



TRANSPLANTATION SOCIETY OF AUSTRALIA & NEW ZEALAND

Annual Newsletter 2013

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Editorial Comment

Dear Members,

Welcome to the November edition of the TSANZ newsletter.

It's been another busy year for many of you, I suspect. The society has had another productive and stimulating year with a highly successful ASM (efficiently organised by Wai Lim and Lloyd D'Orsogna) and postgraduate course (organised by Dan Chambers and Ross Francis). Both incorporated excellent international and local speakers with state of the art sessions and cutting-edge updates in various areas of immunology and transplantation, across several organs.

Congratulations to all the highly deserving award recipients, indicated later in this newsletter. In particular special mention must go to the Honorary Life Membership awarded

to Alex Bishop and the Ian McKenzie award that was presented to Toby Coates. Many junior members of the society also benefitted and the ongoing input of trainees, basic scientists and junior researchers in the scientific program is great to see.

I hope you enjoy this edition of the newsletter. We'll try to keep you up to date with events and meetings throughout the year.

John Kanellis

President's Message

The New Council has had its first meeting since June 2013. Two themes have emerged that I would like to feedback to the membership. Firstly the TSANZ is now committed to supporting at least two medical/scientific meetings per year. The first one is of course our Annual meeting that takes place in June/July each year in Canberra. There are no plans to change this. The second is a flexible meeting in approximately November/December each year. This type of meeting is designed either to interact with other societies and/or to concentrate on Single Topics. We have already had one of these as a workshop associated with ASI in Adelaide in 2012. The meeting this year will be with the International Organ Donation Society in Sydney in two weeks' time and in 2014 there is a commitment to another joint workshop with ASI. Also this year I recently attended a 2 day workshop in Darwin on *Improving transplant Outcomes for Australia's Indigenous communities*. This meeting highlighted major concerns and was held by the Menzies Research Institute and our Infectious Disease colleagues. We anticipate that issues raised at this meeting will need to be addressed. The Council would welcome any suggestions for

the membership for other topics to be included as a focus for this second meeting each year. The second issue that I would like to feedback on is that Council is to develop and discuss Transplant issues that affect the TSANZ directly, our practice but effect our patients. Council has suggested topics such as:- How do we do research better and can Council support more research activities (and how)? Are there issues in Surgical Training (Multi-organ retrieval /live donation) and Renal Physician training that TSANZ needs to address? Is Council and TSANZ briefed adequately on Organ Donation independently from OTA? Should TSANZ start to tackle the issue of machine perfusion of donor organs and resource implications involved? These issues will be discussed over the next year by your Council.

I welcome any feedback and suggestions on these and other topics. Please keep in touch, my mobile phone number is 0418 212 805 and email: g.mccaughan@centenary.usyd.edu.au.

Geoff McCaughan
President, TSANZ

Secretary's Report

The TSANZ remains very active with approximately 730 members currently. The society continues in its efforts to actively promote basic scientific research as well as be involved in clinical developments in organ transplantation.

Remember to encourage junior colleagues who may benefit from membership, to join the society. Benefits include the possibility to receive travel grants, research awards, as well as reduced registration rates for the postgraduate course and scientific meetings. The TSANZ website outlines the many generous grants and awards offered by the society for young as well as established researchers, as well as trainees and clinicians.

As always there are several meetings throughout the year, which may be of interest to society members. The main ones to note for the near future are outlined near the end of this newsletter.

I hope to see many of you throughout the year at an event or meeting. Please feel free to contact me if you any comments or questions related to the society's activities.

John Kanellis
Honorary Secretary, TSANZ

Treasurer's Report

The Society is in a strong financial position with \$1.4M in assets comprising of essentially in cash reserves. Approximately 15% was in a Colonial First State Managed fund since 2000 with marginal gains but no overall loss since entry. That portion was recently moved back into cash ahead of a possible market downturn.

Keeping a cash reserve has been and still is a responsible course of action because our major annual operating costs (see page 15 figure 1) consisting of the ASM and array of prizes/awards/grants has in recent years has exceeded the main sources of annual income (see page 15 figure 2) from industry sponsorship and subscriptions (see page 15 figure 3). Interest leveraged from the cash reserves has at least in part made up the shortfall and allowed funding for other activities e.g. support and a TSANZ presence in the Australian Society of Immunology Meeting overseen by the previous Secretary, Professor Toby Coates.

Council is considering reinvesting a small proportion of our reserves to improve returns that may allow new and sustainable grants and prizes as opposed to spending down the principal. It may also be a prudent strategy because the advent of generic medicines in transplantation may affect sponsorship levels in coming years. Thus far, due recognition should be given our major industry sponsors that have remained committed to the Society regardless of their market circumstances.

In reviewing the Society's past finances as incoming treasurer, I also note episodic windfalls for the Society where Professor Jeremy Chapman's link between the TSANZ and TTS has resulted in fruitful collaborations. They include the Sydney TTS meeting in 2008 and upcoming Congress of the International

Society of Organ Donation and Procurement also in Sydney that together with TTS & the Australian Donate Life Network is likely to benefit TSANZ.

At this point in time, we are not only financially secure but potentially have the means to grow all Society activities particularly those related to research, education, and collaborations upon which the Society was founded.

Hilton Gock
Treasurer, TSANZ

Advisory Committees & Working Groups

Advisory Committees and Working Groups, supported by one full-time project officer funded by the Organ and Tissue Authority, will commence work to produce Version 2 of the Consensus Statements on Organ Transplantation in 2014. The Consensus Statements are essentially a series of organ-specific documents detailing our operating procedures in organ transplantation. This will be undertaken in concert with generation of “The Ethical Guidelines for Eligibility Criteria and Allocation Protocols for Organ Transplantation from Deceased Donors”, which will be a major collaborative effort between the TSANZ, ATCA, AOTA and the NHMRC that will also commence in 2014.

