THE AUSTRALASIAN SOCIETY FOR BIOMATERIALS & TISSUE ENGINEERING

ASBTE *NEWS*

JUNE 2013

Annual ASBTE Conference 2013

The annual ASBTE conference, which was held in conjunction with the 5th Indo-Australian Conference on Biomaterials, Implants and Tissue Engineering took place in the Barossa Valley from the 2nd to the 5th of April 2013 at the Barossa Weintal Hotel in beautiful Barossa Valley. The conference was an outstanding success, with approximately 170 participants, a great location, great weather and great science. A big thanks again to Conference Chairs Nico Voelcker and Bryan Coad, the Conference Organising Committee and all other volunteers for putting together such an excellent conference!

The Annual General Meeting of the ASBTE was also held during this conference and a number of proposed changes to the rules, committee positions and membership fees were accepted by the membership.
The new model rules were proposed in order to comply with the Associations Incorporation Reform Act 2012. A big thanks goes in particular to Veronica Glattauer and John Ramshaw for completing this difficult and time-consuming task. Changes include the re-naming of positions. The position of Public Officer has changed to Secretary. The position of Secretary has changed to Executive Officer.
Furthermore, a new ASBTE committee (see below) and new ASBTE student representatives (see page 3) were elected. The membership fees will be increased slightly from $60 to $80 for full members and from $30 to $40 for student members (from 2014).

The freshly elected ASBTE Committee members (from left): Helmut Thissen (Executive Officer), Bryan Coad, Lisbeth Grondahl (President), Penny Martens (Treasurer and Secretary), Tim Woodfield (Vice President) and Travis Klein. Absent: Michael Mucalo and Tony Weiss.

ASBTE Website (www.biomaterials.org.au)
Any member wishing to supply news items, links, PhD scholarships, job listings, or other relevant information to the ***website*** should submit these to Michael Mucalo (m.mucalo@waikato.ac.nz) (p.martens@unsw.edu.au)

New Membership and Renewals: Membership Rates: Full Member (Calendar Year, from 2014) $80; Student Member (Calendar Year, from 2014) $40. Membership forms are available at www.biomaterials.org.au

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2013 ASBTE Annual Conference Awards

ASBTE is pleased to announce the winners of the 2013 Lab Travel Grant and ASBTE Conference Poster Awards

ASBTE Lab Travel Grant:
ASBTE is providing a travel grant to facilitate extended travel to a research laboratory during 2013:
George Wang (Swinburne University of Technology/CSIRO).

ASBTE Conference Poster Awards:
Best poster:
Morteza Hasanzadeh Kafshgari (Mawson Institute, University of South Australia)
Runner-up awardees:
Hsiu-Wen Chien (Department of Chemical Engineering, National Taiwan University, Taiwan)
Peter Koegler (Swinburne University of Technology/CSIRO)

View of the ASBTE conference dinner venue, where the awards were presented.

ASBTE Conference Oral Presentation Awards

Congratulations to the winners of the ASBTE Conference Presentation Awards

Jelena Rnjak-Kovacina:	Best presentation - Early career researcher
Kelly Tsang:	Best presentation - Overall
James Vassie:	Best presentation - Research involving Nano/Micro
Susan Cristo:	Best presentation - Student.

ASBTE conference award winners with sponsors (from left): Nico Voelcker (Conference Chair), Helena Rnjak, Kelly Tsang, James Vassie, Susan Christo, Grace Chan (Phillips Ormonde Fitzpatrick), Lisbeth Grondahl (ASBTE President).

Our new ASBTE Student Representatives

Queensland

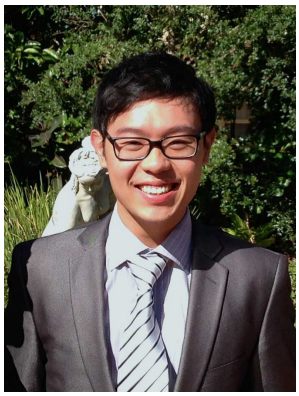
Robyn Aston

My name is Robyn Aston and I am a second year PhD student from the School of Chemistry and Molecular Biosciences at the University of Queensland. My research focuses on the development of biomaterials as a replacement for damaged articular cartilage of the knee. I am investigating biomaterials comprised of hydrogels with fillers incorporated to provide differences in structure and mechanical properties. The use of polymers that mimic the arrangement and properties of native cartilage is expected to promote integration of this material into native cartilage whilst increasing the degree of cross-linking within the hydrogel matrix is expected to result in enhanced mechanical properties. I aim to layer these hydrogels into a graded biomaterial with suitable structural, chemical and mechanical properties to integrate with and act as a suitable replacement for native articular cartilage of the knee in patients suffering from osteoarthritis. You can contact me under robyn.aston@uqconnect.edu.au.

