

ACCTERM Newsletter



Professor Yin Xiao

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Director's Message

Welcome to the sixth issue of the Australia-China Centre for Tissue Engineering and Regenerative Medicine's newsletter.

The purpose of this newsletter is to keep you informed of news and events happening within ACCTERM. I would like to take this opportunity to draw your attention to the ACCTERM website. It too is full of information on the program; including our collaborative partners, current projects and latest news.

It has already been three years since we decided to establish ACCTERM. Time flies! I can't believe that ACCTERM has been with us for more than a quarter of a 12-year cycle of the Chinese Zodiac - the year of the snake, sheep, horse, and monkey. I am so proud of the achievements made by the individuals and teams within the centre. More importantly, collaborations and exchange programs within ACCTERM are generating fruitful research outcomes in terms of research grants, publications and student exchanges. Long may it continue.

Best wishes,
Professor Yin Xiao

Planning is underway for the 4th ACCTERM Research Forum

This year's forum will take place from 12-14 November at Sun Yat-sen University in Guangzhou, China. The forum will be held over three days which will allow sufficient time for presentations, group discussions and meetings with biotech companies. This forum will give researchers the opportunity to discuss a number of topics including: bilateral funding opportunities, industry partnerships and the direction of ACCTERM's research goals.

Research to Publication

A number of joint scientific journals have recently been published as a direct result of our collaborative research with our Chinese Partners.

- Chen Z, Klein T, Murray RZ, Crawford R, Chang Jiang, Wu C, Xiao Y (2015). Osteoimmunomodulation for the development of advanced bone biomaterials. *Materials Today*. doi:10.1016/j.mattod.2015.11.004
- Shi M, Chen Z, Farnaghi S, Friis T, Mao X, Xiao Y, Wu C (2016). Copper-doped mesoporous silica nanospheres, a promising immunomodulatory agent for inducing osteogenesis. *Acta Biomaterialia*, 15(30), pp. 334-344.
- Wu C, Chen Z, Wu Q, Yi D, Friis T, Zhai D, Zheng X, Chang J, Jiang X, Xiao Y (2015). Clinoenstatite coatings have high bonding strength, bioactive ion release, and osteoimmunomodulatory effects that enhance *in vivo* osseointegration. *Biomaterials*, (71), pp. 35-47.

Electronic copies of all ACCTERM publications are available for download at [QUT ePRINTS](http://QUT.ePRINTS).



5-6 December 2016
Queensland University of Technology
www.abc2016.com.au

1st Australasian Bioceramics Symposium

In partnership with the Queensland University of Technology (QUT), ACCTERM are set to host ABC2016 later this year. The ABC symposium has been held annually in Asian countries since 2001, gathering scientists, engineers, manufacturer, dentists and surgeons from Asia and all over the world. This year's symposium will be held in Brisbane, Australia at QUT's Garden Point Campus. We hope that this symposium will provide opportunities for researchers to present advanced research works in this attractive field and to have fruitful discussions on the future development of bioceramics.

CALL FOR ABSTRACTS NOW OPEN!

ACCTERM makes it to Canberra!

The Hon Julie Bishop MP, Minister for Foreign Affairs, addressed the Australia China Business Council Networking Day in Canberra on 2nd of March 2016. We were delighted to hear that in her speech she highly praised the research collaborations led by the Australia-China Centre for Tissue Engineering and Regenerative Medicine. The Minister for Foreign Affairs said “This joint venture between Australian and China in this exciting area of growth really sums it up, that we’re working together in areas where we both have an interest and expertise, and it will most certainly lead to greater collaboration in other areas of science and technology”.