Steve Chadban
Chair, Advisory Committees/Working Groups

SPEC Report

2013 has seen the formation of the Scientific Program and Education Committee (SPEC) within the TSANZ Council structure. The inaugural members include Karen Dwyer (Chair), Allison Tong, Michael Fink, Daniel Chambers, Wayne Hawthorn, Kelli McDonald, Andrew Jabbour and Wai Lim. The SPEC is responsible for the development of the ASM Program for 2014 and the Postgraduate course. The program for the ASM is currently being developed with the theme of the meeting being futuristic technologies covering topics such as

artificial organ engineering, cellular gene therapy, stem cell therapy and DCD ex vivo perfusion. As in previous years the ASM will be held at the Manning Clarke Centre, ANU Canberra. Please note however that the 2014 ASM is being held earlier than in previous years: the PG course will be a one-day event on June 10th with the ASM June 11-13th, Monday June 9th is the Queen’s Birthday Public Holiday in some states. The ASM dinner will be held at the Portrait Gallery and the hotly contested Fun Run will again feature in the ASM social program.

As in previous years there are a number of prestigious awards and grants to be awarded at the ASM including President’s Prize (Basic Science & Clinical), Young Investigator Awards and Kidney Health Australia Awards. Travel Grants to International Meetings are also available upon application.

Karen Dwyer
Chair – SPEC

TSANZ Annual Dinner Old Parliament House – 27th June 2013



From top left to bottom: Nathan Zammit enjoyed the pre-dinner tour of Old Parliament House chambers, Prof Geoff McCaughan with Mr Kit Rowe and Dr Chris Mulligan; Prof Bryce Kiberd (left) with A/Prof John Kanellis, after dinner speaker Minister for Health and Aging Shayne Neumann MP; Prof Peter Macdonald presenting a gift to the 2013 overseas speakers in appreciation for their contribution to this years' meeting

PRIZES AWARDED IN 2013

Honorary Life Nominee: Alex Bishop

President's Prize (Sci): Arjun Iyer

President's Prize (Clin): Hung Do Nguyen

Ian McKenzie Prize: Toby Coates

Amgen Research Grant: Ashley Irish

Mark Cocks Award: Richard Allen

KHA Award Clinical: Melanie Wyld

KHA Award Laboratory: Stacey Walters

YIA Novartis: Melody Cheong

Michael Collins

Katie Hor

Arjun Iyer

Lucie Leveque

Hung Do Nguyen

Jessica Ryan

Jeanette Villanueva

Nathan Zammit

YIA TSANZ: Christopher Hope

Gayathri Kumarasinghe

Tony Kwan

David Liuwantara

Elisabeth Malle

Philip Masson

Yi Wen Qian

Sharmila Ramessur

Georgina Riddiough

Darling Rojas-Canales

Kisha Sivanathan

Allison Tong

Andrea Vicelli

Ping Zhang

Amgen Book Voucher: Mariea Bosco

Fui Jiun Choong

Veena Roberts

TSANZ Fun Run: Andrea Vicelli

Andrew McNally



Dr Alex Bishop (centre) receiving his Honorary Life Membership from TSANZ President Professor Peter Macdonald (left) and President Elect Geoff McCaugahn (right)



President's Prize (Scientific) winner Arjun Iyer



President's Prize (Clinical) winner Hung Do Nguyen



Ilan McKenzie Prize winner A/Prof Toby Coates



Amgen-TSANZ Innovative Research Grant winner Dr Ashley Irish



2013 Fun Run winners Andrew McNally & Andrea Viecegli



Mark Cocks Tx Research Scholarship winner Professor Richard Allen (right) with Mr Chris Thomas CEO of Transplant Australia (middle)



KHA Award (Lab) winner Stacey Walters with Prof Steve Chadban (left) TSANZ incoming President Elect



A/Prof Toby Coates (second from left) with his team of Young Investigator winners

Membership

Since the last newsletter, Council welcomed the following new members:-

TSANZ

Mohammed Al-Moktar, Ali Alyami, Leyla Aouad, Nicholas Barraclough, Bobby Chacko, Titi Chen, Melody Cheong, Fredrick Chia, Kevin Chow, Samantha Chua, Doreen Fang, William Hanf, Camilla Hanson, Leny Hidayati, Alex Hodgkinson, Irena Idel, Jola Kapojos, Sajith Kesavan, Cameron Knott, Leah Krishchock, Alice Lee, Lucie Leveque, Chenlie Li, Bentley Logan, Elisabeth Malle, Philip Masson, Andrew McNally, Kalindu Muthucumarana, Patrice Mwipatayi, Fu Ling Neo, Stacey O'Shea, Khalil Patankar, Imogen Patterson, Julie Pavlovic, Sharmila Ramessur, Georgina Riddiough, Alexander Rodgers, Thomas Rogerson, Richard Shepherd, Andrea Viecegli, Ya Wang, Jane Waugh, Diane Xiao, Tracey Ying, Ping Zhang and Monika Zwierzchonievska

TNA/TSANZ

Juliet Barr, Kylie Bragg, Yvonne Christiano, Alison Hodak, Emily West and Georgia Whitman.

ATCA/TSANZ

Merridy Baylis, Juliana Celcer, Jamie Hobson, Elizabeth John, Philippa Jones, Emily Pumpa and Lesley Sheffield.

