SPEAKER PROGRAM 2011

Dr Pam Schwartzberg
National Human Genome Research Institute, NIH, Bethesda, MD, USA

Unfortunately, Dr Schwartzberg's visit planned for August has been postponed to 2012.

SEPTEMBER:



Dr Shane Crotty
Vaccine Discovery Division, La Jolla Institute for Allergy and Immunology, USA

Dr Crotty's research focus is on immune system memory, with particular interest in the roles of these mechanisms in human vaccines and protection from infectious diseases. By better understanding these processes, Dr Crotty hopes new and better vaccines can one day be developed, particularly against deadly diseases like malaria, West Nile virus and tuberculosis, where no good vaccines currently exist.

Dr Crotty received his BSc in Biology from the Massachusetts Institute of Technology (MIT) in 1996. He also received a BSc in Writing from MIT the same year. Dr Crotty undertook graduate work in virology at the University of California, San Francisco in the Program in Biological Sciences. There he discovered the mechanism of action of the antiviral drug ribavirin, widely used to treat chronic hepatitis C infections. This was important for the future development of new drugs that function like ribavirin but much better. Dr Crotty earned his PhD in Biochemistry and Molecular Biology in 2001. He then pursued postdoctoral work at the Emory University Vaccine Center with Dr Rafi Ahmed from 2001 to 2003, studying aspects of the generation and maintenance of immune memory after viral infections. In 2003, he accepted a faculty position at LIAI.

Dr Crotty was also recently named a Pew Scholar, marking him as one of the most promising young scientists in the USA today. This distinction was given to only 14 other researchers in the USA in 2005 and is coupled with a grant to aid Dr Crotty in pursuing his research goals.

Selected recent publications:

1. Choi YS, Kageyama R, Eto D, Escobar TC, Johnston RJ, Monticelli L, Lao C, Crotty S.ICOS Receptor Instructs T Follicular Helper Cell versus Effector Cell Differentiation via Induction of the Transcriptional Repressor Bcl6. Immunity. 2011 Jun 1.
2. Salek-Ardakani S, Choi YS, Rafii-El-Idrissi Benhnia M, Flynn R, Arens R, Shoenberger S, Crotty S, Croft M, Salek-Ardakani S. B cell-specific expression of B7-2 is required for follicular Th cell function in response to vaccinia virus. J Immunol. 2011 May 1;186(9):5294-303.
3. Eto D, Lao C, DiToro D, Barnett B, Escobar TC, Kageyama R, Yusuf I, Crotty S.IL-21 and IL-6 are critical for different aspects of B cell immunity and redundantly induce optimal follicular helper CD4 T cell (Tfh) differentiation. PLoS One. 2011 Mar 14;6(3): e17739.
4. Follicular helper CD4 T cells (TFH). Crotty S. Annu Rev Immunol. 2011 Apr 23; 29:621-63.
5. Yusuf I, Kageyama R, Monticelli L, Johnston RJ, Ditoro D, Hansen K, Barnett B, Crotty S.Germinal center T follicular helper cell IL-4 production is dependent on signaling lymphocytic activation molecule receptor (CD150). J Immunol. 2010 Jul 1; 185(1):190-202.
6. Poholek AC, Hansen K, Hernandez SG, Eto D, Chandele A, Weinstein JS, Dong X, Odegard JM, Kaech SM, Dent AL, Crotty S, Craft J.In vivo regulation of Bcl6 and T follicular helper cell development. J Immunol. 2010 Jul 1;185(1):313-26.
7. Crotty S, Johnston RJ, Schoenberger SP. Nat Immunol.Effectors and memories: Bcl-6 and Blimp-1 in T and B lymphocyte differentiation. 2010 Feb;11(2):114-20. Epub 2010 Jan 19.
8. Benhnia MR, McCausland MM, Laudenslager J, Granger SW, Rickert S, Koriazova L, Tahara T, Kubo RT, Kato S, Crotty S. Heavily isotype-dependent protective activities of human antibodies against vaccinia virus extracellular virion antigen B5. J Virol. 2009 Dec;83(23):12355-67.
9. Johnston RJ, Poholek AC, DiToro D, Yusuf I, Eto D, Barnett B, Dent AL, Craft J, Crotty S.Bcl6 and Blimp-1 are reciprocal and antagonistic regulators of T follicular helper cell differentiation. Science. 2009 Aug 21;325(5943):1006-10.
10. Kawakami Y, Tomimori Y, Yumoto K, Hasegawa S, Ando T, Tagaya Y, Crotty S, Kawakami T. Inhibition of NK cell activity by IL-17 allows vaccinia virus to induce severe skin lesions in a mouse model of eczema vaccinatum. J Exp Med. 2009 Jun 8;206(6):1219-25.

Melbourne – 21-26 September (IgV meeting)
Canberra – 27 September
Sydney – 28 September

Visit co-ordinated by Steve Turner (University of Melbourne)

OCTOBER:

Professor Emil R. Unanue, MD
Washington University School of Medicine, St Louis. USA

Details on Professor Unanue's contributions were published in the June 2011 issue of the newsletter.

Sydney – 3-4 October
Canberra – 5, 6 October
Melbourne – 7-10 October
Brisbane – 10 October

Visit co-ordinated by José Villadangos (WEHI)

NOVEMBER:

Dr Warren J. Leonard
Chief, Laboratory of Molecular Immunology, National Heart Lund and Blood Institute, National Institutes of Health, Bethesda, MD, USA

"My early work focused on the characterization and cloning of the human receptor for IL-2. This led to the identification of the IL-2 receptor b chain and demonstrating that the g chain was mutated in humans with X-linked severe combined immunodeficiency. This in

turn led to studies demonstrating that the IL-2 receptor g chain was in fact shared by multiple cytokines, so that we named this critical receptor component as the common cytokine receptor g chain, g_c. g_c is now known to be shared by the receptors for IL-2, IL-4, IL-7, IL-9, IL-15, and IL-21. We broadly study this family of cytokines and the closely related cytokine thymic stromal lymphopoietin (TSLP), which shares a receptor component with IL-7. Our major work relates to the biology, signaling, and molecular regulation of these critical cytokines. We are driven by understanding basic molecular mechanisms using state of the art genome-wide technologies and in vivo models and also seek to elucidate the roles of the cytokines in health and disease. We have broadly contributed to studies that connect these cytokines to allergy, immunodeficiency, autoimmunity, and cancer."

Selected recent publications:

1 Kashyap M, Rochman Y, Spolski R, Samsel L, Leonard WJ. Thymic stromal lymphopoietin is produced by dendritic cells. J Immunol. 2011 Aug 1;187(3):1207-11.

2 Wang L, Yu CR, Kim HP, Liao W, Telford WG, Egwuagu CE, Leonard WJ. Key role for IL-21 in experimental autoimmune uveitis. Proc Natl Acad Sci U S A. 2011 Jun 7;108(23):9542-7.

3 Publicover J, Goodsell A, Nishimura S, Vilarinho S, Wang ZE, Avanesyan L, Spolski R, Leonard WJ, Cooper S, Baron JL. IL-21 is pivotal in determining age-dependent effectiveness of immune responses in a mouse model of human hepatitis B. J Clin Invest. 2011 Mar 1;121(3):1154-62.

4 Rochman Y, Kashyap M, Robinson GW, Sakamoto K, Gomez-Rodriguez J, Wagner KU, Leonard WJ. Thymic stromal lymphopoietin-mediated STAT5 phosphorylation via kinases JAK1 and JAK2 reveals a key difference from IL-7-induced signaling. Proc Natl Acad Sci U S A. 2010 Nov 9;107(45):19455-60.

5 Kwon H, Thierry-Mieg D, Thierry-Mieg J, Kim HP, Oh J, Tunyaplin C, Carotta S, Donovan CE, Goldman ML, Tailor P, Ozato K, Levy DE, Nutt SL, Calame K, Leonard WJ. Analysis of interleukin-21-induced Prdm1 gene regulation reveals functional cooperation of STAT3 and IRF4 transcription factors. Immunity. 2009 Dec 18;31(6):941-52.

6 Rochman Y, Spolski R, Leonard WJ. New insights into the regulation of T cells by gamma(c) family cytokines. Nat Rev Immunol. 2009 Jul;9(7):480-90.

7 Spolski R, Leonard WJ. Cytokine mediators of Th17 function. Eur J Immunol. 2009 Mar;39(3):658-61.

8 Rochman Y, Leonard WJ. The role of thymic stromal lymphopoietin in CD8+ T cell homeostasis. J Immunol. 2008 Dec 1;181(11):7699-705.

9 Liao W, Schones DE, Oh J, Cui Y, Cui K, Roh TY, Zhao K, Leonard WJ. Priming for T helper type 2 differentiation by interleukin 2-mediated induction of interleukin 4 receptor alpha-chain expression. Nat Immunol. 2008 Nov;9(11):1288-96.

10 Spolski R, Kashyap M, Robinson C, Yu Z, Leonard WJ. IL-21 signaling is critical for the development of type I diabetes in the NOD mouse. Proc Natl Acad Sci U S A. 2008 Sep 16;105(37):14028-33.

Melbourne – 3-7 October
Brisbane – 9 October
Sydney – 10-12 October

Visit co-ordinated by Annie Xin (WEHI)

DECEMBER:

Professor Astrid Westendorf
Institut für Medizinische Mikrobiologie , Universitätsklinikum Essen, Germany

"In the course of my scientific career I have been intensively involved with mechanisms of systemic and mucosal tolerance and their significance for the pathogenesis of autoimmunity and mucosal inflammation. The gastrointestinal tract is one of the major sites of immunological challenge to the host immune system. The host must be able to provide protective immune responses against invading pathogenic microorganisms while, at the same time, specifically not activating these mechanisms in response to dietary antigens or the commensal microflora. Therefore, immune reactions in the intestine must be tightly regulated to ensure induction of protective and not pathologic responses. The research interests of my group include the molecular and functional characterization of immune cells involved in intestinal homeostasis und and how this homeostasis breaks down in inflammatory bowel diseases. We have a particular interest in T cell: Dendritic cell and T cell: epithelial cell interactions in the intestine and how these influence the balance between effector and regulatory T cells responses. We generated transgenic mouse models of intestinal inflammation and colon cancer to study the crosstalk of immune cells in the gut and combine the results with studies that analysis immune responses in inflammatory bowel disease and colon cancer patients. In addition, we are interested in the role of non-biodegradable nanoparticles as additives in food and whether these particles influence the development of intestinal inflammation and colon cancer."

Selected recent publications:

1 Fleissner D, Frede A, Knott M, Knuschke T, Geffers R, Hansen W, Dobos G, Langhorst J, Buer J, Westendorf AM. Generation and function of immunosuppressive human and murine CD8(+) T cells by transforming growth factor-β and retinoic acid. Immunology. 2011 Jun 29. doi: 10.1111/j.1365-2567.2011.03469.x.

2 Fleissner D, Hansen W, Geffers R, Buer J, Westendorf AM. Local induction of immunosuppressive CD8+ T cells in the gut-associated lymphoid tissues. PLoS One. 2010 Oct 20;5(10):e15373.

3 Sokolova V, Knuschke T, Kovtun A, Buer J, Epple M, Westendorf AM. The use of calcium phosphate nanoparticles encapsulating Toll-like receptor ligands and the antigen hemagglutinin to induce dendritic cell maturation and T cell activation. Biomaterials. 2010 Jul;31(21):5627-33.

