



# ICMRS Education Newsletter

November 2015

ICMRS Education Committee

Executive Editors: Minyi Hu, PhD and Daniel Leong, PhD

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## I. Message from the President, Dr. James H-C. Wang



*ICMRS (formerly known as ICHTS) was founded in 1994 by Dr. Webster Jee and a group of overseas Chinese scientists interested in bone research. The ICMRS mission is to promote scientific and professional excellence, and enhance communication among scientists of Chinese heritage and other international scholars in the field of musculoskeletal research and related areas. Thanks to more than two decades of dedicated efforts by former presidents, BOD chairs and other societal officers as well as members, ICMRS is now a vibrant society consisting of around 2000 members across 24 countries in musculoskeletal research and related fields. ICMRS also has 18 Collaborating Centers in mainland China and Hong Kong. We also have two official journals, Bone Research, and Journal of Orthopaedic Translation, and a society office at West China School of Stomatology, Sichuan University, China. Our society is growing stronger than ever.*

*Like many middle age rising scientific societies, we also foresee future challenges, mainly in three aspects: stability, sustainability and quality. Many current senior ICMRS members are full Professors in academic institutes and Executives in industries, who are the driving forces of the society. ICMRS stability requires involvement of younger generation scholars and investigators in the musculoskeletal field. Identifying and fostering the growth of these young researchers will ensure continuance of the ICMRS mission and development/adaptation the society to the changing times.*

*Our society also faces a sustainability threat. Current ICMRS operations mainly depend on funds acquired from fund raising events and donations. However, considering that our society has now reached ~2000 members and continues to grow, this mode of operation is not sustainable in the long run. Like the vast majority of other societies, our operation must be transitioned to a membership-fee based operation. Therefore, membership reform is unavoidable for our society to have a healthy and professional growth.*

*Finally, with more and more members as well as collaborating centers joining the society, ICMRS faces challenges in quality control. As the President, I would like to work closely with our new leadership team and our members like you to address these challenges and do my best to lead the society effectively so that ICMRS will stand out among the many competitive peer societies in the near future.*

*Sincerely,*

*James H-C. Wang*

## **II. Meeting Information and Updates**

### **News Report of 2015 ICMRS-ASBMR Membership Meeting at Seattle**

The annual ICMRS-ASBMR Membership Meeting was held in Seattle on October 8, 2015. The meeting was started with the Welcome Remark given by Dr. Tingting Tang, Chair of Program Committee and current President-Elect. Dr. Sylvia Christakos, from Rutgers-New Jersey Medical School was invited to give a keynote speech entitled "Vitamin D: effects on skeletal and extraskelatal health; update 2015". The annual Webster Jee Young Investigator Awards were then presented to awardees including Tianqian Hui from Rush University Medical Center, Haoruo Jia from University of Pennsylvania, and Changjun Li from Johns Hopkins. The award ceremony was followed by a report given by out-going President, Dr. Xu Cao on the development of ICMRS over the past two years, which covered areas of membership growth, a financial report, establishment of new collaborating centers and the successful second ICMRS-ASBMR International Chinese Musculoskeletal Research Conference held in Changsha, China in April this year. Finally an address was given by incoming President, Dr. James Wang, who introduced each committee chairs and presented his vision of continued growth for

ICMRS. More than 100 ICMRS members and scientists attended the meeting. For more information about the conference, please visit the ICMRS website.



*Dr. Sylvia Christakos giving the keynote speech.*



*Dr. James H-C. Wang addressing the 2015 ICMRS-ASBMR Meeting*

## 1<sup>st</sup> International Combined Meeting of the Orthopaedic Research Societies

September 21-25, 2016. Xian, Shanxi Province, China  
Location: Kempinski Hotel Xian

For details, please see: <http://i-cors.org/event/icors-2016/>.

## 8<sup>th</sup> International Conference on Osteoporosis and Bone Research

October 20-23, 2016, Chongqing, China

*Sponsored by the ICMRS and Chinese Society of Osteoporosis and Bone Mineral Research Society (CSOBMR), the 8th International Conference on Osteoporosis and Bone Research (ICOBR2016) will be held on Oct. 20-23, 2016, in Chongqing, China. For more than a decade, the bi-annual ICOBR has played a very important role serving as a platform for scientific exchanging, networking and training for this developing field. The attendees have been growing up every conference.*

*The 8th ICOBR will invite world renowned professors, scholars and researchers to share their most up-to-date findings. The 8th ICOBR program will include both educational and scientific components, and an extensive review and update of cutting edge research in this promising field.*

*Chongqing is a historical port city with the largest municipal area and population in China. It is situated in the upper reaches of the Yangtze River at the confluence of the Yangtze and Jialing Rivers in southwest region of China. Since the Qin Dynasty (221 BC – 206 BC), perched beside the Yangtze, the “Golden River,” Chongqing symbolizes Yangtze River civilizations and is the cradle of Bayu culture. Chongqing is now one of the largest cities in China and the World, combined with both historical cultural and modern features.*

*Details can be found at <http://www.csobmr.org.cn/2016>.*

*Looking forward to seeing our members in Chongqing!*

*Reported by  
Yi-Xian Qin*

## III. Highlights of ICMRS Collaborating Centers

### SKLOD-ICMRS Collaborating Center for Craniofacial Translational Research

The State Key Laboratory of Oral Disease (SKLOD) was founded in 1936 in West China Union University. The lab was later upgraded as the first key laboratory of stomatology by the Ministry of Public Health in 1989 and the key laboratory of the Ministry of Education in 2002. In 2007, the lab was further developed to be the only national laboratory of oral science in China and named as the State Key Laboratory of Oral Disease (Sichuan University) by the Ministry of Science and Technology of China. It is

considered as an important research base for researchers and postgraduate students nationwide. The State Key Laboratory of Oral Diseases-ICMRS Collaborating Center for Craniofacial Translational Research was established in 2013.

The collaborating center is actively engaged in basic and translational research on the mechanisms and therapeutics of musculoskeletal diseases, particularly those with craniofacial involvement. Biomechanical and biomedical engineering research regarding craniofacial defects, biomaterial scaffold and tooth implant for the restoration of dentition defects, and stem cell and gene therapy for craniofacial anomalies are the main focuses of the collaborating center. Clinical translation of basic research outcome also attracts the most efforts in the center. Novel biomaterials, orthodontic braces and tooth implants have been developed and evaluated in clinical trials, and a series of hydroxyapatite-coated tooth implants have been manufactured and used in many dental hospitals/clinics in China. The long-term objective of the SKOLD-ICMRS Collaborating Center is to develop the center to be one of the best international laboratories on craniofacial diseases with excellent investigators, researchers, resources and techniques.

The personnel of the center consists of numerous world leading scientists including academicians of Chinese Academy of Engineering, and a foreign associate of the National Academy of Engineering of the US. Each year the center carries out a large number of key projects at both state and provincial levels, including the “973” and “863” program. In 2014, the Bone Research journal sponsored by the center was indexed by Science Citation Index Expanded (SCIE) and obtained its first impact factor in 2015.

The collaborating center is an open laboratory. We share facilities and resources with all investigators and undergraduate students worldwide. We warmly welcome researchers and undergraduate students all over the world to join us and make scientific study more successful and prosperous.



*The ICMRS board member committee meeting 2013 in Baltimore decided to develop the SKLOD-ICMRS Collaborating Center as the Secretariat of ICMRS*

## IV. ICMRS-Sponsored Journals

### **Bone Research**

Bone Research was founded in 2013 as a collaboration between Chinese and US bone scientists, and is supported by ICRMS. The aim of the Journal is to foster the worldwide dissemination of research in bone-related physiology, pathology, disease, and treatment, particularly between Chinese and other bone scientists. The Editor-in-Chief is Professor Zhou Xue-dong of Sichuan University, China. The Founding Editor and Executive Editor-in-Chief are Professors Xu Cao and Thomas L. Clemens from Johns Hopkins University.

In 2014, Bone Research is officially co-published with Nature Publishing Group. Due to the joint efforts, Bone Research has been accepted for coverage in the Web of Science Core Collection and PubMed Central. Coverage will begin with the first issue of Volume 1. You could see the journal articles in SCI and PMC websites. Followed are the Highlights of the publications in Bone Research. For more details, please check the journal website at: <http://www.nature.com/boneres>.

#### Recent articles in Bone Research

1. **Nanomaterials and bone regeneration.** Tao Gong, Jing Xie, Jinfeng Liao, Tao Zhang, Shiyu Lin, & Yunfeng Lin. Bone Research. 2015; 3: 15029.  
<http://www.nature.com/articles/boneres201529>
2. **A comprehensive study of long-term skeletal changes after spinal cord injury in adult rats.** Tiao Lin, Wei Tong, Abhishek Chandra, Shao-Yun Hsu, Haoruo Jia, Ji Zhu, Wei-Ju Tseng, Michael A Levine, Yejia Zhang, Shi-Gui Yan, X Sherry Liu, Dongming Sun, Wise Young, & Ling Qin. Bone Research. 2015; 3: 15028.  
<http://www.nature.com/articles/boneres201528>
3. **Rho/Rock signal transduction pathway is required for MSC tenogenic differentiation.** Edward Maharam, Miguel Yapor, Nathaniel L Villanueva, Takintope Akinyibi, Damien Laudier, Zhiyong He, Daniel J Leong, & Hui B Sun. Bone Research. 2015; 3: 15015.  
<http://www.nature.com/articles/boneres201515>
4. **Ex vivo 3D osteocyte network construction with primary murine bone cells.** Qiaoling Sun, Yexin Gu, Wenting Zhang, Leah Dziopa, Jenny Zilberberg, & Woo Lee. Bone Research. 2015; 3: 15026.  
<http://www.nature.com/articles/boneres201526>
5. **Notch signaling controls chondrocyte hypertrophy via indirect regulation of Sox9.** Anat Kohn, Timothy P Rutkowski, Zhaoyang Liu, Anthony J Mirando, Michael J Zuscik, Regis J O'Keefe, & Matthew J Hilton. Bone Research. 2015; 3: 15021.  
<http://www.nature.com/articles/boneres201521>

## Journal of Orthopaedic Translation

The Journal of Orthopaedic Translation (JOT) is the official peer-reviewed publication of the Chinese Speaking Orthopaedic Society (CSOS) and the International Chinese Musculoskeletal Research Society (ICMRS), with an office in Hong Kong at the Chinese University of Hong Kong. It is published quarterly by Elsevier. All material published in the JOT is freely available at [www.e-jot.com](http://www.e-jot.com).

### Highlights from the most recent issue of JOT

October 2015, Volume 3, Issue 4.

**Biomedical imaging in translational orthopaedic research.** Yi Xiang J. Wang, James F. Griffith. p157-159.

[http://www.e-jot.com/article/S2214-031X\(15\)00066-2/fulltext](http://www.e-jot.com/article/S2214-031X(15)00066-2/fulltext)

**Musculoskeletal regeneration research network: A global initiative.** Kai-Ming Chan, Christer G. Rolf, Ling Qin, Li Felländer-Tsai, Rene M. Castelein, Daniël B.F. Saris, Jos Malda, Geoff Richards, Stuart B. Goodman, Rocky S. Tuan, William Maloney, Lars Lidgren, Chelsea Hopkins, Sai-Chuen Fu, Gang Li, Ming Ding, TingTing Tang, XiaoLing Zhang, Lei Wei, Herb B. Sun, HongWei Ouyang. p160-165.

[http://www.e-jot.com/article/S2214-031X\(15\)00064-9/fulltext](http://www.e-jot.com/article/S2214-031X(15)00064-9/fulltext)

**Multimodal imaging of bone metastases: From preclinical to clinical applications.** Stephan Ellmann, Michael Beck, Torsten Kuwert, Michael Uder, Tobias Bäuerle. p166-177.

[http://www.e-jot.com/article/S2214-031X\(15\)00057-1/fulltext](http://www.e-jot.com/article/S2214-031X(15)00057-1/fulltext)

**Quantitative computed tomography and opportunistic bone density screening by dual use of computed tomography scans.** Alan D. Brett, J. Keenan Brown. p178-184.

[http://www.e-jot.com/article/S2214-031X\(15\)00063-7/fulltext](http://www.e-jot.com/article/S2214-031X(15)00063-7/fulltext)

**Computational modelling of bone augmentation in the spine.** Sandro D. Badilatti, Gisela A. Kuhn, Stephen J. Ferguson, Ralph Müller. p185-196.

[http://www.e-jot.com/article/S2214-031X\(15\)00067-4/fulltext](http://www.e-jot.com/article/S2214-031X(15)00067-4/fulltext)

**Improved differentiation between knees with cartilage lesions and controls using 7T relaxation time mapping.** Cory Wyatt, Aditi Guha, Anand Venkatachari, Xiaojuan Li, Roland Krug, Douglas E. Kelley, Thomas Link, Sharmila Majumdar. p197-204.

[http://www.e-jot.com/article/S2214-031X\(15\)00041-8/fulltext](http://www.e-jot.com/article/S2214-031X(15)00041-8/fulltext)

**Postmenopausal Chinese women show accelerated lumbar disc degeneration compared with Chinese men.** Yi Xiang J. Wang. p205-211.

[http://www.e-jot.com/article/S2214-031X\(15\)00065-0/fulltext](http://www.e-jot.com/article/S2214-031X(15)00065-0/fulltext)

**Cartilage imaging of a rabbit knee using dual-energy X-ray microscopy and 1.0 T and 9.4 T magnetic resonance imaging.** Ying Zhu, Sarah L. Manske, Steven K. Boyd. p212-218.

[http://www.e-jot.com/article/S2214-031X\(15\)00056-X/fulltext](http://www.e-jot.com/article/S2214-031X(15)00056-X/fulltext)

#### **V. Message from the Chair of ICMRS Education Committee**

*Dear ICMRS members,*

*I would like to express my sincere thanks to each of the members of ICMRS and the members of the Educational committee who contributed to this newsletter and make it possible. In particular, I would like to thank Dr. Minyi Hu and Dr. Daniel Leong for their outstanding job as Executive Editors for this issue of the Newsletter.*

*Under the current leadership and guidance, this will be the last issue of this newsletter. As a final note, I would like to express my sincere thanks to Dr. