N E W S L E T T E R

Australasian Society for Immunology Incorporated

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Introducing the Monash Antibody Technologies Facility

Daniel Layton
Monash University, Victoria

In many respects, antibodies have been the corner stone of medical and immunological research for the better part of the last century. As early as the late 1800s, serum from horses that had been inoculated with diptheria toxin was used to treat diptheria infection. Albeit unknowingly, this was one of the first successful accounts of antibody treatments in humans. At the same time, the first vaccines to rabies, tetanus and cholera were emerging, again with little knowledge as to the key mediators of the immunity they conferred. Numerous discoveries followed as to the nature and origin of antibodies, eventually leading to a publication in *Nature* in 1975 in which Kohler and Milstein demonstrated the generation of immortalized cell lines producing antibodies with a single specificity, what we all now know as monoclonal antibodies (mAbs). Awarded the Nobel Prize in 1984 for their work, few could have predicted how this discovery could have changed the landscape of immunological research. Monoclonal antibodies are now an absolute necessity in so many, if not all, immunology laboratories. However, with the advent of high throughput DNA analysis techniques and the publication of the genomes of so many species, the requirement for new mAbs is greater than ever. Added to which, with the use of mAbs as both diagnostics and therapeutics fast becoming a multi-billion dollar industry, it has become a race to generate validated high quality mAbs.

Through necessity comes innovation. The process of making a hybridoma is not only tedious but time consuming. Any given antibody project can take several months and requires screening hundreds or even thousands of samples to find the needle in the haystack, culminating in a very short timeframe during which the mAbs must be selected before they wilt and die. Attempting to do this on a scale that would satisfy the needs of the global community is not an easy task. The solution in the eyes of the Monash Antibody Technologies Facility (MATF) is robotics. In 2008, Monash University opened the world's first fully automated antibody production facility at the University's Clayton Campus, with funding from DIIRD, NCRIS and Monash University. The facility is home to 10 Tecan robotic platforms, five of which have robotic incubators attached. Using these robots, MATF has the capacity to undertake ~800 individual custom antibody projects a year with only three full-time laboratory staff. This in itself is an achievement as it has been proposed that one

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MATF staff: (LtoR) Prof. Edouard Nice, Dr Daniel Layton, Dr Caroline Laverty, Natasha Dodge, Bronwyn Briers, Jean Tang

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ASI Student Representative
Representative for Victoria to be advised

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

Grants are in, fellowship applications written, and gaunt researchers have been spotted making their way to the bench for the first time this year. That's good news but it's almost inconceivable that a quarter of the year has been consumed in the process. It's worth sparing a thought for those in our Society who manage to balance the demands of research and the grant-treadmill with very meaningful service to the ASI. On behalf of the membership I extend thanks and appreciation to the outgoing Councillors (Miles Davenport, Susanne Heinzel, Stuart Tangye and Nick King) and a welcome to our incoming Vice President Dale Godfrey, Hon. Secretary Rose Ffrench and NSW Councillor Marcel Batten.

I was very pleased to learn of Chris Parish's Honorary Life Membership of ASI. Chris has a long history of service to ASI, including a term as President in 2003-04 and, of course, as the extraordinarily successful Past Editor of ICB. Somehow he's managed to juggle those roles with a stellar research career and prolific patent development and commercialisation of his discoveries.

I continue to be impressed by the variety, depth and quality of work being published by our members. The willingness of members to submit their work to be recorded in the Newsletter seems to have increased although I can't be sure of the level of compliance. If you know of people who are missing out, please give them a prompt.

Remember, we are always happy to accept articles for the Newsletter and it's a great way to get exposure for post-docs and students in your lab.

Which brings me to the **winner of the best newsletter article for 2011**. It is my pleasure to announce that the cheque for $200 for the best article in 2011 goes to Oscar Haigh for his piece published in June on DNA vaccines and honouring Bob Tindle – well done Oscar!

Simon Apte

Monash Antibody Technologies Facility, cont.

full time researcher can generate 20-30 a year manually. In addition to the comprehensive array of robots, the facility is complemented by an ArrayJet Microarray Spotter, which we use as the primary antibody screen. The Antigen MicroArray (AMA) technology, which was licensed from the European Molecular Biology Laboratory (EMBL), has many advantages over traditional ELISA screening of hybridomas, in that it consumes far less of the researchers antigen. In most cases we will use less than 400µg of antigen for an entire project. It allows up to 18,000 hybridoma cell lines to be screened (MATF routinely screens 2000) in a short space of time and gives the flexibility to screen those antibodies against multiples targets, giving good control on specificity. The latter advantage is particularly useful when screening for phospho-specific or other post-translational modifications. Using alternative fluorescent tags, AMA can also identify antibody subtypes at the screening stage, which means the particularly problematic IgM isotypes can be avoided.

The lab currently consists of the director, two post-docs and three research assistants. I have asked each of them to give a bit of their background as well as their roles at MATF. Starting with my own.

Automated ELISA station: The ELISA platforms at MATF are capable of performing an entire ELISA from plate coating right through to absorbance measurements. We use these robots for both the serum screen to ensure an animal has reached sufficient antibody titre as well as a conformation screen of the supernatant.

Dr Daniel Layton: My immunological career started with a PhD in xenotransplantation tolerance at the CSIRO Australian Animal Health Laboratories. This was followed by a post-doc in allotransplantation tolerance research in the laboratory of Prof. Richard Boyd at Monash University. During this time I worked on a number of monoclonal antibody generation projects as well as used antibodies to improve the outcomes of tolerance induction regimes. During my first postdoctoral appointment I was offered the position at MATF as the Head of Antibody Development. My key roles at MATF include project design and implementation as well as the running of the day-to-day activities in the lab.

Dr Caroline Laverty: I studied at University College London (UCL) to obtain my PhD in physical-organic chemistry under Prof. Mike Abraham. Shortly after graduation I did a post-doctoral research project at Syngenta Agrochemicals, after which I moved to Pfizer as a Team Leader in the Drug Metabolism Automation Team where we were responsible for the development of a fully automated high throughput screening system for thousands of novel drug compounds. As part of an exciting life change, I moved to Australia and joined Monash University, firstly at the Centre for Drug Candidate Optimisation for two years and then the challenge of getting a fully automated facility for the production of monoclonal antibodies up and running took me to MATF in 2009.

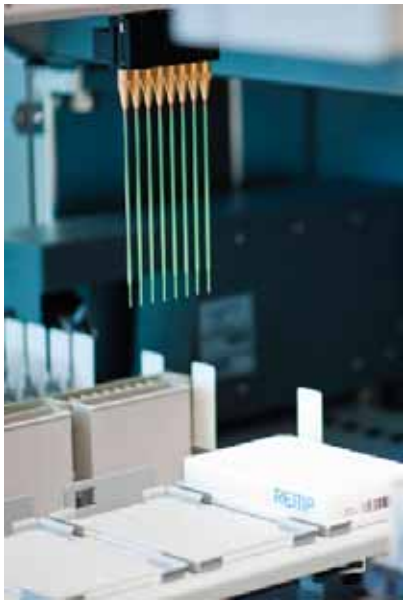
Jean Tang: I graduated with Bachelor of Science, majoring in Microbiology in 2006. After that I went on to do a post-graduate diploma research year in Victorian Infectious Diseases Reference Laboratory in Royal Melbourne Hospital working on Hepatitis B Virus. Studying microbes is my passion. I then started my first job with the Microbiological Diagnostic Unit, Public Health Laboratory within the University of Melbourne as a technical assistant. My duties were phage typing and serotyping of *Samonella Sp*. Following this position I joined the team at MATF in 2010. As a research assistant at MATF, my main role is the screening and identification of clones which produce high-affinity antibodies that binds to our target antigens using both Microarray Screening and the highly automated ELISA robot.