4 Hansen W, Westendorf AM, Toepfer T, Mauel S, Geffers R, Gruber AD, Buer J. Inflammation in vivo is modulated by GPR83 isoform-4 but not GPR83 isoform-1 expression in regulatory T cells. Genes Immun. 2010 Jun;11(4):357-61.

5 Westendorf AM, Fleissner D, Groebe L, Jung S, Gruber AD, Hansen W, Buer J. CD4+Foxp3+ regulatory T cell expansion induced by antigen-driven interaction with intestinal epithelial cells independent of local dendritic cells. Gut. 2009 Feb;58(2):211-9.

6 Haile LA, von Wasielewski R, Gamrekelashvili J, Krüger C, Bachmann O, Westendorf AM, Buer J, Liblau R, Manns MP, Korangy F, Greten TF. Myeloid-derived suppressor cells in inflammatory bowel disease: a new immunoregulatory pathway. Gastroenterology. 2008 Sep;135(3):871-81, 881.e1-5.

7 Reinwald S, Wiethe C, Westendorf AM, Breloer M, Probst-Kepper M, Fleischer B, Steinkasserer A, Buer J, Hansen W. CD83 expression in CD4+ T cells modulates inflammation and autoimmunity. J Immunol.

2008 May 1;180(9):5890-7.
8 Veldhoen M, Hirota K, Westendorf AM, Buer J, Dumoutier L, Renauld JC, Stockinger B. The aryl hydrocarbon receptor links TH17-cell-mediated autoimmunity to environmental toxins. Nature. 2008 May 1;453(7191):106-9.
9 Ukena SN, Singh A, Dringenberg U, Engelhardt R, Seidler U, Hansen W, Bleich A, Bruder D, Franzke A, Rogler G, Suerbaum S, Buer J, Gunzer F, Westendorf AM. Probiotic Escherichia coli Nissle 1917 inhibits leaky gut by enhancing mucosal integrity. PLoS One. 2007 Dec 12;2(12):e1308.
10 Stecher B, Robbiani R, Walker AW, Westendorf AM, Barthel M, Kremer M, Chaffron S, Macpherson AJ, Buer J, Parkhill J, Dougan G, von Mering C, Hardt WD. Salmonella enterica serovar typhimurium exploits inflammation to compete with the intestinal microbiota. PLoS Biol. 2007 Oct;5(10):2177-89.

Perth – 7-9 December
Adelaide – 11-15 December (ASI 2011 Annual Meeting)
Melbourne – 16 December

Visit co-ordinated by Hubertus Jersmann, (University of Adelaide)

Upcoming Conferences

2nd International Conference on Immune Tolerance
23–25 October 2011
Amsterdam, Netherlands
www.immunetolerance.elsevier.com

5th Congress of the Federation of Immunological Societies of Asia Oceania (FIMSA 2012) –Translational Immunology in Health & Science
March 14–17, 2012
New Delhi, India
fimsa@fimsa2012.com
www.fimsa2012.com

V World Asthma & COPD Forum
April 21–24, 2012
New York, USA
info@wipocis.org
www.wipocis.org

Immunology 2012
May 4–8, 2012
Boston, USA
www.IMMUNOLOGY_2012™.com
infoaai@aai.org

15th International Congress of Immunology
August 22–27, 2013
Rome, Italy
ici2013@triumphgroup.it
www.ici2013.org

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


BRISBANE
IMMUNOLOGY
GROUP
Seminar
SERIES
Westpac Auditorium
E Floor, QIMR
9.00AM
Speakers and dates
1/08/2011 Frank Carbone, University of Melbourne
8/08/2011 Ian Frazer, UQ Diamantina Institute
29/08/2011 Matt Sweet, IMB, UQ
5/09/2011 Andreas Suhrbier, QIMR
12/09/2011 Melinda Christensen, MMRI
19/09/2011 Ash Haque, QIMR
26/09/2011 Simon Phipps, UQ
3/10/2011 Mark Smyth Peter, Mac Institute
10/10/2011 Jonathan Sprent, Garvan Institute
17/10/2011 Xinsheng Ju, MMRI
7/11/2011 Kieron Dunleavy, NCI/NIH
For information contact:
Rajiv Khanna: rajiv.khanna@qimr.edu.au
Mandie Quince: mandie.quince@qimr.edu.au
Ash Haque: ashraful.Haque@qimr.edu.au
Queensland Institute of Medical Research
ASI

HONORARY SECRETARY'S NEWS

Time has once again flown by and it is that time of the year already where we are getting excited about our annual meeting, and have to start thinking about abstracts to be submitted and travels organised. This year's ASI is to be held in Adelaide and the organising committee has put together a stellar program. Please see the article in this newsletter and visit the meeting website for more details. I'm looking forward to seeing you in Dec in Adelaide!

International Travel Awards

The International Travel Awards (ITA) are one of our major ways to support our early career membership. Recipients of ITAs do not only benefit from the attendance of the conference but we also provide the opportunity to visit labs to establish or strengthen collaborations, learn techniques or find their next (or first) postdoctoral position. The reports provided to the newsletter by our successful applicants are full of enthusiasm and fun and, in my eyes, speak for themselves for the benefits and value of the travels undertaken. General guidelines for applications can be found on our website.

Applications are judged by the quality of the abstract, the conference attended, the CV and the career benefit of the proposed travel. The number and the purpose of additional visits to research labs organised prior to travel and application are strongly considered in the career benefit section.

The next round for ITA will be called for in October for travels in the first half of 2012. March 2012 sees the 5th Congress of the Federation of Immunological Societies of Asia Oceania (FIMSA) to be held in New Delhi, India (www.fimsa2012.com) and we strongly encourage our members to consider attending this conference. A number of travel awards to attend the FIMSA congress will be awarded and are considered within our normal ITA scheme for postgrad and postdoctoral applicants.