RESIGNATIONS

Since the last newsletter, Council has accepted the following resignations:

Kerry Atkinson, Fiona Burrell, Kristie Campbell, Clara Chan, Nicole Coleman, Stephen Corder, Alana Cresswell, Judy Currey, Lincoln Dealtry, Espedito Faraone, Elizabeth Feher, Sharon Ford, Cheryl Fourie, Sue Frew, Lorraine Garry, Catherine Hannan, Julie Haynes, Anne-Maree Hockings, Andrea James, Maree Jarrett, Elizabeth John, Margaret Johnston, Rani Martin, Jennifer Moore, Marie Mulhearn, Amy Partanen, Julie Pavlovic, Alison Piodomani, Sue Priebe, Josephine Reoch, Sue Rixon, David Scott, Maggie Shariat, Lisa Sparks, Merran Spargo, Shakira Spiller, Philippa Street, Szun Tay and Glenn Valoppi.

Society Awards and Grants

The Society provides a number of benefits for members, which include support to attend national and international transplantation meetings and reduced fees at meetings sponsored by the society. The eligibility criteria for each award are outlined on the TSANZ website.

Travel Grant Award Reports

Transplantomic and Biomarkers in Organ Transplantation
4th-6th April, 2013
Cambridge, UK

Katie Hor

I would like to express my gratitude to the TSANZ for their generous travel award, which allowed me to attend the 4th International Transplantomics and Biomarkers in Organ Transplantation Conference, this year held in Cambridge, United Kingdom. Although it was early April and we were expecting beautiful Spring weather, all delegates were welcomed to the conference center in Homerton College for the first day of seminars, by SNOW!

It was particularly fitting that this conference was held in Cambridge, as the technologies of the 21st century were being presented in the same great city where the structure of DNA was discovered in 1953. In the opening session, conference chair and organizer

Professor Steven Sacks explained that in order to translate research into clinical practice, a successful biomarker would need to show benefit over the standard and current measurement practice, be specific and sensitive, allow for early detection, be reproducible, allow for a companion treatment that shows clinical benefit and also be an economic asset. With those big shoes to fill, the rest of the presentations were showing how far the science has come, and how far it still needs to go.

While the conference was small, it was extremely focused and well-rounded, with the talks spread out over 3 days. It was highlighted that the success of a biomarker study depended and will continue to depend on large, multicenter collaboration. The results of many of these were discussed, including the ONE study, the RISE study, the GoCAR study, the TACTIC study and the GAMBIC study. These studies were started with an aim of better understanding the molecular basis of disease, as well as attempting to better diagnosis or predict transplantation rejection and/or tolerance or to better guide clinical decisions. It was interesting also, to hear Dr Irene Rebollo Mesa's talk, as a biostatistician's view of biomarker studies and their validity, as well as Professor Randall Morris' talk which focused on patent law and FDA regulations relating to biomarkers.

Of particular interest to me and my Masters study, were the acute and chronic rejection sessions, which were rich with heat maps, pathway analysis, ROC curves, flow diagrams and p-values. Professor Birgit Sawitzki from Germany gave an overview of the biomarkers of acute rejection in renal transplant and liver transplant recipients, including non-invasive markers from serum and urine currently being investigated, such as CXCL10, TCAIM and IP-10. Professor Minnie Sarwal from the United States gave a talk about the "antibiomics", or the antibody response, of recurrent FSGS patients and Dr Carmen Lefaucheur of France gave an overview of the role of anti-HLA antibodies in the development of chronic renal graft injury.

The transplantation field is rapidly evolving to keep up with the current technologies which

are constantly being made more available, and meetings such as this, even in their first few years are extremely valuable to a student such as myself. I am extremely grateful that I was able to attend this meeting, which attracted such a high caliber of International guest speakers, and would like to once again thank the TSANZ for the travel grant which allowed me to do so.

International Society for Heart and Lung Transplantation
24th-27th April, 2013
Montreal, Quebec

Gayathri, Kumarasinghe

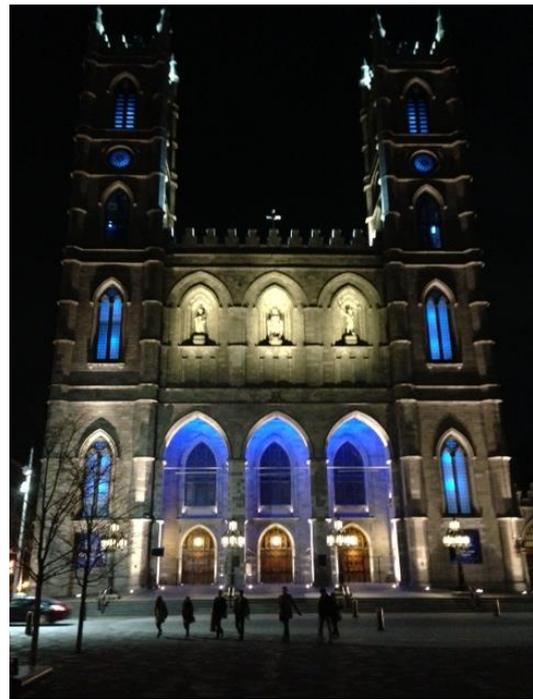
In April 2013, along with several colleagues from the Heart and Lung Transplant Unit at St. Vincent's Hospital, I travelled to Montreal to attend the annual scientific meeting of the International Society for Heart and Lung Transplantation. The meeting was attended by delegates from over 40 countries and had a fantastic scientific programme. There were also many presentations by the Australian teams and it was heartening to see how well our work compared and was received internationally.