Automated Sample Storage: The REMP Small Sample Store is used to store all the samples required for an entire project, pre-aliquoted and ready for use. It has the advantage of being able to track each and every well of a 96 well plate using 2D barcoding and can deliver requested wells without removing the plate from the freezer.

Bronwyn Briers: In 2006, I graduated from the University of Tasmania with a Bachelor of Biotechnology with Honours in Medical Science. In my Honours year I researched the molecular cloning of the Zebrafish Homer homologue, a scaffolding protein implicated in axon pathfinding. After graduation, I was employed in the zebrafish aquarium at the Ludwig Institute of Cancer Research. From here, I was employed by Monash University, specifically the Gene Targeting Facility and Australian Phenomics Network. During this employment, I was responsible for the tissue culture of embryonic stem cell lines, and their associated methods to produce knock-out mice. This led to my position at MATF, where I am responsible for the tissue culture of the hybridoma cell lines created for antibody production.

Anup Nair: After completing an Engineering in Biotechnology degree, I joined Latrobe University to undertake a Masters in Biotechnology and Bioinformatics. My Masters project was related to the production, purification and characterization of monoclonal antibodies. I was successful in producing and mapping monoclonal antibodies against the embryonic protein Rex-1. Following my studies I worked for six months as a research assistant at Latrobe University for CRC, Australia. In this role I was working with the Antibody Production team of the CRC, which gave me the experience necessary to get the RA position at MATF. My role in MATF includes scheduling of projects, aliquoting antigens, fusions and initial screening of animal bleeds.

Automated Fusion Station: The robotic fusion platform can perform a hybridoma fusion from a single cell suspension. It is able to count both the spleen and myeloma cells and mix them in the appropriate ratios. It can also wash and centrifuge the cells and perform up to 8 fusions at a time.



MATF robots use both fixed and disposable tips for liquid handling operations

Prof. Edouard Nice: I am currently the Director of the MATF and Head of Clinical Biomarker Discovery and Validation at Monash University and the Ludwig Institute for Cancer Research. My research has centered on the purification and characterization of biologically significant proteins and peptides. In particular, I have developed a number of techniques for measuring protein-protein interaction, including antibody characterization. My role at MATF is managing the overall direction of the facility and co-ordinating efforts to enhance awareness of the facilities capability.

Our laboratory has generated new mAbs for researchers all over the world, ranging from large pharmaceutical organizations and reagent suppliers right through to academic research labs. Antibodies can be generated against recombinant proteins, native protein isolates, protein containing bands from an SDS-PAGE gel and synthetic peptides generated against immunogenic regions of the protein. Antibodies are raised in mice, rats or knock-out mice if the target protein is highly conserved. Although the main focus of MATF is custom mAbs, 2012 has seen an additional focus into custom ELISA development. Using either mAbs we have generated in the facility, or mAbs available from other sources, we have used our in-house knowledge and technology to develop high throughput ELISA development assays.

MATF has been involved in a number of large antibody production projects including antibodies developed for commercial use as well as antibodies for academic research. One of the key projects that was undertaken in 2011 was for a laboratory at CSIRO which needed ~30 new mAbs to a variety of target types. In this case, adding to the complexity, each antibody was required to bind to the native form of the protein on cells by flow cytometry. Despite its challenges, we were able to generate mAbs to the majority of targets, in many cases from peptide antigens.

Although there are challenges when automating laboratory processes of this nature, it simply would not be possible to generate the number of mAbs that MATF generates without robotics … or at least without many more staff. Now that this facility is fully operational, it is hoped that it will make a major contribution to the ongoing requirements for high quality antibodies both within Australia and globally.

Introducing the new ASI Honorary Secretary

A/Prof Rosemary Ffrench
Principal Fellow, Centre for Immunology, Burnet Institute

I have recently commenced in the position of Honorary Secretary of ASI, following on from four years as Secretary of the Immunology Group of Victoria. My research interests include human immunity to viral infections and vaccine development and testing. After completing my PhD in influenza immunology with Lorena Brown at Melbourne University, Department of Microbiology and Immunology, and a post-doc at NIH working on antigen processing and presentation, I returned to Australia where I focussed on HIV and HCV immunity and vaccine development.

I am currently the Head of the Viral Immunology Group at the Burnet Institute and have research projects in immunity to Hepatitis C virus infection, and development of the HIV MicroCube vaccine. I am also Director of the Burnet ImmunoMonitoring Facility, a NATA accredited facility I established to conduct immunological assessments of vaccines and immunotherapies for early phase human clinical trials. I hold a position as Adjunct Associate Professor in the Department of Immunology at Monash University and maintain a strong commitment to teaching of undergraduate and postgraduate students. I currently lecture and tutor in undergraduate immunology at Monash, and have supervised 26 honours, masters and PhD students to completion.

After four years as honours co-ordinator and three years as postgraduate co-ordinator and chair of the Research Students Committee, I have recently been awarded the title of Education Principal at the Burnet Institute. I am also a member of the Human Immunology group and the UROP Committee, and have contributed to the organisation of many immunological conferences and events, including the IgV Immunology Masterclasses, winter seminars and annual workshops. I am co-chair of the ASI 2012 annual scientific meeting to be held in Melbourne in 2012, and the International Symposium of HCV and Related Viruses in 2013.

I am very excited to take up the position of Secretary of ASI and hope to be able to make a significant contribution to the advancement of the Society and immunology in Australasia over the coming three years.

Teaching Immunology

ASI Education Special Interest Group
Kim Murphy

Teaching immunology is a rewarding experience and good teaching is critical if we want to produce PhD students who are knowledgeable in the field. Deciding what to teach in this rapidly changing field, and how to teach and assess can be difficult. Introducing change into curriculum is difficult and time consuming, and when there are grants to be written, the teaching can take a back seat.

In order to address some of these issues, the ASI Education Special Interest Group has been revived. In order to gauge interest in the group, an informal meeting was held at the recent Adelaide conference. Perhaps unsurprisingly, there were shared frustrations and difficulties encountered by those involved in teaching. Given that it is impossible to teach everything in an undergraduate degree, the problems of curriculum and curriculum development were raised. The introduction of 'threshold standards' and how these should be determined were considered. The issue of introducing research to students and how to run effective, practical classes for large groups of students was also a topic for discussion. Hopefully over time we can develop shared resources and ideas that can be shared to improve immunology teaching and learning in Australia and New Zealand.

One outcome from the meeting was a decision that all members interested in education should be surveyed to determine areas where they think an education special interest group can be of assistance. If you have received this, but not yet returned it, please do! If you are interested in education, please contact me (kim.murphy@monash.edu) to have your name added to our mailing list and to contribute your ideas to the group. We will have our first 'proper' meeting at the Melbourne ASI conference later this year – I look forward to seeing you there!

MINUTES OF 2011 ANNUAL GENERAL MEETING

Date Tuesday 13 December 2011
Time 12.45 to 2pm
Location Adelaide Convention Centre

1. WELCOME AND APOLOGIES
Apologies: Tony Basten, Ronald Walls, Senga Whittingham, Geoff Shellam, Margaret Gordon

ORDINARY BUSINESS

2. CONFIRMATION OF MINUTES AGM 2010
Resolution: That the AGM approves as correct the minutes of the 2010 Annual General Meeting on 7 December 2010 in Perth, published in the March ASI 2011 Newsletter.
Moved Alan Baxter, seconded Michelle Grimbaldeston. All in favour, resolution carried.

3. RECEIPT AND APPROVAL OF REPORT FROM COUNCIL.

3.1. **President's Report**
David Tarlinton reported that ASI had an outstanding year, culminating in an excellent meeting in Adelaide. He described how the changes to the Visiting Speaker Program criteria had increased uptake, although visiting speakers were still choosing mainly to visit Melbourne, Sydney, Canberra and Brisbane, with none to New Zealand and only one to Adelaide and Perth in 2011. Membership had increased to over 1000, which was a reflection on the vibrancy and enthusiasm of the State branches. ASI had spent more than $60K in travel support in the last year, raising the profile of young immunologists and providing career development for our members. ASI is also funding four people to attend the FIMSA conference in New Dehli (from n=10 applications) and provide lectures for the Advanced Immunology training course. While ASI was in an excellent financial position he said it was prudent to have some funds in reserve in anticipation of the ICI 2016. Some issues that were raised were management of the membership database, which resulted in some decline in membership. ASI Council were investigating moving membership renewal and curation on line and were negotiating with the Garvan Institute to host this. Council have approved spending up to $10K to facilitate this move. This is likely to be balanced by a decline in workload of the Secretariat. DT also reported on changes to the guidelines for organisation of the annual conferences, with the implementation of more oversight by the ASI meeting co-ordinator, specific guidelines for tendering and approval, earlier deadlines for notification of travel bursaries, and more weighting given to distance travelled in the scoring criteria.

DT also noted the changes to ASI Council, with Miles Davenport completing his term, and Dale Godfrey coming in as Vice President, and Rose Ffrench as Secretary. Sincere thanks and a gift were presented to the outgoing Honorary Secretary Susanne Heinzel, who has done a fantastic job of organising ASI and the Council meetings for the past three years.

3.2. **Secretary's Report**
Susanne Heinzel presented an update on the members of ASI Council (see table), thanking outgoing members Miles Davenport and Stuart Tangye, and welcoming new members Dale Godfrey, Rose Ffrench and Marcel Batten. She noted that World Day of Immunology co-ordinator Delia Nelson has recently stepped down and there will be a call for nominations for this position upcoming in early 2012. As Convenor of the ICI2016 meeting, Jose Villadangos also becomes part of the Non-voting Council. Alejandro Lopez will continue as co-ordinator of the ASI Visiting Speakers Program. There was no nomination received for the position of FIMSA Councillor vacated by outgoing president Nick King. Guna Karupiah still represents ASI on FIMSA Council, so there will be an additional call for nominations to FIMSA Council after the FIMSA meeting in March.

SH also presented an update on membership, which currently sits at n=1083, which was an increase of 71 on 2010 (see table over page).

Awards/Honours
Honorary Life Member
Prof Chris Parish of ANU was awarded Honorary Life Membership of ASI for his outstanding contribution to Australian Immunology and ASI, particularly recognising his extraordinary efforts as Editor of *Immunology and Cell Biology*.

ASI Jacques Miller Senior Travel Award
Natkunam Ketheesan (JCU)

International Travel Awards
1st round
Postgrad: Sau Kuen LEE (Candice), Jessica Stolp, Alison West
Postdoc: Maria Kaparakis-Liaskos, Katja Luethje, Ingela Vikstrom

2nd round
Post grad: Lindsay Ancelet, Kimberly Jones, Michael (Yik Chun) Wong
Postdoc: Erika Cretney, Elizabeth Forbes-Blom, Helen McGuire
FIMSA bursary: David Martino

Bursaries to attend ASI 2011 (see table over page)

Resolution: That the AGM approves the 2010-11 reports from Council.
Moved Alan Baxter, seconded Claudine Bonder. All in favour, resolution carried.

4. RECEIPT AND APPROVAL OF FINANCIAL STATEMENTS.

4.1. **Treasurer's Report**
Pablo Silveira presented the audited financial statements for ASI (copied below). There was an increase in total assets due to increases in conference income, predominantly from State Branch meetings and sponsorship. $62K was given out to members as travel awards, 28% of the total. Frank

CHANGE IN COMPOSITION OF COUNCIL

	Position	*Outgoing*	*Incoming*
Voting Council	Past President	Miles Davenport	
	Vice President		Dale Godfrey
	Hon Secretary	Susanne Heinzel	Rose Ffrench
	NSW Councillor	Stuart Tangye	Marcel Batten
Non-voting Council	VSP Co-ordinator	Alejandro Lopez	Alejandro Lopez
	FIMSA Councillor	Nick King	no nomination received

COMPOSITION OF COUNCIL IN 2012

	Position	
Executive	President	David Tarlinton
	Vice President	Dale Godfrey
	Secretary	Rose Ffrench
	Treasurer	Pablo Silveira
Voting Council	NSW Councillor	Marcel Batten
	SA/NT Councillor	Michele Grimbaldeston
	Qld Councillor	Ashraful Haque
	Vic/Tas Councillor	Stuart Berzins
	ACT Councillor	Stephen Daley
	NZ Councillor	Anne La Flamme
	WA Councillor	Alec Redwood
Non-voting Council	Newsletter Editor	Simon Apte
	IUIS Representative	Franca Ronchese
	ICB Editor in Chief	Gabrielle Belz
	FIMSA Representative	Guna Karupiah
	Invited Speaker Program	Jose Alejandro Lopez
	Meeting Co-ordinator	Bernadette Saunders
	DoI Co-ordinator	
	Honorary Archivist & Webmaster	Judith Greer
	ICI2016 Rep	Jose Villadangos

BURSARIES TO ATTEND ASI 2011

Pheh Ping	Chang	student	ACT	$770
Jie	Chung	student	Vic	$660
Andreas	Kupz	student	Vic	$660
Renee	Robb	student	Qld	$830
Rachael	Terry	student	NSW	$650
Courtney	McDonald	student	Vic	$660
Thi	VU	student	NSW	$650
Yogesh	Jeelall	student	ACT	$770
Jonathan	Chee	student	Vic	$660
Danushka	Wijesundara	student	ACT	$770
Royce	Ng	student	WA	$810
Louis	Tsai	student	Vic	$660
Julia	Marchingo	student	Vic	$660
Koichi	Ito	student	Qld	$830
Sau	Lee	student	ACT	$770
Kok Fei	Chan	student	Vic	$660
Chin	Lee	student	Vic	$660
Latasha	Abeynaike	student	Vic	$660
Natalie	Lorenz	student	NZ	$900
Natalie	Payne	student	Vic	$660
Tyani	Chan	postdoc	NSW	$920
Motoko	Koyama	postdoc	Qld	$1100
Victor	Peperzak	postdoc	Vic	$930
Stephane	Chevrier	postdoc	Vic	$930
			TOTAL	**$18,230**