The ITA recipients from April 2011 (for travel in this second half of 2011) are:
Postgrad: Sau Kuen Lee (Candice) (ANU), Jessica Stolp (Garvan), Alison West (PeterMac)
Postdoc: Maria Kaparakis-Liaskos (Monash Institute), Katja Luethje and Ingela Vikstrom (both WEHI)

Congratulation to all winners and I'm looking forward to read about your travel adventures in the newsletter!

Changes to the ASI Senior Travel Awards (Gordon Ada and Jacques Miller Awards)

The Gordon Ada and Jacques Miller Senior Travel Awards were established in 2009 and were designed to support and promote senior and mid career members of ASI who wished to travel overseas for career related travel. The scope of the travel was rather broadly defined and we had some wonderful examples how these awards could be used, such as a sabbatical in a collaborator's lab, conference travel combined with visits to collaborator's lab, a sabbatical to polish technical skills combined with conference attendance as for this year's award the teaching at an overseas course combined with a research visit at a collaborator's lab.

The awards are open to anyone who has been a full member of ASI for at least five consecutive years prior to application.

To better reflect the purpose of the awards, ASI Council has decided to rename the awards. While the overall scope of the awards has not changed, with this measure we hope to reach out to the early and mid career researchers more efficiently.

From 2012 the awards will be known as:
ASI Gordon Ada Career Development Award
ASI Jacques Miller Senior Investigator Award

We'll describe the changes in more detail in the next newsletter.

The next round for the awards will be called for in April 2012 for travel between July 2012 and June 2013. We are looking forward to receiving your applications.

The recipient of the 2011 Jacques Miller Senior Travel Award is Natkunam Ketheesan (JCU) who will conduct a "Short Course in Medical Immunobiology" at the University of Jaffna, Sri Lanka, in conjunction with travel to Singapore to undertake a research project at the Genome Institute of Singapore. Congratulations to Natkunam!

Upcoming Nominations/Elections

A number of Council positions are coming up for nomination/election at the end of the year.

We have two of the 'big' positions to fill: Vice President, whose term is a total of 4 years (Vice President for 1 year, President for 2 years, Past President for 1 year) and Honorary Secretary (3 year term). Both positions are members of the ASI Executive.

Stu Tangye's term in NSW is coming to an end too and we are looking for a new NSW State Councillor. This position is part of the ASI Voting Council.

Applicants for the above positions must be nominated by two ASI members.

The VSP Co-ordinator, responsible for the increasingly active and successful Visiting Speakers Program (thanks to our current co-ordinator Alejandro Lopez) also comes up for nomination. This is a 3 year term, non-voting position on Council and interested applicants can self nominate.

The call for nomination with details for all positions mentioned here will go out in September.

The productive operation of Council is based on the work each individual Council member contributes. Please take a minute or two to think about whether you'd like to contribute to the further success of ASI by putting your hand for a position on ASI Council and don't hesitate to contact me or the respective councillor if you have any questions about the positions. I also encourage anybody interested to nominate for any of the positions to read the article in the last newsletter (June 2011) describing some of the responsibilities and duties of being on ASI Council.

As always, don't forget that the ASI Council is there to support its members. Please do not hesitate to contact me (heinzel@wehi.edu.au) with any queries or suggestions that you might have.

Susanne Heinzel
Hon. Secretary

Careers in Medical Research in Australia

David Whiteman* and Rajiv Khanna**
Queensland Institute of Medical Research, Brisbane (Qld)

Medical research is an exhilarating, rewarding career that offers enormous opportunities for motivated scientists. But sadly, the harsh economic reality is that only a small proportion of all scientists with doctorates can be supported as independent investigators through the various fellowship schemes offered by funding bodies. A recent seminar at QIMR provided students and post-docs with information about the career pathways for medical researchers in Australia, with a particular focus on the NHMRC support schemes. The aim was to provide factual information and answer questions relating to career development. A key point was that independent research is just one of many possible career pathways open to research scientists – many will wish to take their qualifications and skills into other branches of science, including academia, industry, government service, administration, independent consulting, commercialisation – the list is long!

For those intending to pursue the 'independent investigator pathway', a few key points need to be recognised. Firstly, medical research is a long haul career that may not suit the impatient. Figure 1 describes the mean age of successful applicants to the various people support schemes offered through NHMRC.

Secondly, medical research is extremely competitive, and becoming more so. Figures 2 and 3 show the success rates (as well as number of applicants and numbers of successful applicants) for the early-career (post doc) fellowships and career development fellowships respectively. The numbers are sobering.

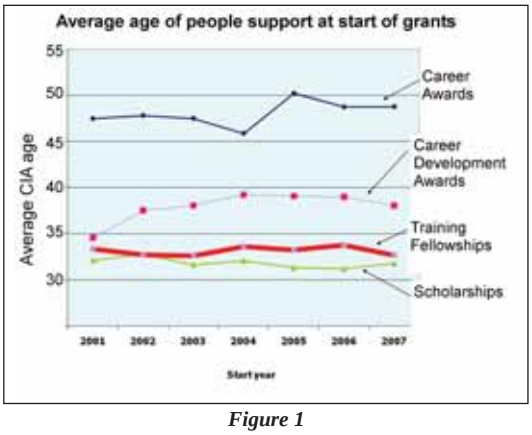


Figure 1

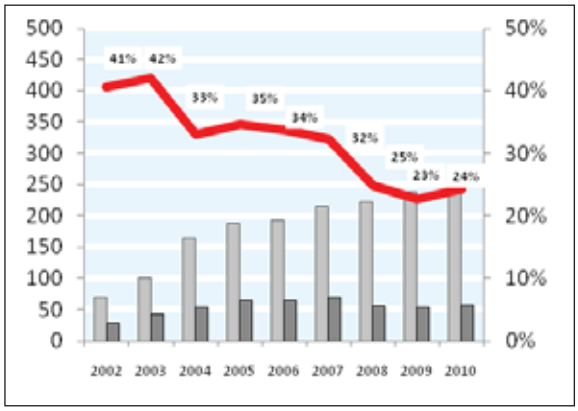


Figure 2
NHMRC early carer fellowship scheme. Numbers of applicants (light column), number of successful applicants (dark column) and overall success rate (line) by calendar year.

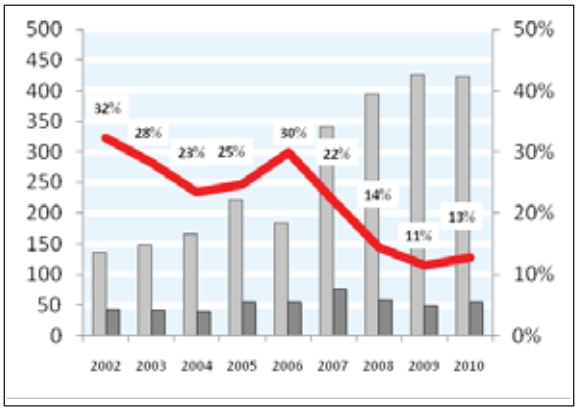


Figure 3
NHMRC career development fellowship scheme: Number of applicants (light column), numbers of successful applicants (dark column), and overall success rate (line) by calendar year.

Potential indicators of successful applications

Although it is difficult to precisely predict which application will be successful, we have collated data from various applications considered for postdoctoral fellowships and some critical indicators of success are (a) total number of publications, (b) number of first author publications and (c) quality of publications (e.g. impact factor). Our data analysis of numerous successful and unsuccessful postdoctoral fellowship applications is shown in Figure 4. It is important to point out that these data are not a final indicator of success but provide some basic parameters for a potentially successful application. It is also important to note that our analysis has shown that there is strong correlation between the quality of publication and other indicators of track record. (Other indicators include academic record, conference presentations, prizes & awards, grants/scholarships, postgraduate degrees.) (Figure 5)

A similar analysis was performed by the QIMR Mentoring Committee in 2009 to identify the predictors of success in the NHMRC Career Development Awards (now Career Development Fellowships). The Committee reviewed 25 CDA

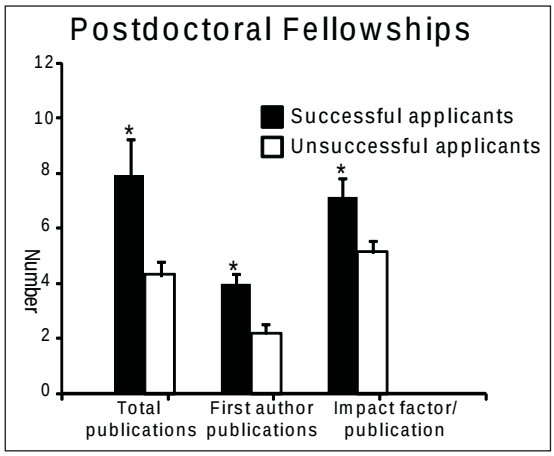


Figure 4
Analysis of track record of post doctoral applicants
**** Significant difference***

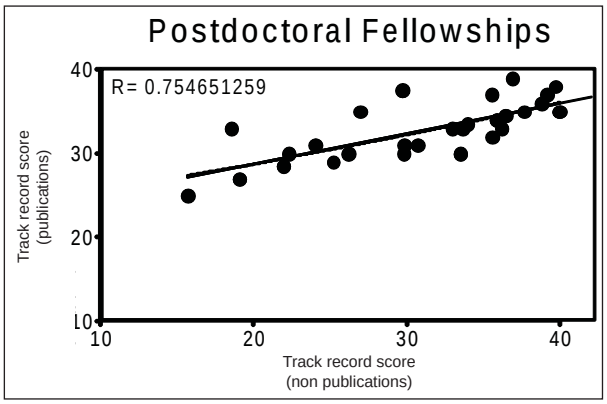


Figure 5
Correlative analysis of scores for publications and non-publication track record

Item	Unfunded	Funded	p-value
	Median	**Median**	
IF>10	**0**	**1**	***0.02***
Total research pubs	**13**	**18**	***0.05***
First author pubs	**4.5**	**9**	***0.03***
Last author pubs	**1**	**1**	0.51
Invited reviews	**2.5**	**1**	0.54

Table 1

applications from QIMR scientists between 2006-2008. While the sample size was small, it was notable that successful applicants for CDA had significantly more publications overall, as well as a greater number of high impact papers and first-author papers than unsuccessful applicants (see Table 1). Successful CDA applicants were also more likely to have secured their own funding, although this was not statistically significant in the small sample.

So, what can you do to maximise your chances of success? Work hard, publish well, develop your grant writing skills, be aware of the 'benchmarks' for success and promotion and work towards them. For example, in addition to the above analyses of small samples, the NHMRC now publishes (non-binding) guidelines as to the characteristics for success in each of their early fellowship schemes – potential applicants would be well-advised to be acquainted with these. Plan your next career move early, and then take positive steps to make the vision become reality. Itemise the tasks you need to complete, and when, to achieve your next career goal. Talk to senior colleagues and find one or more mentors who can provide impartial, credible advice regarding your career strategies. All of these things will help you climb the fellowship ladder. And finally, remember that a fulfilling career in science is not determined by success in fellowship schemes, but rather in embracing the spirit of discovery that motivates us to keep asking "Why?".