Nishant Chakravorty

My name is Nishant Chakravorty and I am pursuing my doctoral studies at the Institute of Health & Biomedical Innovation, Queensland University of Technology. I am a medical graduate (MBBS) from India and have a Master's degree in Medical Science & Technology (MMST) from Indian Institute of Technology (IIT), Kharagpur, India. My PhD project focuses on studying the role of microRNAs (small non-coding RNAs) in osteogenic differentiation and osseointegration using topographically modified titanium implant surfaces. I aspire to build-up a career in medical research and implement my skills in tissue engineering and molecular biology for a better world. The ASBTE is a unique platform to share and discuss my scientific interests and I am glad to become a part of it. You can contact me under n.chakravorty@qut.edu.au.

New South Wales



Khoon Lim

My name is Khoon Lim, and I'm a third year PhD student under the supervision of Dr Penny Martens and Professor Laura Poole-Warren in the University of New South Wales. My thesis is focused on covalent incorporation of non-chemically modified proteins into degradable hydrogels for cell encapsulation in soft tissue engineering applications. As an international student in Australia (originally from Malaysia), ASBTE had been a good platform for me to expand my social network, especially in knowing other student in the biomaterials field. If any current or prospective student members have questions regarding the society, and future student activities, feel free to contact me at khoon.lim@unsw.edu.au.

Victoria

Peter Koegler

My name is Peter Koegler and I'm a second year PhD student at Swinburne University of Technology as well as CSIRO Materials Science and Engineering, both in Melbourne, and can be reached via Peter.Koegler@csiro.au or pkoegler@swin.edu.au. I've obtained my Bachelors and Masters Degree from Reutlingen University in Germany with a major in Polymer Chemistry. Currently I'm working on colloidal assemblies and surface modification strategies to control biointerfacial interactions. As a new ASBTE student representative here in Victoria I'm looking forward to organise regular get-togethers with invited speakers, giving particularly students the opportunity to meet and interact with their peers and senior researchers.

If you have recently published an exciting article of interest to ASBTE members please contact the editors of the newsletter - Bryan Coad (bryan.coad@unisa.edu.au) and Helmut Thissen (helmut.thissen@csiro.au).

Student Networking Night - Victoria

ASBTE Student Networking Night - Victoria

Swinburne University 07 June 2013

Peter Koegler has already taken the initiative and organised an ASBTE student networking event which will feature an invited speaker followed by a student get-together (which is expected to continue in one of the many pubs in Hawthorne).

The invited speaker is **Prof. Neil Cameron** from the Department of Chemistry, Durham University, Durham, UK who will talk about *"**Emulsion-templated Scaffolds for Tissue Engineering and 3D Cell Culture**"*.

Neil Cameron

Where: Advanced Technologies Centre (ATC) Building, Room 205, Swinburne University (Corner John Street and Burwood Highway, Hawthorn)

When: 3-5 pm, Friday 7th June 2013

ASBTE Representatives

ASBTE Representatives

It is important for the Society to be represented nationally and internationally, for example in the international liaison committee of the International Union of Societies for Biomaterials Science and Engineering (IUSBSE) and in Science and Technology Australia (STA). The following representatives have been confirmed during the Annual General Meeting of the ASBTE. Please contact your representatives with any questions.

IUSBSE/ILC Delegates

Prof. Laura Poole-Warren (University of New South Wales) - l.poolewarren@unsw.edu.au

Prof. Justin Cooper-White (University of Queensland/CSIRO) - j.cooperwhite@uq.edu.au

STA Liaison Officer

Dr. Kate Fox (University of Melbourne) - kfox@unimelb.edu.au

Annual ASBTE Conference 2014

Annual ASBTE Conference 2014

In 2014 the Annual ASBTE Conference will be held in Victoria on the Great Ocean Road close to Melbourne as well as Avalon Airport. At this stage, an organising committee has been formed to finalise the details, for example in regard to the venue. Please note the dates already in your calendar (Tuesday - Thursday in the week following Easter):

22nd – 24th April 2014

Great Ocean Road, Victoria

UniSA set to lead new CRC for Cell Therapy Manufacturing

In a world first, the newly established Cooperative Research Centre for Cell Therapy Manufacturing will bring together the spectrum of skills and facilities required to turn a promising cell into a viable cell therapy. The Centre's vision is to provide new treatments and develop new materials-based manufacturing technologies to increase the accessibility, affordability and efficacy of cell therapies. With a total of $59M in cash and in-kind resources, including a $20M grant from the Government, the Centre will develop smart material interventions to facilitate the cost-effective manufacture and rapid translation of cell therapies into clinical practice.

The GMP cleanrooms at UniSA's Mawson Lakes campus will underpin manufacturing activities within the CRC (Picture: University of South Australia).

Based at the University of South Australia, the Centre's national and international partners include research providers, manufacturers, hospitals and charities. Underpinning this partnership is a newly established cGMP manufacturing facility at UniSA's Mawson Lakes campus, designed to deliver cell-based therapeutics for the Centre's first-in-man clinical trials.