UPDATE ON MEMBERSHIP

	Full	Stud	Ret	Sust	Hon	Comp	Int Full	Int Stud	Nov 2011	Nov 2010	Δ to Nov 2010
ACT	24	19	3	-	1	5	-	3	55	56	-1
NSW	117	65	6	-	2	9	3	4	206	193	13
QLD	75	43	1	-	-	10	4	3	136	112	24
SA/NT	47	17	-	1	2	7	9	6	89	66	23
TAS	6	5	1	-	-	1	-	-	13	10	3
VIC	239	89	2	-	7	11	5	4	357	338	19
WA	45	8	1	-	1	5	3	-	63	71	-8
NZ	69	44	1	-	1	5	1		121	125	-4
USA	11	1	-	-	-	-	-	-	12	9	3
UK	5	4	-	-	-	1	-	-	10	7	3
SWITZ	-	1	-	-	1	-	-	-	2	4	-2
H/KONG	2	-	-	-	-	-	-	-	2	2	0
CANADA	1	-	-	-	-	-	-	-	1	1	0
JAPAN	1	-	-	-	-	-	-	-	1	1	0
N'LANDS	2	-	-	-	-	-	-	-	2	2	0
PNG	-	-	-	-	-	1	-	-	1	1	0
GERMANY	3		-	-	-	-		-	3	6	-3
SINGAPORE	6	-	-	-	-	-	-	-	6	4	2
THAILAND	1	-	-	-	-	-	-	-	1	1	0
CHINA	1	-	-	-	-	-	-	-	1	1	0
SWEDEN									0	1	-1
BELGIUM									0	1	-1
S/ARABIA	1	-	-	-	-	-	-	-	1	0	1
Nov-11	656	296	15	1	15	55	25	20	1083	1012	71
Nov-10	627	276	13	1	14	55	7	19	1012		
Δ to Nov 2010	29	20	2	0	1	0	18	1	71		

Alderuccio queried the increase in printing costs, which doubled from $10.8K to $20.4K predominantly due to the size of the newsletter and increased membership. It was agreed that a pdf version would be made available in 2012. MH queried projected expenses in the next few years for the ICI2016 meeting. DT said this would be covered by the seed funding provided by the Victorian government, which they will audit. Overall assets increased $46,477 to a total of $636,526.

Reports next pages.

Resolution: That the AGM approves the Financial Statement of the 2010-2011 financial year.
Moved Phil Hodgkin, seconded Lindsay Dent. All in favour, resolution carried.

5. RECEIPT AND APPROVAL FROM ICB.

5.1. **ICB Report**

Gabrielle Belz provided an update on ICB, and starting with a vote of thanks to Chris and Bharma Parish for their 20 years of excellent service to ICB, which was enthusiastically supported by applause from the members.

Editor – Gabrielle Belz
Deputy Editors – Adrian Liston, Stuart Tangye and Chris Parish
News and Commentary Editors – Elissa Deenick, Stephen Daley
Impact factor – 3.741
Immediacy index – 1.049
Submissions – 251 (to beginning December)
Rejection rate – 65% (balancing meeting page quotas vs. selection of high quality manuscripts)
2011 Introduced open access option – results in increased revenue to ASI

Submissions
21% Australian
79% Overseas

Publication of the Year Award - update

The candidates were assessed and ranked.

Top ranked candidate will be awarded Chris and Bhama Parish ICB Publication of the Year Award ($1000). Awarded to Daniel Andrews
Andrews DM, Smyth MJ. A potential role for RAG-1 in NK cell development revealed by analysis of NK cells during ontogeny. Immunol Cell Biol 2010; ***88****: 107-116.*

INCOME	2011	2010
Conference Income	51,413	55,580
ICB Royalties	74,328	77,579
Investment & Savings Interest	20,175	13,992
Memberships	82,985	101,062
Newsletter Advertising	1,820	2,262
Seed Loan Repayments	20,000	0
Branch Sponsorship	21,530	3,636
Other Branch Income	0	82
TOTAL INCOME	**272,251**	**254,193**

EXPENSES	2011	2010
Accounting	2,593	7,250
Audit	3,800	3,850
Bank Fees & Charges	3,929	4,475
Burnet Orator/Speakers Dinner	12,670	8,482
Bursary Awards	19,270	24,111
Corporate Affairs	40	111
Council Meetings	3,173	8,701
Day of Immunology	3,720	1,894
Email, Fax, Photocopying, Web Support	617	1,474
Exchange Rate Difference	761	156
FIMSA Training Course	0	17,710
ICB Subscriptions	1,313	7,113
ICI 2016	1,417	4,071
Legal Fees	2,058	0
Medallions/Gifts	412	2,144
Meeting Seed Loans	0	4,000
Meeting Support	54,569	26,475
Newsletter Prize	0	200
Postage	7,388	10,045
Printing and Stationary	20,424	10,850
Publication of the Year	0	1,000
Society Memberships	9,023	9,406
Secretariat	19,488	20,749
Student Prizes	2,415	6,563
Travel Awards	43,650	37,537
Visiting Speakers Program	12,044	25,431
Young Investigator Award	1,000	1,000
TOTAL EXPENSES	**225,774**	**244,797**
PROFIT/LOSS	**46,477**	**9,396**

BALANCE SHEET

		2011	2010
ASSETS			
Cheque/Saving Accounts			
Central		460,002	450,960
ACT		6,608	5,707
NSW		26,779	13,774
NZ		33,446	17,257
Qld		25,230	17,329
SA/NT		12,378	6,654
Vic/Tas		43,988	43,335
WA		11,181	6,173
	Total	**619,612**	**561,189**
Accounts Receivable			
Trade Debtors		24,700	22,813
Total Current Assets		**644,312**	**584,002**
LIABILITIES			
Accounts Payable		0	0
Audit Fees		3,850	3,200
GST Liabilities		3,936	-3,180
Total Liabilities		**7,786**	**20**
TOTAL EQUITY		**636,526**	**583,982**

BUDGET 2011-2012

INCOME	Aug to Nov 2011	2011-2012 Budget	2010-2011
Conference Income	11,337	50,000	51,413
ICB Royalties	11,068	75,000	74,328
Investment & Savings Interest	1,121	20,000	20,175
Memberships	19,060	100,000	82,985
Newsletter Advertising	260	2,200	1,820
Seed Funding Repayments	0	20,000	20,000
Sponsorship	0	20,000	21,530
Other Income	0	100	0
TOTAL INCOME	**42,846**	**287,300**	**272,251**

EXPENSES	Aug to Nov 2011	2011-2012 Budget	2010-2011
Accounting	1,050	7,780	2,593
Audit	2,200	3,850	3,800
Bank Fees & Charges	691	4,500	3,929
Branch Meeting Costs	2,000	50,000	54,569
Burnet Orator/Speakers Dinner	0	5,000	12,670
Bursary Awards	18,230	18,000	19,270
Corporate Affairs	0	120	40
Council Meetings	786	5,000	3,173
Day of Immunology	0	5,000	3,720
Email, Fax, Web Support	112	600	617
Exchange Rate Difference	0	0	761
FIMSA Training Course	0	9,000	0
ICB Subscriptions	1,313	7,200	1,313
ICI 2016	0	0	1,417
Legal Fees	0	2,000	2,058
Medallions/Gifts	0	600	412
Meeting Seed Loan	0	20,000	0
Memberships	-2,785	9,450	9,023
Newsletter Prize	0	200	0
Postage	3,398	10,400	7,388
Printing and Stationary	6,015	16,000	20,424
Publication of the Year	1,000	1,000	0
Secretariat	7,220	21,500	19,488
Travel Awards	12,535	58,000	46,065
Visiting Speakers Program	9,544	30,000	12,044
Young Investigator Award	0	1,000	1,000
TOTAL EXPENSES	**63,309**	**286,200**	**225,774**
TOTAL INCOME	**42,846**	**287,300**	**272,251**
PROFIT/LOSS	**-20,462**	**1,100**	**46,477**

2nd ranked will be awarded Thermo Fisher Scientific Award ($500). Awarded to Patrick Reading

Reading PC, Whitney PG, Pickett DL, Tate MD, Brooks AG. Influenza viruses differ in ability to infect macrophages and to induce a local inflammatory response following intraperitoneal injection of mice. Immunol Cell Biol 2010; ***88****: 641-650.*

Launch of Sister Journal – update

Proposed launch of sister journal for ICB. This will be fully on line and with upfront payment like the PLOS journals.

- This process is nearly finalized with contracts to be signed at ASI2011.
- A name is still to be decided and the launch at this stage will be the third quarter of 2012.
- Discussions have focused around alignment of contract terms for both ICB and the new journal and these have been taken on board. The second issue was ownership and rights to material – these will remain with ICB regardless of any future transfers of the new journal.

Resolution: That the AGM approves the ICB report.

Moved Kim Murphy, seconded Pablo Silveira. All in favour, resolution carried.

6. OTHER REPORTS

6.1. **FIMSA Report**

5th FIMSA Congress, 4-17 March 2012, in New Delhi

Advanced Training Course in Immunology, 18-20 March 2012

There was a call for Expression Of Interest to membership to represent ASI as Faculty for FIMSA training course and presenter at the FIMSA congress.

Received 10 applications, from which the following four were selected: Jon Sprent, Miles Davenport, Rose Ffrench, Cindy Ma.

The next FIMSA meeting is likely to be held in Singapore in 2015.

6.2. **Meeting Reports**

2011 Adelaide Claudine Bonder as chair of the local organising committee summarised the recent progress with organising this meeting. There had been n=600 registrations, n=150 students, with attendees from 16 countries. A surplus in the budget was used to increase poster prizes and for social events. SIG workshops included the ASI-TZANZ, with the postgraduate workshop limited to half a day to allow students to attend other SIGs in the afternoon. In the program there were 400 abstracts and 100 talks, with afternoon workshops upgraded to symposia. It was predicted there would be a budget surplus.

2012 VIC/TAS Su Heinzel briefly summarised progress with the Melbourne meeting, which will be held at the Melbourne Exhibition and Convention Centre from 2-6 December, 2012.

2013 NZ Wellington Convention Centre, 1-5 December, Jo Kirman convenor.

SPECIAL BUSINESS

7. SPECIAL RESOLUTIONS TO AMEND THE RULES OF THE AUSTRALASIAN SOCIETY FOR IMMUNOLOGY INC.

Special resolution 1:

That the section : 2.1 "Financial Year" means the year ending on 30 June

to be replaced by: 2.1 "Financial Year" means the year ending as defined under Rule 8.

Moved David Tarlinton, seconded Alan Baxter. All in favour, special resolution carried.

8. MEETING CLOSED AT 2.00PM

Contributions sought for the ASI Newsletter

You could win $200 !!

Deadline for the next issue : 1st May 2012

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

The Father of Modern Tumour Immunology
Lloyd J. Old. 1933-2011

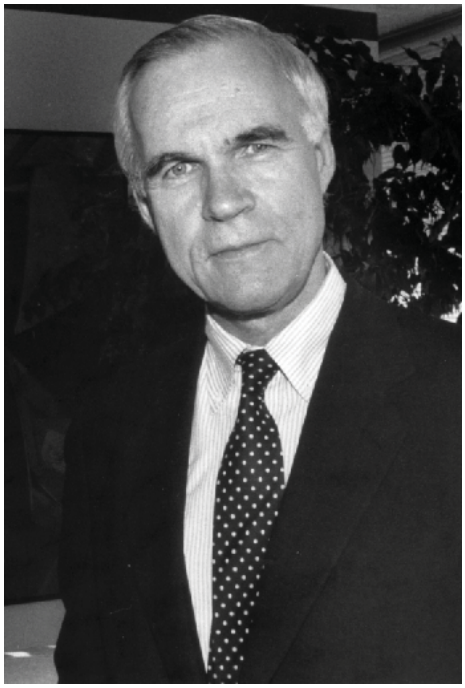
Andrew M. Scott (1) and Mark J, Smyth (2)

(1) Ludwig Institute for Cancer Research, Austin Hospital, and University of Melbourne, Melbourne, Australia
(2) Sir Peter MacCallum Department of Oncology, University of Melbourne, and Cancer Immunology Program, Peter MacCallum Cancer Centre, Melbourne, Australia

The scientific community mourns the passing of Lloyd Old, the father of modern tumour immunology, of prostate cancer, on November 28th, 2011. He devoted his career, spanning more than 50 years of scientific research, to understanding the immunological basis of cancer initiation, control, escape and treatment. His insight, formidable intellect, vision, and mentorship impacted on generations of scientists and clinicians who trained under his guidance, or were touched by his generosity and abiding interest in the field.

Lloyd Old began his scientific career at Memorial Sloan-Kettering Cancer Center in 1958, after completing a medical degree in California. In collaboration with Baruj Benacerraf, he made the seminal observation that Bacille Calmette-Guerin (BCG) immunisation conferred protection against tumours in mouse tumour models, which was published in *Nature* in 1959. BCG therapy is now used clinically in the treatment of superficial bladder cancer, and this discovery was one of the first to demonstrate the role of the immune system in controlling cancer. In 1963 he first reported on the use of asparaginase as an anti-cancer agent, which today is still used in the treatment of leukemia. From these early days, his interest and commitment to tumour immunology was established, and he continued this focus of research throughout his career.

During the 1960s and 1970s, Lloyd Old made a series of discoveries that revolutionised our understanding of the immune system. In collaboration with Ted Boyse, they introduced the concept of cell-surface differentiation antigens that could distinguish lineage and functional subsets of leukocytes in mice. This led to the discovery of the thymus-leukemia (TL) antigen, linking the major histocompatibility complex and leukemia, and subsequently the Ly series of antigens. These discoveries led to the precise and systematic identification of cell surface antigens that distinguished normal cells



Lloyd Old, circa 1998

from malignant cells, and directly to the CD (cluster differentiation) classification.

During this period, Lloyd Old also discovered tumour necrosis factor, subsequently identified as pivotal in autoimmune inflammatory disease, and anti-TNF therapy is now routinely used in many arthritis and inflammatory bowel disease patients. He was also a co-discoverer of p53, and identified its overexpression in human tumours.

One of the most significant contributions Lloyd Old made to the field of basic tumour immunology was through his comprehensive serological definition of antigens expressed by cancer cells, and recognised by antibodies and T cells. His laboratory discovered and defined, through rigorous serological techniques, an array of tumour cell surface, stromal and vasculature antigens that led to the development of over a dozen monoclonal antibodies, which have been licensed and are in clinical trials. He also pioneered the discovery of the cancer-testis antigens, including NY-ESO-1, which has directly led to a resurgence in the worldwide use of cancer vaccine trials in cancer patients. Lloyd Old's commitment to the concept of "In vivo veritas" was profound and unwavering, and the translation of laboratory discoveries into the clinic remained one of his major accomplishments and contributions to the field.