Authors:
* Prof. David Whiteman is the Co-ordinator of the Department of Population Health and heads Cancer Control Group at the Queensland Institute of Medical Research, Brisbane (Qld). Prof. Whiteman is supported by the ARC Future Fellowship.
Email: david.whiteman@iqmr.edu.au

** Prof. Rajiv Khanna is the Director of Australian Centre for Vaccine Development and heads Tumour Immunology Laboratory at the Queensland Institute of Medical Research, Brisbane (Qld). Prof. Khanna is supported by the NH&MRC Senior Principal Research Fellowship.
Email: rajiv.khanna@qimr.edu.au

ASI Councillors' News

N.S.W. News

ASI-NSW Branch has been busy organising the annual combined ASI NSW/ACT retreat, as well as visits by several International Invited Speakers.

The dates for this year's joint ASI NSW/ACT retreat have been set for Thursday 25th and Friday 26th August 2011, and once again it will be held at Peppers Craigieburn Conference Centre and Resort in Bowral. We have been fortunate to be able to invite several prominent immunologists to this meeting. Keynote presentations will be given by Dr Cecile King (from the Garvan Institute) and A/Prof David Tarlinton (WEHI; current ASI President). A new initiative for this year's meeting will be the inclusion of "educational/tutorial"-type talks on emerging/cutting edge technologies. These will be presented by Prof Chris Goodnow and Dr Julia Ellyard (JCSMR), who will cover Deep/Next Generation sequencing, and Dr Tri Phan (Garvan Institute) who will discuss Intravital/2-photon imaging, respectively. For this meeting, we have been very fortunate to have ongoing sponsorship from Miltenyi (the major sponsor), Becton Dickinson, and Jomar/eBioscience, as well as StemCell Technologies, Invitrogen, and Australian Biosearch. There will be prizes for best presentations by students and early career scientists – so make sure you come along!

Over the next few months, Sydney will be hosting several visits by invited speakers as part of the ASI International Visiting Speakers Program. The dates to lock into your calendar are:

Wednesday September 28
Dr Shane Crotty, La Jolla Institute of Allergy and Immunology, California, USA
Title: Differentiation and function of T follicular helper cells

Tuesday 4 October
Prof. Emil Unanue, Washington University, St Louis, USA

Thursday 10 or Friday 11 November (exact date will be confirmed very soon)
Dr Warren Leonard, National Heart Lung and Blood Institute, National Institutes of Health, USA

All of these seminars will be held at the Garvan Institute.

Stu Tangye
Councillor

W.A. News

The local West Australian ASI committee has grown in the last few months with the addition of Allison Imrie and Chris Peacock to our group. We are busy at the moment organising the next Perth Immunology Group (PIG) scientific meeting. The meeting will be held at the Flying Squadron Yacht Club on the foreshore of the Swan River on 20th and 21st October. We have been lucky to secure as keynote speakers, Dr Stuart Tangye from Garvan Institute of Medical Research and Dr Steve Turner from the Department of Microbiology and Immunology at the University of Melbourne. A range of local speakers from WA have also been invited, we will be able to announce the full list of invited speakers soon. We will also be calling for abstract submission soon, so keep a look out for flyers announcing the opening and closing dates for abstract submission.

In the past the PIG meeting has been very successful and our aim is to produce a relaxed but scientifically full and exciting program. So please keep the 20th and the 21st of October free and come along and network with local WA immunologists.

Finally, as part of the ASI visiting speakers program, Professor Astrid Westendorf will be in Perth from 7 - 9 December this year. She will be giving a seminar whilst here and will also be available to visit local laboratories. Please contact me if you would like to host Astrid.

Alec Redwood
Councillor

N.Z. News

NZ ASI/Immunet Meeting 2011
NZ ASI branch meeting was held on 30 June and 1 July 2011 at Victoria University of Wellington in Wellington. We had a vibrant and well-attended meeting with over 114 registrants from all over the country and worldwide. This year we expanded the number of student presentations to 25, with all competing for the Buck Award for the best student presentation. Martin Hunn (Malaghan Institute) took first prize and Lindsay Ancelet (Malaghan Institute), Emily Waugh (University of Otago), and Natalie Lorenz (University of Auckland) all tied for second place. Two new prizes were introduced this year and were named after important New Zealand immunologists, Barbara Heslop and John Marbrook. Elizabeth Forbes-Blom (Malaghan Institute) was awarded the Heslop Award for the best presentation by a postdoctoral fellow and Fenella Rich (Malaghan Institute) the Marbrook award for the best presentation by a research officer.

Additionally, at NZ ASI 2011 we celebrated the history of New Zealand immunology by establishing the Jim Watson Oration, akin to the Burnet Oration during the annual ASI meeting. This inaugural lecture was delivered jointly by Margaret Baird and John Fraser; each covering the history and development of immunology in New Zealand from the South Island (Margaret) and North Island (John) perspective.

Future NZ ASI/Immunet Meetings
Planning for NZ ASI 2012 has already begun. It is to be held in Dunedin after which New Zealand will host ASI 2013 in Wellington. The NZ ASI membership discussed the future of our branch meetings in great depth at the AGM and, in particular, the possibility of holding the branch meeting during Research Week at the Queenstown Molecular Biology Meeting. The membership decided to trial this proposal in 2014 and, if successful, this arrangement may be incorporated into the schedule for hosting the NZ ASI conference. Currently, the branch meeting cycles between the main centres: Wellington, Dunedin, and Auckland.

Anne LaFlamme
Councillor

Victorian News

The Immunology Group of Victoria
A branch of the Australasian Society for Immunology

In August, the IgV Winter Seminar was held at the Burnet Institute. Warwick Britton (Centenary Institute) gave a very interesting talk about the immunology of tuberculosis and was inundated with questions from the appreciative audience. Thanks to Warwick for agreeing to participate in this event, and to Rose FFrench (Burnet) and Phil Darcy (Peter Mac) who organised the day (which included some excellent wine and cheese to enjoy afterwards!). Miltenyi Biotech sponsored the IgV Winter Seminar and they also deserve a great vote of thanks for supporting this initiative – please keep in mind their support (and that of other ASI/IgV sponsors) when deciding where to purchase your reagents.