The Centre's research activities will be managed through two integrated research programs. Program 1 (Materials and Bioprocessing) will develop new materials and surfaces to enable the cost-effective isolation, expansion and delivery of therapeutic cells, while Program 2 (Clinical Translation) will validate these innovations through preclinical testing and clinical trials of novel cell populations and delivery devices. Initially the Centre's research will focus on mesenchymal stem cells, endothelial progenitor cells, T-regulatory cells and pancreatic islets. Potential clinical applications for these cells include diabetes, chronic wound repair and autoimmune disorders.

The Centre will also train a new generation of highly skilled graduates, including PhD students with entrepreneurial skills to support Australia's expanding cell therapy industry.

Head of the new CRC, UniSA's Professor Rob Short, says the goal of the research over the next six years will be to bed down a new cell therapy manufacturing industry in SA and create hundreds of new jobs, many in advanced manufacturing. "Twenty years ago Australia was at the vanguard of research into cell therapy and transplant medicine and technology, but to keep ahead in the application of these wonderful possibilities, they need to be underpinned by advanced manufacturing and materials science technology," Prof Short says.

"The advantage of the CRC model is that it is dynamic - scientists can work in-step with industry and much closer to where their science will be applied, so that there is constant communication about what works and what doesn't." Prof Short says the CRC for Cell Therapy Manufacturing, to be headquartered at UniSA's Mawson lakes campus, will bring together materials scientists, cell biologists, bioprocess engineers, clinicians and industry to increase the affordability and accessibility of cell therapies and position Australia at the leading edge of cell therapy manufacture.

"Cell therapies offer exciting new possibilities for a range of previously incurable and difficult-to-treat medical conditions including Type 1 diabetes which affects more than 100,000 Australians". "They will also provide a platform for healing life-threatening ischemic foot wounds and progress a new technology for organ transplants that could negate the need for immunosuppressive drugs, based upon special cells known as T-regs, which can "police" the immune system".

The CRC will comprise local, national and global manufacturers, researchers from the Queensland University of Technology, Sydney University, the Royal Adelaide Hospital, St. Vincent's Institute and Westmead Hospital as well as some key charities.

The newly established Minerals and Materials Science building on UniSA's Mawson Lakes campus houses the CRC's GMP suite (Picture: University of South Australia).

ASBTE Award of Excellence 2013

Jerome Werkmeister

Congratulations to Dr. Jerome Werkmeister, who was awarded the ASBTE AWARD of Excellence 2013. This award recognises a member of ASBTE who has made a significant contribution to the Society and has an outstanding record in developing, maintaining and promoting the goals of the Society.

Dr. Jerome Werkmeister is a Chief Research Scientist at CSIRO Materials Science and Engineering in Clayton VIC where he is heading the cell and tissue laboratories. He has particular expertise in the development of materials for wound repair including pelvic organ dysfunction, cartilage systems, and tissue sealants for dura, lung, GI and other areas. He has extensive experience in extracellular matrix proteins, recombinant collagen design and collagen-based biomaterials for applications in wound healing areas. More recently he has made key contributions to the development of a new photo-crosslinking technology that can be used with various biological and matrix proteins. He has more than 160 published papers in peer-reviewed journals, a number of patents and has been an invited keynote and plenary lecturer at many key biomaterials meetings around the world.

Dr. Werkmeister serves on the editorial board of several international biomaterial journals and currently sits on the Standards Australia Technical Committee on Surgical Implants and the TERMIS-AP Science Council. He was a co-founder and Secretary of the Australasian Society for Biomaterials and Past President for a number of years. Dr. Werkmeister has been internationally recognised for his scientific contributions to the field of biomaterials science by the award of Fellow, Biomaterials Science and Engineering.

Services to the society, which continue to this day, have included:

One of 5 founding members
Society President 1994 - 1996
Society Vice-President: 1996 - 1997
Society Secretary: 1990 - 1994 and 1997 - 2004
Conference organiser, inaugural meeting of the Society in Kyneton (1990), and subsequently for society meetings in 1992 (3rd, Clayton), 1995 (5th, Melbourne), 1998 (8th, Marysville), 2000 (10th, Melbourne), 2001 (11th, Beechworth), 2004 (14th, Sydney) and 2007 (17th, Mt. Eliza)
Organising Committee Member and Program Co-Chair of the 7th World Biomaterials Congress in Sydney (2004)

Apart from elevating the profile of the Society nationally and internationally, his tireless contributions have also been the key to establishing the healthy financial position of the ASBTE, which all members enjoy to this day.

Congratulations again!

ASBTE NEWS is a biannual newsletter that covers news from The Australasian Society for Biomaterials & Tissue Engineering. If you have a news item that you wish to be included please contact the editors:

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