The impact of Lloyd Old's contribution to the field of tumour immunology extended far beyond his own laboratory discoveries. He was pivotally involved in the creation, operations and success of two major international cancer research organisations: the Ludwig Institute for Cancer Research (LICR), and the Cancer Research Institute (CRI). Lloyd Old was involved in the establishment of LICR in 1971, was the scientific director of LICR from 1988-2005, and chairman of the board of LICR from 2005-2009. During his tenure as scientific director he initiated the LICR Clinical Trials Program, which became the largest global academic research effort devoted to extending laboratory discoveries into the clinic, in the areas of cancer vaccines and monoclonal antibodies. He was also named the founding scientific director of CRI in 1971, and over a 40 year period established programs in postdoctoral fellowship, research grants, and facilitated the careers of more than 1,000 young immunologists. In 2001 he created the Cancer Vaccine Collaborative (CVC), a joint venture of CRI and LICR, which established a global clinical trials network dedicated to testing and improving cancer vaccines.

Lloyd Old also had a major direct impact on Australian science. He was involved in the initial establishment of LICR Branches in Australia (Sydney and Melbourne), and during his tenure as scientific director of LICR, the LICR Melbourne Branch became one of the worldwide hubs of the LICR clinical trials program. This involved the establishment of a GMP Biological Production Facility, to produce antibodies and vaccines for the global LICR trials

network, as well as the creation of laboratory programs aimed at translating antibody, dendritic cell and vaccine discoveries into the clinic. The CVC initiative also extended to Australia, and numerous academic institutions throughout the country have participated in LICR and CVC clinical trials. The CRI training programs and research grants have also been a pivotal part of the creation of a new generation of tumour immunologists in Australia, and facilitating immunology research.

Lloyd Old was elected to the American Academy of Arts and Sciences in 1976, and to the US National Academy of Sciences in 1978. Over the course of his career he received many awards, including the Alfred Sloan Award for Cancer Research (1962), the Louis Gross Award (1972), the CRI William B. Coley Award for Discoveries in Basic and Tumor Immunology (1975), the Research Recognition Award from the Noble Foundation (1978), and the Robert Koch Prize from the Robert Koch Society (1990). He received honorary doctorates from four universities, and published over 800 research papers. In addition to his impressive scientific accomplishments, Lloyd Old also had a broad and abiding interest in music, literature and philosophy.

One of the unique characteristics of Lloyd Old was his interest in, and mentorship of, students and fellows who worked in his laboratory, or with whom he made contact as part of his scientific programs. He always had time to discuss research, was genuinely interested in each individual's personal and professional progress and problems. There are literally hundreds of scientists and clinicians worldwide who have directly experienced and benefitted from his tireless engagement, advice and facilitation of their research and careers.

On a personal note, both of the authors have been directly impacted by Lloyd Old's mentorship and friendship during our careers.

Andrew Scott: From my first interactions with Lloyd Old while working as a Fellow in his program at Memorial Sloan-Kettering Cancer Centre (MSKCC) in the early 1990s, I was inspired, challenged, and encouraged to pursue the science and clinical applications of tumour immunology. He was instrumental in providing the opportunity for me to return to Australia to the Ludwig Institute Branch in Melbourne, and continue my career in antibody based immunology. Over a 20 year period he was a scientific collaborator, mentor, and friend, always prepared to discuss scientific data, plan for new projects, and strive for the successful implementation of our discoveries in the clinic. His insight, vision and personal support will be greatly missed.

Mark Smyth: Via the forum of the CRI's annual meeting, Lloyd Old was instrumental in bringing Robert Schreiber and I together in their studies of cancer elimination, equilibrium and escape. It was a great honour for Robert and I to share the Charles Brupbacher Foundation Prize with Lloyd in 2007 for our collective work in tumour immunology and a very memorable few days' celebration together. I received many treasured phone calls from Lloyd, and he was always willing to discuss the latest findings in the field and offer his unique thoughts and great historical perspective. It was always informative and encouraging. His fostering of young Australian immunologists through his Directorship of the Cancer Research Institute was wonderful over very many years.

For those of us who work in the field of tumour immunology, Lloyd Old has been a pioneer in laboratory, translational and clinical areas. His contributions to the field are significant and lasting.

ASI Councillors' News

N.S.W. News

On behalf of the NSW ASI members, I would like to acknowledge the fantastic work of Stuart Tangye as NSW Councillor over the past three years. The NSW activities and branch meetings have benefited greatly from his commitment and enthusiasm as Councillor. I hope that, as the incoming Councillor, I can live up to Stuart's standards and continue to serve you well. Please do contact me with any issues, suggestions or comments that you would me to consider in relation to the NSW branch or that you would like conveyed to the ASI Council (m.batten@garvan.org.au).

We NSW delegates extend our congratulations and gratitude to the South Australian organisers of last December's ASI meeting in Adelaide. It was another excellent meeting, both scientifically and socially. Congratulations to the winners of the various prizes, the standard of the student and early career researcher contributions was, again, very high. And we all learned a thing or two about why we should appreciate RGMS ….

Plans are underway for the 2012 combined NSW/ACT Branch Retreat. Following on from the success of recent years, we will again hold it at Craigieburn Resort and Conference Centre in Bowral. The meeting will take place on 23-24 August and will take a similar format to that of last year's meeting. This is always a fun and collegial meeting and I look forward to seeing as many of you as possible there this year. Further communication will, of course, follow.

We are fortunate to have an ASI international visiting speaker, esteemed Tuberculosis researcher Prof. Joanne Flynn from the University of Pittsburgh visiting us this month. Her seminar will take place at the Centenary Institute on Monday, March 26.

I look forward to working with you all over the next three years.

All the best until next time

Marcel Batten
Councillor

N.Z. News

NZ ASI/Immunet Meeting 2012
This year's NZ ASI branch meeting will be held in sunny Dunedin from 28 to 29 June 2012 at the Dunedin Art Gallery. The confirmed keynote speakers are Troy Randall (University of Rochester, NY), Anne Kelso (WHO Collaborating Centre for Reference and Research on Influenza) and Richard Vile (Mayo Clinic, MN), and this year's focus topics will include: Human Health, Allergy Autoimmunity, Cancer Immunotherapy, Infectious Diseases and Veterinary Immunology. For more information regarding the NZ ASI/Immunet meeting, please visit http://immunet.otago.ac.nz/news/ or contact Alex (alex.mclellan@otago.ac.nz).

Day of Immunology, April 29 2012
Work is underway organizing this year's Day of Immunology celebrations. As in previous years, we are planning events in both Wellington and Dunedin and will include public lectures as well as our wildly popular Quiz Night. Because 29 April is International Dance Day, we plan to highlight the "dance of immune cells" – migration, invasion, and adhesion. Volunteers interested in becoming involved in the Day of Immunology celebrations are welcome. Please contact me (anne.laflamme@vuw.ac.nz) or Jo (jkirman@malaghan.org.nz).

ASI Visiting Speakers 2012
This year Prof JoAnne Flynn will visit Wellington from 27-29 March 2012. She will deliver a seminar on Wednesday 28 March at 12pm in the Hunter Council Chambers at Victoria University of Wellington. Anyone interested in attending the seminar or meeting with Prof Flynn, please contact Anne (anne.laflamme@vuw.ac.nz) for further information, directions or other queries.