I had the opportunity to present three posters at the meeting. The poster sessions turned out to be surprisingly very interactive since the Society had organised several poster discussants in the field to come by and discuss the abstracts. It was encouraging to discuss our clinical and research experiences with others across the globe. I also had the opportunity to attend a day's meeting on forming consensus guidelines on 'Primary Graft Failure after Heart Transplantation'. For me, this was the highlight of the meeting. It was amazing to observe more than a hundred leaders in the field of cardiac transplantation bring their experience together to construct a detailed definition of PGF to allow uniform classification and treatment of the condition. It was also a pleasant surprise to find that they based some of the discussion on a review article written by my colleague Arjun and myself as part of our literature review for our PhD projects!

It wasn't all meetings and presentations though...there were several interesting dinners

organised by the Society and our fairly large team from St. Vincent's also made sure that we ventured out into Montreal to try some of the local cuisine and refuel for another hard day of conferencing!

It was a wonderful opportunity to attend this meeting and I would like to thank the Transplantation Society of Australia and New Zealand for the generous travel grant they awarded to me.



American Transplant Congress
18th-22nd May, 2013
Seattle, USA

Amy Hughes

I would like to thank TSANZ for awarding me a Travel Award to attend the American Transplant Congress in May 2013. The meeting is aimed to provide various opportunities for learning, sharing ideas and networking. The concluding Sunrise Symposia was well regarded as an exciting highlight of the meeting. My poster was entitled "Insulin-like Growth Factor-II (IGF-II) Prevents Pro-Inflammatory Cytokine Induced Apoptosis and Significantly Improves Islet Survival Post-Transplantation" and was scheduled for presentation in the "islets" session of the congress. Another major highlight of the meeting was when my poster was awarded Poster of Distinction.

Veena Roberts

I am very grateful and honoured to be a recipient of the TSANZ travel grant. It was a great opportunity to attend and present a poster at the ATC meeting in Seattle 2013.

The meeting was very informative and I particularly enjoyed the Pre-Meeting Symposia which provided practical guidelines on how to screen for common cancers in renal transplant recipients, presented by Angela Webster and updates on management of post-transplant obesity and immunization. The sunrise symposia on “Treatment of Antibody Mediated Rejection (AMR)” presented by Stegall & Haloran was helpful in drawing perspective on the utility of measuring donor specific antibody levels and the use of early treatment with plasma exchange in cases of rapidly rising donor specific antibodies post transplantation.

In terms of prevention of AMR, the old dogmas of avoiding class II mis-matches and promoting patient adherence were reiterated. Although atypical for a transplant conference, Professor Jean-Laurent Casanova from Rockefeller University presented the brilliant theory of monogenic mutations leading to inborn errors of immunity that may predispose healthy children to succumb to specific infectious complications during the “State-of-the-Art Address”. It was inspiring to witness his journey and the fruits of a curious mind. I also had the opportunity to network with other students and scientists from laboratories interested in CD39 and I sincerely thank TSANZ for their support.

Cell Transplant Society Congress in Milan

7th-11th July, 2013

Milan, Italy

Claire Jessup

I write to thank the Transplantation Society of Australia and New Zealand for supporting my travel to attend and present at the 12th Congress of the Cell Transplant Society in Milan in July. As an early-mid career researcher, it was invaluable to me to present in front of the world leaders in islet transplantation including Camillo Ricordi (United States) and Lorenzo Piemonti (Italy). The smaller than usual attendance numbers at this meeting allowed plenty of interaction with senior researchers – I

even got to walk to the venue with Bernhard Hering one morning!

I presented my work “*Endothelial progenitor cell co-transplantation enhances the engraftment of pancreatic islets and may involve connexin 36 interactions*” during one of the oral presentation sessions. There were no concurrent sessions, giving each speaker the opportunity to present to the entire congress.

A particular highlight was a plenary delivered by Per-Olof Berggren (Sweden) describing the use of their exquisite anterior chamber islet transplantation technique which allows *in vivo* imaging and monitoring of pancreatic islets during inflammatory and lipotoxic processes. Having followed this group’s work for many years, it was a true privilege to hear Prof Berggren speak and have a discussion with him afterwards.

I wish to thank TSANZ for supporting my trip – it really was a fabulous experience.

15th International Congress of Immunology

22nd-27th August, 2013

Milan Italy

Stacey Walters

I would like to thank the TSANZ for providing me with a travel grant to participate as an oral presenter at the 15th International Congress of Immunology in Milan, from the 22/08/2013 till the 27/08/2013. The congress had over 4,000 submitted abstracts and was attended by more than 5,300 participants. The program was jam packed with sessions running from early morning till late evening every day.

The plenary sessions in the mornings were very interesting and informative, taking immunology back to basics and giving a complete overview such as “On immunity or what immunology is all about” and “T cell receptors, their specificity and role in selection” to name a few.

My presentation was titled “B cells engender thymic Tregs” and included evidence for a novel role for thymic B cells in that they promote Treg expansion leading to allograft acceptance. The Treg expansion was dependent on B cell surface MHC II

expression and was also shown to antigen specific. Thankfully this was scheduled for presentation on the first day; always a good thing so you can concentrate 100% on all the other presentations.

One presentation that really caught my eye was "Control of early B cell development by the transcription factor Ikaros" presented by Meinrad Busslinger (AUT). He showed that the zinc finger transcription factors Ikaros (Ikzf1) is an essential regulator of B cell development, but also that when Ikaros is knocked out, resulting in a lack of B cells, these mice also have impaired T cell development.