Next on the radar for local ASI members should be the annual meeting to be held in Geelong from September 22-23. This meeting has been recently held in the Yarra Valley and earlier in Beechworth, and we hope that by moving the venue around in this way, we make it easy for everyone involved in the field of Immunology to come along to the annual meeting on a regular basis. Of course, Tasmania is still a fair way from Geelong, but we have introduced subsidies to encourage our Tasmanian colleagues to come across and join in this important event on the IgV calendar. See the IgV website for more details about the meeting, including the many different prizes and awards on offer.

Lastly, it was great news that the Federal budget for research funding survived the Canberra razor-gang for another year. This was a great result in a climate where the government was looking for ways to cut the budget and it is a credit to those who participated in the Discovery Needs Dollars campaign that was initiated at the Walter and Eliza Hall Institute and supported by so many of our members. A great result, but we obviously cannot be complacent and need to keep showing the general public and the politicians who represent them (and us) how important medical research is and how vital it is that funding for this work continues to increase.

Stuart Berzins
Councillor

S.A./N.T. News

Don't miss out on this year's ASI Annual Meeting to be held in Adelaide, 11–15 December (2011). The organizing committee has been working hard to ensure that our meeting will be a success. We have an excellent array of top international speakers (Lisa Coussens, Richard Flavell, Michael Karin, Paul Kubes, Alberto Mantovani, Michel Nussenzweig, Ed Palmer, Shigeru Saito, Joachim Schultze, Megan Sykes and Andrew McKenzie). There is another exciting addition to our program: the inclusion of a Neuroimmunology Symposium. Prof. Bernhard Baune has secured two international speakers, Prof. Michal Schwarz and Prof. Raz Yirmiya, for this session. For more details please see Gabriela Minigos report in this newsletter.

On another note, the 7th Adelaide Immunology Retreat (AIR) for PhD students, Honours students and research assistants will be held at Warrawong Wildlife Sanctuary in September (2nd & 3rd). Prof. Jose Villadangos (WEHI) is our invited national speaker. A full report of the event will come out in the next edition of the newsletter. I would like to thank the AIR7 organising committee members – Cara Fraser, Erin Lousberg, Iain Comerfold, Sarah Brice, Anastasia Yu, Kate Parham, Kiwi Sun, Susan Christo, Siti Noordin and Sally Sun – for all their hard work and enthusiasm for the meeting. Also a BIG thank you to all our sponsors: Miltenyi, Sapphire Bioscience, Jomar, Uni SA, Adelaide Uni, Invitrogen, Biacore, AdeLab Scientific, DKSH, Geneworks, BD Biosciences and Genesearch. Without their generous financial support the event could not be held.

Finally, I would also like to remind members of the 5th Barossa Meeting: Cell Signalling and Molecular Medicine, to be held 23–26 November 2011 in the lovely Barossa Valley, South Australia. Themes include cancer, inflammation, immunity, therapeutic targets, non-coding RNA, signaling modules, ubiquitination, signaling architecture, bioactive lipids and developmental signals. This is another event not to miss out on as the Barossa Meetings have a reputation of providing a forum of excellent science amongst the idyllic setting of the Barossa vineyards. Please see flyer elsewhere in the newsletter.

Michele Grimbaldeston
Councillor

Contributions sought for the ASI Newsletter

You could win $200 !!

Deadline for the next issue : 1st November 2011

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

Travel Award Conference Reports

6th International Symposium on the Clinical Use of Cellular Products: Cellular Therapy 2011.

Erlangen, Germany, March 24–25, 2011

Sandro Prato
Walter and Eliza Hall Institute, Melbourne

The ASI Postdoctoral International Travel Award has given me the opportunity to attend this year's 6th International Cellular Therapy Symposium, which was held at the Universitätsklinikum Erlangen, on March 24-25. After this meeting, I travelled to the School of Cancer Sciences at University of Birmingham to present and discuss my research.

The conference, held every two years, was located in the charming Bavarian city of Erlangen, located 25km north of Nuremberg. Fifty oral speakers and over 100 poster presentations animated this forum. There were six sessions that covered topics spanning from basic research to clinical translation. These included Immune Effector T cells (T cells, NK cells), Regulatory cells (Tregs, Mesenchymal Stem Cells), Metabolism and Immunity, Cellular Therapy (Regulatory Issues and Clinical Application), Gene-based Cellular Therapy as well as Antigen Presenting Cells & Cancer Vaccination. With the exception of two sessions, all presentations were plenary.

The conference started with Prof. Hans Schreiber (University of Chicago) who gave a lecture on the specificity of the anti-tumour immune responses. Prof. Schreiber highlighted the specific requirements that cellular therapy must fulfil to achieve tumour eradication. In particular, he advocated that eradication of at least 9 logs of tumour-propagating cancer cells and the eradication of the tumour "bed" or stroma were a requisite to achieve successful therapeutic outcome. Following his presentation, I very much enjoyed the talk by A/Prof. Christian Münz (University of Zürich) who discussed the generation of a mouse with human immune system components as a pre-clinical model to study the immune control priming.

The remainder of the day was followed by a series of excellent presentations on the potential of NK cells for adoptive cell-based therapy as well as presentations on regulatory T cells and their role in suppressing anti-tumour immunity. Some of the presentations I found particularly interesting included Dr Jeffrey Miller (University of Minnesota) and his work on the adoptive cellular therapy with allogeneic NK cells in patients with refractory acute myeloid leukemia. His group tested different strategies to optimize NK cell expansion, a requisite he proposed is important for therapeutic efficacy. Dr A Cerwenka (DKFZ, Heidelberg, Germany) presented a comparison of gene expression profiling study between blood NK cells and tumour-infiltrating NK cells in mice. He showed that NK cells from tumour tissue had a signature of genes involved in cell inhibition and a downregulation of the chemokine receptor CXCR3. Meanwhile, in the session on Tregs, Prof. Kingston Mills discussed the potential of using siRNA targeted to TGF-β, which would block Regulatory T cells induction and increase anti-tumour immunity.