Anne LaFlamme
Councillor

Victorian News

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

After what was a great 2011 Annual Meeting held in Adelaide, 2012 has quickly come around and it will be a big year for our local members with the Annual Scientific Meeting to be held in Melbourne later this year. Coupled with the International Congress of Immunology coming to Melbourne in 2016, there is already a lot of work going on behind the scenes to make those events a success. I'd remind everyone to please get their ASI memberships in asap because that money is what enables ASI to organize these great events and to provide our members with an increasing array of prizes and travel awards. Please ask your colleagues if they have renewed, because they won't be reading this. To renew membership, they should either return the renewal notice sent out with the December newsletter or visit the ASI website (http://www.immunology.org.au/) and go to the 'join ASI' link on the left hand side panel.

I'd like also to mention that I have taken up a research position at the University of Ballarat and, as such, I have new contact details. If you have anything that you would like to bring to my attention (e.g. possible visiting speakers, suggestions or issues to bring to ASI Council, etc.), please contact me at s.berzins@ballarat.edu.au.

The ASI Council is very interested in what our members have to say and our decisions are often made to best reflect what we believe our membership wants. So if you have a great idea about what ASI could or should be doing, please speak up. A priority at this stage of the year is to hear from members about researchers we could invite under the ASI Visiting Speakers Program. Visits from international speakers require a lot of organization (they usually visit three or more States and/or NZ), so the more time we have to arrange things and co-ordinate schedules, the more chance there is that we will be able to get the person you want to see.

Stuart Berzins
Councillor

THE ASI VISITING SPEAKER PROGRAM 2012

We would like to remind you of the opportunities to propose and host high calibre speakers relevant to your field of research. The program facilitates the visit of distinguished immunologists to your own location opening opportunities for strengthening or initiating collaborations for your research.

We do look forward to hearing your proposals.

For details on the process, visit the ASI website.

Scheduled visits for 2012

March 2012

Professor JoAnne L. Flynn
Center for Vaccine Research
Microbiology & Molecular Genetics
University of Pittsburgh
Pennsylvania, USA

Immunity to Tuberculosis and non-human primate modelling of disease
19-21 – Gold Coast (Griffith University)
22-23 – Perth
24-27 – Sydney
28-29 – Wellington, New Zealand

Hosted by Michael Good, Gold Coast (Griffith University)
Details of presentations from your Branch Councillor.

August 2012

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

Hosted by Stuart Tangye, Sydney (Garvan Institute)

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.

UPCOMING CONFERENCES

5th International Singapore Symposium of Immunology
June 7– 8, 2012
Singapore
www.sgsi2012.org

12th International Immunology of Diabetes Society Meeting
June 15-19, 2012
Victoria, BC, Canada
www.IDS2012.ca

6th International Veterinary Vaccines & Diagnostics Conference
July 29 – August 1, 2012
Cairns, Queensland, Australia
www.ivvdc2012.org

15th Biennial Meeting of the European Society for Immunodeficiencies
October 3–6, 2012
Florence, Italy
www.kenes.com/esid2012

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

15th Biennial Meeting of the European Society for Immunodeficiencies
October 3–6, 2012
Florence, Italy
www.kenes.com/esid

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

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Travel Award Conference Reports

17th Germinal Centre Conference, 2011

Candice Lee
John Curtin School of Medical Research, ANU, Canberra

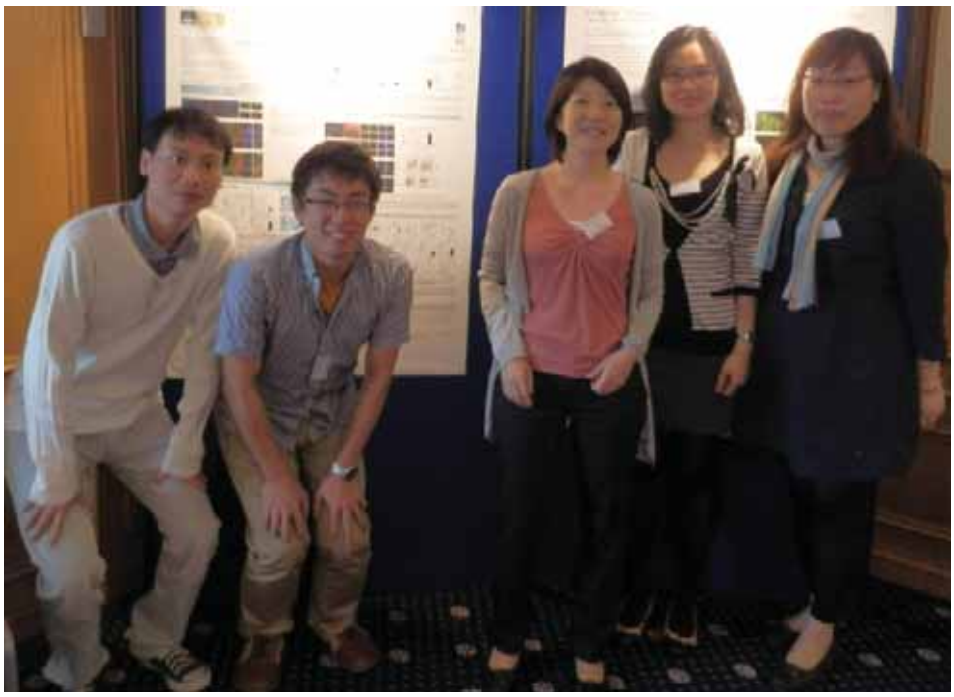
On 4–6 September 2011, roughly 300 scientists gathered in Belfry, located 15 minutes from Birmingham International Airport, UK, for the 17th Germinal Centre Conference. I was fortunate enough to attend one of the largest international conferences in my field and looked forward to meeting and interacting with immunologists from leading groups to discuss recent advances in the field of germinal centre. The conference is held every two years, and this year it was hosted by The University of Birmingham at a beautiful golf resort. There were over 50 oral presentations in eight excellent sessions, which were accompanied by more than 100 poster presentations. Sessions covered a wide range of germinal centre related research topics, including T follicular helper (Tfh) cells and memory, development of lymphoid tissues, chemokines and migration, plasma cells, infection or vaccination, cell transformation, ageing and, of course, germinal centre.

I was very excited, this was my first trip to the UK and my supervisor, Carola Vinuesa, who had graduated from the hosting university, was the opening keynote speaker for the meeting. The conference started with her presentation on the "Regulation of Tfh cell formation and homeostasis". She gave a broad overview on Tfh cell, a specialized CD4 T cell subset that provides help to B cells, a field to which she has made substantial and invaluable contributions. She highlighted the heterogeneity and plasticity of Tfh cells in both physiological and autoimmune settings, and described some of the newest Tfh subsets like NK Tfh and Tfr (T follicular regulatory) cells.

Some of the highlights of this conference included the outstanding work by Gabriel Victora, who showed germinal centre selection and dynamics using transgenic photoactivatable fluorescent protein tracers and multiphoton laser-scanning microscopy and flow cytometry. Another noteworthy presentation was the work by Youn Soo Choi. He showed that the differentiation program of Tfh cells required ICOS signaling and occurred immediately during dendritic cell priming at the second cell division of CD4 T cells. Individual talks by Michelle Linterman and Luis Graca highlighted a new Foxp3$^+$ Tfh subset, which is Tfr that shares phenotypic characteristics with both Tfh and conventional Foxp3$^+$ regulatory T cells (Tregs) but is clearly distinct from these cells. The Tfr cells were recruited into the germinal centre where they play an important role in regulating the magnitude of the GC response and the amount of secreted antigen-specific antibodies.