For an immunology conference I was impressed with the amount of transplant/tolerance immunology that was presented. One highlight was the lunchtime lecture "Immunological tolerance: mechanisms and therapeutic applications". Abul Abbas' (USA) presentation had the key take home message that the immune system exists in a balance between the generation of effector and memory lymphocytes to protect against pathogens and the generation of Foxp3+ regulatory T cells to prevent or limit inflammatory reactions. Failure of control mechanisms is the fundamental cause of many inflammatory disorders. Another session entitled Tolerance and Transplantation had speakers such as Kathryn Wood and Megan Sykes and was highly informative. Kathryn introduced us to the "one study" (www.onestudy.org) which is work involving human regulatory T cells expanded ex vivo that can protect human allografts (skin and vessels) from rejection and they actually have Phase1/2a clinical trials in progress. (After the conference had finished I also had the opportunity visit Kathryn's lab). Megan presented data on combined HLA mismatched (haploidentical) related donor kidney and bone marrow transplantation (CKBMT) that induced chimerism and tolerance in patients with renal failure in an ITN sponsored trial. CKBMT recipients have tolerated their allografts for >3 to >10 years without immunosuppressive medication and have developed donor specific unresponsiveness in in vitro assays. She also presented data that shows promising results in overcoming the problem of assessing

deletional tolerance directly which has previously been impossible due to the unavailability of markers for the many thousands of T cell clones responding to HLA alloantigens.

On a tourist note, Milan was a wonderful city to visit and being able to see the last supper was really incredible. The weather was also glorious, I have never worn shorts to a conference before but the temperature certainly determined the dress code.

Overall the meeting has vastly improved my knowledge of all things immunology and I made many unique contacts that will only further my endeavors in the world of Transplant immunology. Thank you for this wonderful opportunity.

**15th World Congress of the International Pancreas and Islet Transplant Association
24th-27th September, 2013
Monterey, California**

Mariea Bosco

I would like to thank TSANZ for the travel grant that enabled me to attend the IPITA 14th World Congress. The meeting was held on the 24-27 September 2013 at the Monterey Plaza Hotel, California USA.

The scientific program was as expected of a high standard. It addressed new developments in the fields of pancreas transplantation, islet biology in primates, rodents, pigs and humans and also clinical side to islet transplantation molecular diagnosis of allograft tolerance and rejection.

As this was my first trip to America, the travel grant enabled me to visit this conference and made me see a new side of research that was conducted there.

I was especially really interested in visiting the pre-congress symposium (technical aspects of pancreas transplantation). There was a session on challenges on islet isolation for islet autotransplantation. Which cover topics on technical challenges of using pancreas from a patient who had pancreatitis and obtaining viable islets for autotransplantation (back to the same patients). I especially enjoyed attending

the plenary session on the current status of islet and pancreas transplantation.

My PhD research has focused on the role of zinc and zinc transporters in the pathogenesis of type 2 diabetes especially in the early diabetes.

Subsequently, I was interested in the new development in the areas especially pancreatic islet development from embryo to adulthood. In relation to this topic Dr Hiromitsu Nakauchi from Tokyo Japan and Peter Butler from Los Angeles California US talked about Blastocyst complementation for generation of pancreas in vivo and beta cell regeneration.

In one of the session on human beta cell regeneration in humanized obese mice. They transplanted human islets to an immunodeficient and genetically obese ob/ob mice and investigated human beta cell regeneration. Ob/on mice were crossbred with immunodeficient Ray-1 mice to obtain obese and immunodeficient ob/ob-Ray-1 mice. The blood glucose was elevated in the ob/ob mice compared to control. The body weight of the ob/ob mice was significantly increased compared to lean control mice after 5 weeks post transplantation. Beyond the conference, I was really grateful to have the opportunity to spend time in the US visiting 3 institutes.

Firstly I visited Minnesota in Minneapolis where I went to the Schulz Diabetes Institute to visit Dr Bala Murgan. They specialize in islet isolation and production of porcine islets and islet auto transplantation. They were kind to lead me through the labs and the various research that they do.

Secondly, I visited Chicago to the University of Illinois to visit Amy Hughes. She is working under Dr Chong Wee, working on the transcriptional regulation of adipocyte biology and whole body energy metabolism as well as functional maturation of the pancreatic beta cell.

Finally, I went to the university of Miami to the Diabetes Research Institute to visit Dr Camillo Ricordi laboratory. His lab is involved in supplying isolated human islets to major transplantation clinical centers. It was an

amazing experience for the first time to watch human islet isolation.

Again, I would like to express my sincere thanks to the society for giving me the opportunity to attend this conference and simultaneously experience the wonderful cities of United States.

Fui Jium Choong

The 14th World Congress of IPITA was held in Monterey, California, from 24-27 September 2013. The 4-day conference showcased a variety of excellent work and the latest development in the field of islet and pancreas transplantation. The conference contained many top quality presentations featured in the plenary sessions, symposia, workshops, standard and mini-oral presentations.

A wide variety of topics relating to islet and pancreas transplantation were extensively discussed. These include advances in pancreas preservation, procurement, islet isolation, islet assessment, islet encapsulation, immunological aspect in allograft rejection, graft tolerance, graft monitoring, stem cells as alternative beta cell sources, challenges in islet auto- and xeno-transplantation. Once again, this conference brought together the world-class researchers and surgeons in the islet/pancreas transplant field, whom share their expertise in different aspect of transplantation and work cohesively to achieve a better transplant outcome.

As a young researcher in the islet transplant field, I was fascinated by the reports highlighting the improved islet yield and transplant outcome, with more than 50% insulin independence at 5 years post-transplant achieved by multiple islet centres. These encouraging findings are due largely to the advances in islet transplantation, e.g., pancreas procurement and preservation, islet isolation and the choice of immunosuppressive regimen. This is also a good illustration of a successful bench to bedside translation as a result of the combined effort of the researchers and surgeons. In this meeting, I was fortunate to present my PhD work entitled "Roles for heparan sulfate and heparanase in the rejection of islet allografts", which unravels a potential effector mechanism contributing to the rejection of islet allografts. I am truly honoured

that my findings have provided a new piece to the puzzle of the complex immunological response during the rejection of islet allografts.