Recent grants submitted — Good luck to all involved

Scheme: ARC Training Centre in Additive Biomanufacturing

Researchers: **Dietmar Hutmacher**, Gordon Wallace, Milan Brandt, Ian Gibson, Peter Choong, **Travis Klein**, **Yin Xiao**, **Prasad Yarlagadda**, **Maria Woodruff**, **Michael Schuetz**, Stephen Beirne, Martin Leary, Claudia Di Bella, **Chengtie Wu**, Robert Thompson, Jing Lim, Grant Pang, Tomas Kron, Steven Kennedy

Scheme: ARC Discovery Project

Researchers: **Zhiyong Li**, **Yinghong Zhou**, **Prasad Yarlagadda**, **Yan Cai**

Title: Multiscale modelling of angiogenesis and microcirculation

Amount: \$608,575

Scheme: ARC Discovery Project

Researchers: **Yin Xiao**, **Chengtie Wu**, **Jiang Chang**, **Ken Beagley**

Title: Macrophage autophagy in nanomaterial-induced inflammatory response

Amount: \$670,924

Scheme: NHMRC Project Grant

Researchers: **Yin Xiao**, **Saso Ivanovski**, **Chengtie Wu**, **Yinghong Zhou**

Title: Prototyping bioactive scaffolds with multifunctional properties for periodontal regeneration

Amount: \$403,781

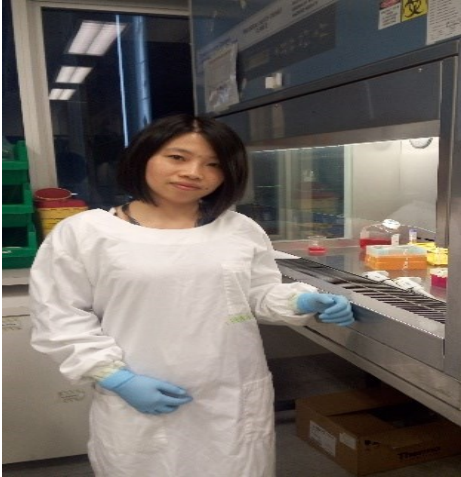
Scheme: NHMRC Project Grant

Researchers: **Saso Ivanovski**, **Yin Xiao**, Mark Bartold, Lisa Heitz, **Cedryck Vaquette**, Stephen Hamlet

Title: Regenerative treatment of peri-implantitis using bone constructs with osteogenic, immunomodulatory and antimicrobial properties

Amount: \$710,000

Short-Term Mobility Program Review



ACCTERMs Short-term Mobility Program provides funding opportunities for reciprocal exchange of higher degree research students from Chinese partner institutes/universities to QUT or from QUT to Chinese partner institutes/universities on a short-term basis. Late last year we welcomed Mengchao Shi and Yingjie Li to IHBI. Here's what they had to say about their experience...

“Very lucky to have got the chance to experience doing research in a foreign lab, to learn new skills, to meet with lots of new friends and enjoy everyday life abroad. For those who are not so confident about self-independence, language skills and other abilities, it just gives you the chance to challenge and to try. If you are curious about the life in Australia and still hesitate to make decisions on whether to continue your study/work abroad, this program is one of the best choices to help you make up your mind”. **Mengchao**

“During 7th Nov to 31th Dec, I spent a splendid time in Australia that I will never forget in my lifetime. I really loved the ACCTERM short-term mobility program because the experimental environment in IHBI is favorable and the people here are so nice and kind. I hope to participate in a two-year post-doctoral work next year. I will definitely recommend my friends to take part in this program”. **Yingjie**

QUT strengthens partnerships in China

QUT Vice-Chancellor Professor Peter Coaldrake, along with ACCTERM director Professor Yin Xiao and other senior staff members have just returned from a trip to China where a number of agreements were signed with partner universities. QUT is already a partner with a number of Chinese universities thanks to the efforts of our centre and ACCTERM was once again pivotal in facilitating the communication between these two universities. The recent agreements further cements ACCTERM as a hub for international research collaborations and continues to strengthen partnerships in China.

Professor Peter Coaldrake, Professor Scott Shepherd, Professor Gordon Wyeth and Professor Yin Xiao attended the signing ceremony of an agreement to establish a joint PhD program between the East China University of Science and Technology (ECUST) and QUT on 13th March 2016. A potential joint research laboratory between QUT and ECUST was initiated for the next stage of development of ACCTERM by ECUST.

QUT representatives also attended the signing ceremony to renew the strategical collaboration that is already in place between the Shanghai Institute of Ceramics, Chinese Academy of Sciences, and Queensland University of Technology on 16th March 2016.



Sealing the deal! Pictured above are Professor Peter Coaldrake (QUT VC) and Professor Jingping Qu (ECUST President) at the signing ceremony.

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and Biomedical Innovation