I was given an opportunity to present my work on the requirement of Bcl-6 in extrafollicular responses in the final poster session. I had much interest in my research and an opportunity to discuss my work with eminent experts in my field. I received invaluable feedback on my work and ideas for future directions. Prizes for the best poster presentations were awarded to Patricia Amé-Thomas (University of Rennes, France) and Federica Capolunghi (Children Hospital Bambino Gesù, Italy). One of the aims of this international meeting is to stimulate collaborative research by bringing together researchers specialized in different fields or techniques. Undoubtedly, this meeting has created many collaborative opportunities.

Overall all sessions were well attended throughout the whole meeting and packed with high quality talks. I have learnt many things, made some invaluable contacts and feel that this trip has been very useful in aiding the completion of my PhD studies. Lastly, I am extremely thankful and grateful to the Australasian Society for Immunology (ASI) for its financial support in the form of a travel grant, which provided me with this great opportunity to present my work in the UK. I left with memorable experiences and great ideas for my research and career.



LtoR: Huy Thinh Tran, Shimpei Kawamoto, Mikako Kimura, Candice Lee, Xiangyue Zhang enjoying the GC Conference poster session

5th International Conference on Autoimmunity: Mechanisms and Novel Treatments

Jessica Stolp
Garvan Institute, Sydney

The 5th International Conference on Autoimmunity: Mechanisms and Novel Treatments was held in a lovely resort on the Greek island of Crete. Prior to arriving in Crete, I had visited some labs for potential post-doc positions in London and Zurich, which made the sunshine in Crete even more enticing. The first evening of the conference consisted of registration and a welcome dinner, it was this event that set the tone for the rest of the conference - 'FOOD! (and lots of it)'. Breakfast and lunch were buffet style, so all you can eat. The food choices were endless from cheese platters to ice cream! Dinner was usually in a local Greek restaurant, which allowed us all to try some fantastic local cuisine and homemade wines. This conference only had about 80 delegates with whom you ate breakfast, lunch and dinner as well as attended the conference. So every meal consisted of some stimulating (usually science-related) conversation. One afternoon we also had an excursion to the ruins of Knossos and the accompanying museum, which were very interesting and a nice change from science.

The conference was structured such that talks began at 8am every day and concluded by 1:30pm for lunch and free afternoon time for relaxing by the pool. Most of the talks were 25 minutes and given by laboratory heads such as Christophe Benoist, Vijay Kuchroo, Mark Atkinson and David Serreze (who nicknamed me his 'scientific granddaughter' as my supervisor did his post-doc with him at Jax and we still collaborate). Topics covered included the involvement of the innate immune system in autoimmunity, genetics of autoimmunity, regulation of autoimmunity and immunotherapy. NOD mice and EAE were the main models covered in these talks. There were 20 or so posters, mainly by students, also available for viewing during morning tea breaks. Some talks that really stood out for me were Matthias von Herrath's talk titled 'Virsues and autoimmunity-good or bad?' and Burkhard Becher's 'From IL-17 to GM-CSF: Players in T cell mediated autoimmune disease'. Both of these talks gave a great overview of the topic and then proceeded with their own laboratories' data.

Overall this was a fantastic conference to attend, both scientifically and socially. So thank you ASI for funding my trip.

Jessica Stolp & Kim Cheng (partner) at the most photographed location in Knossos

View of the resort pool and ocean from the main restaurant

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 $200 FOR THE BEST ARTICLE PUBLISHED IN THE NEWSLETTER!**

Newport 2012: 14th International Conference on Lymphocyte Activation and Immune Regulation and Keystone Symposia: The Biology of Cytokines

Helen McGuire
Garvan Institute of Medical Research, Sydney

In February 2012, I was fortunate enough, with the assistance of an ASI Postdoctoral International Travel Award, to attend not one but two excellent conferences. They were the 14th International Conference on Lymphocyte Activation and Immune Regulation, entitled "T cell Differentiation and Plasticity", and the "Keystone Symposia: The Biology of Cytokines, which was hosted as a joint meeting with the "Keystone Symposia: Th17 cells in Health and Disease". The conferences complemented each other on content- focusing strongly on T cell biology, and pleasantly contrasted each other in terms of setting, the first at Newport Beach (think the beachside glamour of '*The OC'* TV show) and the second set at a skier's delight at the Keystone Resort, atop the Colorado Rocky Mountains.

The Newport 2012 meeting had sessions entitled:

- Epigenetic and Transcriptional Regulation
- Mechanisms of T cell Differentiation and Plasticity
- Th17 Cell Differentiation
- Regulatory T cells
- Immune Pathways in Inflammatory Bowel Disease

The meeting featured talks from some true immunological heavy weights, including Jeff Bluestone, Shane Crotty, Chen Dong, Dan Littman, Bill Paul, Fiona Powrie, Sasha Rudensky and Federica Sallusto (to name a few!). It was a privilege to see and meet them in a relatively intimate meeting of some 120 attendants. In fact this somewhat casual setting lent itself to animated, almost confrontational discussions at question time. A highlight was when Jeff Bluestone (UCSF) and Shohei Hori (RIKEN) presented very different interpretations regarding Foxp3 commitment and the existence of 'Ex-Tregs'. Both had made conclusions from fate-mapping reporter mice experiments, and they encouraged Rudensky (Sloan-Kettering Institute), who has also done these types of experiments, to join the debate. He reluctantly contributed. Additionally John O'Shea (NIH) and Casey Weaver (UAB) reasoned with the audience that the term 'master regulators' was a bad phrase to use for T helper transcription factors, given our current understanding of lineage commitment.

The Keystone Symposia, on the other hand, had sessions entitled:

- Opening keynote session with Diane Mathis & Tadatsugu Taniguchi (joint with Th17)
- Innate Immunity
- Metabolic disease and cancer
- Cytokines and adaptive processes
- The interferons
- Cytokines and environmental interfaces
- The IL-6 family
- Th17 cytokines and regulators (joint with Th17)
- Regulation and function of IL22 (joint with Th17).

As you can see from the session titles, the conference was a *tour de force* of all things 'cytokines', covering every possible permutation of cytokine research. I did however make note that there certainly were 'hot topics' that really captured the audience's attention and enthusiasm. Indeed, if they too adopted our ASI annual conference tradition of limerick writing, they certainly would have focused on interleukin-22 (IL22), innate lymphoid cells (ILCs) and the Aryl hydrocarbon receptor (AhR).

A talk that personally caught my attention – Ajay Chawla (Cardiovascular Research Institute, UCSF) *Innate Regulation of Adipose Tissue Metabolism* – described a critical role for IL-4 in thermoregulation, such that white adipose tissue cannot release free fatty acids to be used for fuel by brown adipose tissue (to stabilize body temperature) if alternatively activated tissue macrophages are incapable of signaling IL-4. They found that alternatively activated macrophages produce catecholamines, to help sustain adaptive thermogenesis, i.e. response to cold. *Novel ties of immunology and neurology.*

I want to thank ASI for the opportunity to partake in these conference experiences. It has given me an insight into international immunology that is priceless. The opportunities for feedback on my research and networking were many, giving me also additional exposure to prospective postdoctoral opportunities. Furthermore, I relished the opportunity to diligently fly the Australian flag as an ambassador for our strength and presence in the field of immunology.

Helen at the Keystone Resort, Colorado Rocky Mountains

Sustaining Membership

ASI Inc acknowledges the support of the following sustaining member:

• Jomar Bioscience

Publications List

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

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