The second day of the conference included several highlights for me. Prof. Thomas Blankenstein (Institute of Immunology, Berlin) presented the generation of a transgenic mouse with a human TCR repertoire. He exploited this mouse model to identify pathogenic and therapeutic human TCR. Dr Immanuel Luescher (Ludwig Center for Cancer Research, Lausanne) presented data on a new strategy to identify enhanced affinity TCR for use in gene therapy of cancer. His findings revealed a narrow affinity window in which CD8+ T cells effector functions are enhanced and high affinity maintained. I was given the great opportunity to present my work in the final "Antigen Presenting Cells & Cancer Vaccination" session. My talk was very well received, and I in turn received valuable feedback.

Overall, this symposium has provided an excellent opportunity to attend all presentations and interact with several speakers expert in the field of adoptive cellular therapy. In addition, the subsequent seminar at the University of Birmingham offered a unique opportunity for me to interact with current experts in the field of tumour immunology, and to widen my professional network. I would like to sincerely thank the ASI for their support.

American Thoracic Society International Conference

Adam Collison
The University of Newcastle, NSW

In May 2011 I was fortunate to be able to attend the largest international conference in my field – the ATS annual meeting in Denver, Colorado.

Here I was exposed to a wide variety of research ranging from basic science through translational studies to large multi-centre clinical investigations. The sheer scope of the studies was enlightening and the seemingly endless poster sessions were a fantastic way to get a taste of new trends emerging within the larger research family.

The opening ceremony featured a talk by local physician Peter Hackett who gave an interesting address on his speciality of high altitude medicine.

The mini symposium on "miRNA and epigenic regulation of lung disorders" was particularly pertinent to my research interest in the role of miRNA in the allergic and infected airways. Here I heard from Benjamin Raby who gave a terrific overview of the development of non-coding genetics as a field and its emerging significance in our understanding of asthmatic disease. His suggestion that the field is moving from a reductionist framework to a more holistic view of the many interactions involved in the disease environment, along with some practical techniques, has proved helpful in allowing me to bring a new approach to my own array analysis.

The talks from Weiliang Qiu and Carrie Breton in the same session both highlighted the importance of site-specific CpG methylation. I found Carrie Breton's study on the impact of *in utero* cigarette smoke exposure particularly intriguing, particularly the parallels presented with multiple loci's within genes common with adult oxidative stress.

The scientific symposium on "The human microbiome and development of asthma and allergy" was another standout session of the conference for me. Here I heard from Gary Huffnagle who discussed the microbiota of the healthy human lung and cross talk between microbial populations within the airways and the gut through mucociliary clearance ultimately emptying the microbes cleared from the lung into the gastro intestinal tract. He also linked changes in GI tract epithelium in smoking models with those changes observed within the lung and suggested the luminal microbiome to be distinct to that of the mucosal microbiome in these compartments.

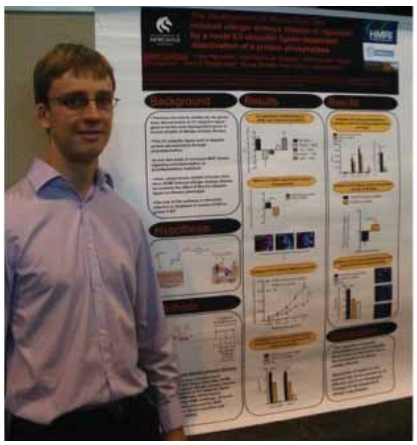
ATS opening ceremony

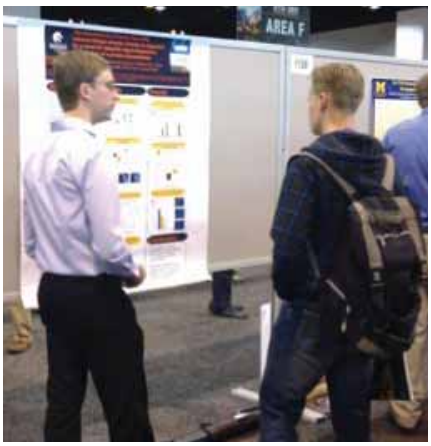
Hans Bisgaard presented his hypothesis that the microbiome may be responsible for altered early life immune development in cases of atopic mothers up to and possibly eclipsing the role of epigenetic factors. He presented compelling data sets demonstrating that the heritability of allergic diseases such as asthma is a combination of genetic susceptibility and the inherited microbiome.

Homer Boushey presented evidence that the source of SPF animals of the same strain can have a direct impact upon the results from allergy models due to altered profiles of the microbiota within the gut of these mice.

At the conclusion of the conference I visited Marc Rothenberg's lab at Cincinnati Children's Hospital. During this visit I presented my work on TRAIL signalling pathways. I was given access to array databases from their work with eosinophilic oesophagitis revealing some interesting preliminary data. I was also able to learn some of the mouse models they have established and these skills will enable us to further this collaboration in Newcastle.

My thanks to the ASI for your support. This trip was an exciting and enlightening time that I believe has opened several opportunities for the advancement of my research and career.





Adam with his poster at the ATS

Publications List

Congratulations to ASI members who have published their following work in the last three months (articles with an ePub date between April and June 2011)

Slocombe LL, Colditz IG. **A rapid colorimetric assay for measuring low concentrations of haemoglobin in large numbers of bovine plasma samples**. *Food and Agricultural Immunology* 2011; **22**(2)**:** 135.

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