Overall, the conference was truly an invaluable experience for me. I am delighted to join the rest to celebrate the clinical and scientific merits in the field of islet/pancreas transplantation. I am most grateful to TSANZ for this wonderful experience during my last year of PhD and I look forward to more exciting results and updates in islet/pancreas transplantation at the next meeting.

Charmaine Simeonovic

The IPITA 2013 program contained a number of overviews/presentations on technical aspects of human islets and their isolation. Barbara Olack from the Integrated Islet Distribution Program (IIDP, City of Hope National Medical Center, Duarte, CA) summarized a number of salient properties of human islets and highlighted contrasting features to mouse isolated islets. Generally, an acceptable yield of human islets from a donor pancreas is 500,000 islet equivalents (IEQs; one IEQ equates to an islet of 150 μ m diameter) with a minimum purity of 50% and a minimum viability of 80%. In general human islets are smaller than mouse islets i.e. \sim 150-200 μ m in diameter, \sim 55% of the islet cells are beta cells and have less insulin/ human islet i.e., 1.4 ng insulin/DNA and the insulin output is also less i.e., the stimulation index (SI) for glucose (16.7 mM)-stimulated insulin release is 6.3 ± 1.0 . In contrast, \sim 77% of a mouse islet consists of beta cells, the insulin content is 2.6 ng insulin/DNA and for insulin output, mouse islets have a SI of 11.6 ± 2.9 . Identification of human islets is best achieved using dithazone while propidium iodide (14.34 μ M) or Fluorescein diacetate (FDA) can be used to measure viability. For shipping at 15-29°C, \leq 20,000 IEQ human islets are distributed/bag, in CMRL 1066 suppl. 99-603 medium containing 10% human AB serum (HI), 10U/ml heparan sulphate (to prevent adhesion) and 10mg/ml Ciprofloxin (antibiotic). Sarah Cross (UK) revealed that matrix proteins (collagen type IV, laminin, perlecan) in the human peri-islet basement membrane are substantially lost within the first 2-5 min during enzymatic digestion of pancreas tissue, with laminin-511 and perlecan being

completely depleted by the end of the digestion procedure. Furthermore, during culture, there was no recovery of laminin-511 and perlecan but the expression of collagen type IV stabilised. Using fluorescence microscopy, collagenase was shown to enter \sim 67% of the islets in the human pancreas during the islet isolation procedure; this unwanted intra-islet entry occurs even under low pressure of collagenase delivery (50mm Hg). Usually, isolated human islets are cultured for 18 hr post-isolation but can be cultured for up to 10 days. Joyce Niland from IIDP indicated that isolated human islets cost US\$0.03 /IEQ. A. Balamurugan (Schulze Diabetes Institute, University of Minnesota) indicated that for isolating human islets from donors with chronic pancreatitis i.e., for subsequent autotransplantation, the enzyme delivery rate rather than pressure, is important. The pancreas from donors with pancreatitis is characterised by an increased content of collagen type VI, laminin and fibronectin (resulting in fibrosis) compared to normal human pancreas, and by calcification of ducts. As a result, a lower yield of islets is usually obtained e.g. 4,000 IEQ / digested gm pancreas. With increasing severity of the pancreatic fibrosis, however, the islet yield is further decreased. In terms of the preservation solution for the transport of pancreas tissue, Sarah Cross revealed that UW solution inhibits class II collagenase activity and M-Kyoto solution reduces this inhibition. Insulin-like growth factor-1 (IGF-1) in UW solution, however, promotes islet cell survival (K. Omori, USA). Camillo Ricordi reported that 6-10 % of T1D deaths is due to severe hypoglycaemia. There was a general acceptance at the congress that the only feasible application for clinical islet transplantation was to alleviate the problem of severe hypoglycaemia unawareness in T1D patients.

Jeanette Villanueva

Earlier this year I was fortunate enough to receive a travel award from TSANZ to attend the IPITA 14th World Congress in Monterey, California. At the conference I presented data from my PhD studies on the role of the adapter protein TRAF2 (TNF-receptor associated factor 2) in the T cell mediated immune response. It was a difficult talk to prepare because we were restricted to three slides in

three minutes. Many people commented on how the Rapid Fire format was an exciting alternative to poster sessions and the presenters did a great job to convey their data in a concise manner.

The first plenary session opened with the Richard Lellehei Memorial Lecture that was given by Jean Michel (Max) Dubernard (one of the members of the 1st IPITA council and surgeon of the first successful partial face transplant) who gave a very thorough and entertaining overview of the history of pancreas and islet transplantation including a video from 35 years ago of one of the first whole pancreas transplant.

One of the topics discussions during the meeting was the use of alternative sites to the liver for islet transplantation. Whilst intramuscular transplantation of islets has received a great deal of attention, subcutaneous sites, the greater omentum and even the bone marrow were also discussed as candidates for placing islet grafts. Another avenue to attempt to prolong islet graft survival is the use of various materials to encapsulate islets prior to transplant. There were a couple of sessions dedicated to this field, with researchers presenting their work on using either silk, mesenchymal stem cells, neural crest stem cells, and various ultrathin membranes to encapsulate islets before transplantation resulting in improved islet survival. Various adaptations of current islet isolation methods were also discussed including silicon nanopore membranes and automated isolation preservation.

