

ACCTERM Newsletter



Director's Message

Welcome to the eight issue of the Australia-China Centre for Tissue Engineering and Regenerative Medicine's newsletter and our final one for the year. It was a busy few months for the centre as we prepared for our fourth ACCTERM Research Forum and organised the 16th Australasian Bioceramic Symposium. Thankfully, everything went smoothly and it was agreed by all that both events were a resounding success! I would like to express my gratitude to Dean Bin Cheng, Professor Zhengmei Lin, Sun Yat-sen University and SALIAI Stem Cell Science and Technology Co. Ltd. for being such excellent hosts of the forum this year. The new format—which included several break-out groups and discussions along with a trip to Guangzhou International Bio-island—resulted in several new collaborative projects being formulated which will, no doubt, lead to more fruitful outcomes and strengthen the core activity of ACCTERM. Finally, on behalf of ACCTERM, I would like to wish you all a happy and healthy Christmas. I look forward to what 2016 will bring!

Professor Yin Xiao

Inside this Issue:

- Director's message
- ABC 2016
- 2016 ACCTERM Research Forum
- Photographs
- QUT & SICCAS Joint Lab
- Grant updates

16th Australasian BioCeramic Symposium

Last week, over 100 leading experts in bioceramics gathered at QUT, Gardens Point for the 16th Australasian Bioceramic Symposium. The ABC symposium has been held annually in Asian countries since 2001, gathering scientists, engineers, manufacturers, dentists and surgeons from Asia and all over the world. ACCTERM, with support from QUT, IHBI and The Ian Potter Foundation were honoured to be the first Australian hosts of the event. The two day event was jam packed with over 50 oral presentations, a conference dinner and 30 digital poster presentations. Topics discussed included: bioceramics, biomaterials, bone tissue engineering and 3D printing. The symposium provided an opportunity for attendees to share their research and to discover collaborative potential with other experts in their field.

2016 ACCTERM Research Forum

QUT delegates have recently returned from Guangzhou, China where the 4th ACCTERM Forum was held.

The annual forum - hosted this year by the Institute of Health and Biomedical Engineering (IHBI) and the Guanghua School of Stomatology, Sun Yat-sen University - brought together leading experts in the field of tissue engineering, regenerative medicine, 3D printing and additive manufacturing from Australia, China and America. Key partners represented at the Forum included Wuhan University, Shanghai Institute of Ceramics-Chinese Academy of Sciences, Zhejiang University, Huazhong University of Science and Technology, Nanjing University, Jinan University, Peking University, Shanghai Jiaotong University, and Capital Medical University. Throughout the three day forum, researchers, practitioners, and decision makers discussed a wide range of topics covering collaborative research projects, academic and student exchange, joint degree opportunities and grant options. Presentations were delivered by IHBI Director Professor Lyn Griffiths, Office of Research Director Mr Michael McArdle and the Head of School (CPME) Professor John Bell. This year there was a particular focus on the importance of translational medicine and future research within ACCTERM. On day three delegates travelled to the recently established Guangzhou International Bio-island. This state of the art facility was opened in 2011 and houses over 100 biotechnology companies. SALIA Stemcell Science and Technology Co. Ltd. provided the backdrop for fruitful discussions centering around the challenging commercialisation issues that tissue engineering and regenerative medicine researcher's encounter. Professor Xiao would like to say a special thank you to Dean Bin Cheng, Associate Dean Zhengmei Lin, President Haijia Chen of SALIA and all the staff at the Guanghua School of Stomatology, Sun Yat-sen University for being such generous hosts.



ACCTERM Newsletter

A sample of photographs from this year's forum



ACCTERM Newsletter



ACCTERM Newsletter



International Collaborations

QUT and the Shanghai Institute of Ceramic, Chinese Academy of Sciences (SICCAS) have further cemented a long-running collaboration with the opening of the Joint Laboratory of Biomaterials and Tissue Engineering, in Shanghai. The laboratory is a significant move in QUT and SICCAS' joint research since 2013 when the two organisations signed an MOU to work together to enhance scientific and institutional cooperation in tissue engineering and regenerative medicine. QUT Deputy Vice-Chancellor Arun Sharma (pictured unveiling the plaque with Professor Lixin Song) said that QUT brought research strengths in automation, big data and extreme customisation to the challenges of regenerative medicine. "QUT has had a fruitful and important collaboration with SICCAS in the field of customised biomaterials for individual patients," Professor Sharma said. "The collaboration has added to the body of knowledge on regenerative medicine. There have been 51 papers, one book and three book chapters jointly published by SICCAS and QUT since 2010." SICCAS director Professor Lixin Song said SICCAS was engaged in advanced inorganic non-metallic materials research. "It has achieved outstanding results in pioneering basic research, innovation of high-tech materials and applied research," Professor Song said. "Its main research areas include high performance ceramics and superfine microstructures, structural ceramics and composites, inorganic functional materials and devices, energy materials, inorganic coatings, artificial crystals, and biomaterials and tissue engineering."

ACCTERM was pivotal in facilitating the communication between the two universities. The establishment of the joint laboratory consolidates ACCTERM as a hub for international research collaborations and continues to strengthen partnerships in China.



Recent Grants Awarded

1. Ian Potter Foundation Conference Grant

ACCTERM's application for sponsorship for the 16th Asian BioCeramics Symposium was successful. The \$3,000 provided by the Ian Potter Foundation was used to cover the cost of registration and accommodation for three keynote speakers.

2. Endeavour Research Fellowship

Dr Yinghong Zhou was awarded \$24,500 by the Department of Education and Training. This financial support will allow Dr Zhou to visit Texas A&M University College of Dentistry for a six month period.

3. ASBTE Lab Travel Award

Dr Yinghong Zhou was successful in securing \$800 from the Australasian Society for Biomaterials and Tissue Engineering. The travel award gave Dr Zhou the opportunity to visit Shanghai Institute of Ceramics, Chinese Academy of Sciences and participate in the opening of the joint laboratory.

Recent Grants Submitted

Scheme: Guangdong Provincial Science & Technology Research Grants (GDST)

Researcher: Zhuofan Chen (Sun Yat-sen University) & Yin Xiao (QUT)

Title: Personalized design of 3D printing bone materials

Amount: \$200,000

Scheme: Guangdong Provincial Science & Technology Research Grants (GDST)

Researcher: Xuechao Yang (Guangzhou Medical University) & Yin Xiao (QUT)

Title: Cell-based 3D printing bifunctional bioscaffold for periodontal tissue regeneration

Amount: \$200,000

Scheme: Guangdong Provincial Science & Technology Research Grants (GDST)

Researcher: Weimin Zhang (SALIAI Stemcell Science and Technology Co. Ltd.) & Yin Xiao (QUT)

Title: Adipose tissue-derived stem cells for joint repair

Amount: \$200,000

Contact ACCTERM

Phone: 3138 6240

Email: accterm@qut.edu.au

Website: www.qut.edu.au/research/accterm