The main focus of my PhD work is transplantation immunology so it was natural for me to gravitate towards presentations given by Immunologists such as Jonathan Bromberg who presented work on the role of the transcription factor T-bet (involved in promoting Th1 T cell differentiation) in regulatory T cell (Treg) function during the islet allograft response. He showed that mice transplanted with T-bet deficient Tregs rejected an islet allograft faster than mice receiving wildtype Tregs due to reduced expression of chemokine receptors CXCR3 and CCR5 and hence reduced migration to the graft site. These findings highlight a caveat for therapies

that target Th1 responses as these therapies may negatively impact the protective function of Tregs during the alloresponse.

The social highlight of the meeting was the conference dinner which was held in the world famous Monterey Bay Aquarium. Although some of the main exhibitions were closed, we were able to walk through the aquarium's amazing jelly fish exhibition before enjoying our dinner within the Open Sea Gallery.

Thank you to the TSANZ committee for giving me the opportunity to attend the IPITA world congress. And finally, happy 25th anniversary to IPITA!

Special Tribute

Dr. William (Bill) Boyle

On Thursday 8 December, one of our former colleagues and ASI member, William "Bill" Boyle, passed away. Bill was Associate Professor and Reader in Immunology in the Department of Microbiology and Immunology from 1970 until his retirement in 1998.

He was born in Glasgow in 1933, and undertook a Science degree with first class honours, and subsequently his PhD from Glasgow University. He worked with Allan Davies on mouse tissue cell antigens at the Microbiological Research Establishment in England where he was Senior Research Officer. In 1963 he joined the Division of Immunology at Duke University Medical Centre where he worked for seven years with Bernard Amos. During this time he pioneered the use of several now routine techniques including the isolation of leucocyte populations by Ficoll barrier centrifugation, and the use of the 51Cr release assay for cytotoxicity.

By 1970 he and his wife Mary had three young children, and decided that the best opportunities for their young family were to be found in Australia. He joined the Department of Microbiology (as it was then known) at the University of Melbourne, where his research interests included the areas of T cell activation, histocompatibility antigens and transplantation, and macrophage biology. His work was published in many journals including Nature

and J Exp Med. He supervised many Honours and Masters students and was a very expert coordinator of the department's Honours program for many years. He was also Ph. D. supervisor for many students, including Keryn Williams, Anne Kelso, Bill Heath, Robyn Sutherland and Andrew Nash. Bill served on NHMRC Assignor's panels and Regional Grants Committees for several years and was an active member of many professional societies, including the Australian Tissue Typing Association (ATTA), the Transplantation Society of Australia and New Zealand (TSANZ) and ASI, where he was Chair of the Education Committee in 1993 - 4.

Bill also took a major role in undergraduate teaching to undergraduate students, where together with Christina Cheers and Ian McKenzie (in the Department of Pathology until 1995), he developed the Immunology major for Science students at Melbourne University. He also provided medical students with an introduction to immunology that provided a framework for the new paradigms that they would encounter in the future.

Bill was an active participant in TSANZ meetings, & older members will fondly recall his fiery, but benevolent 'debates' with Kevin Lafferty.

After Bill retired from Melbourne University, he took up a part-time consulting role at the Austin Research Institute (ARI) at the Austin Hospital until the Institute merged with the Burnet Institute at the Alfred Hospital. At the ARI, Bill was most closely associated with Prof Mauro Sandrin's Transplantation Lab where he was warmly welcomed by all. At the ARI Bill was also a consultant for Prima Biomed Ltd--a public company commercializing the ARI's inventions--where Bill was an active member of the Scientific Advisory Board(SAB) and he was also a member of the SAB for Roche's CARG grants. Mark Hogarth, Director of the ARI at the time, recalled that of all the lecturers he had at Melbourne Uni--Bill's were the only ones he remembered!

Indeed, it is as a teacher and mentor that Bill will be most remembered and sadly missed. His enthusiasm for all aspects of immunology

and cell biology was palpable and infectious, and his approach to science was thoughtful and rigorous. Bill's contributions to both research and teaching to a generation of Science and Medical students leave a lasting legacy that many of us have much to be grateful for. He leaves behind his wife Mary, four children and five (nearly six) grandchildren.

Drs Sandra Uren & Ian McKenzie

Calendar of Events

12th Congress of the International Society of Organ Donor Procurement

21st - 24th November 2013

Sydney, Australia

For more information www.isodp2013.org

2014 Meetings

International On-line Course in Tissue Banking, Cell Therapy and Regenerative Medicine

24th - 25th May, 2014

For more information go to www.tpm.org

TSANZ Postgraduate Training Course and Annual Scientific Meeting

9th - 13th June, 2014

Canberra, ACT, Australia

World Transplant Congress

26th - 31st July, 2014

Moscone West Convention Center

San Francisco, California, USA

For more information go to www.wtc2014.org

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Cont'd Treasurer's Report

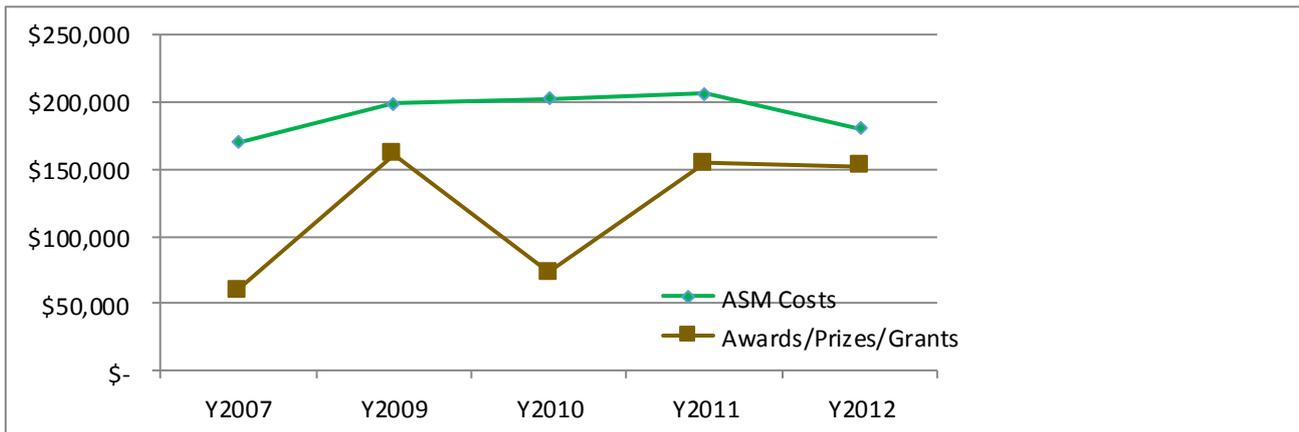


Figure 1. Major Operating Expenses 2007-2012. The majority of the annual operating expenditure is split between the Annual Scientific Meeting (ASM) and Prizes/Awards/Grants.. Note Y2008 has been excluded because the ASM was incorporated in the Sydney TTS meeting.

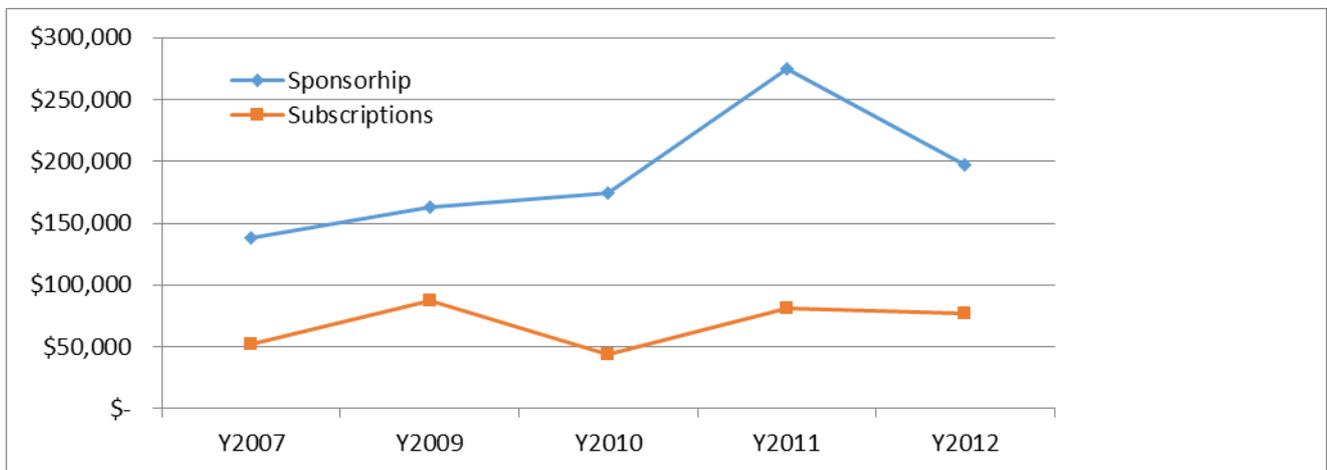


Figure 2. Major Operating Income 2007-2012. The majority of the annual operating income is from industry sponsorship. Subscription income has essentially been constant. Note Y2008 has been excluded because the ASM was incorporated in the Sydney TTS meeting.

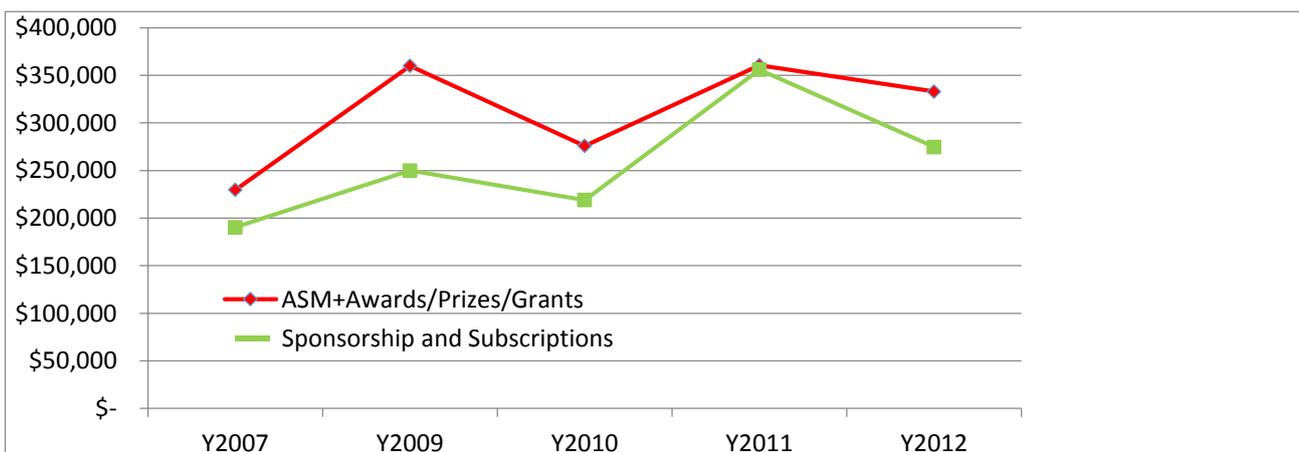


Figure 3. Major Operating Expenses vs Income 2007-2012. The main annual operating expenditure from the Annual Scientific Meeting (ASM) & Prizes/Awards/Grants has been consistently above the main sources of annual income from industry sponsorship & subscriptions. Note Y2008 has been excluded because the ASM was incorporated in the Sydney TTS meeting.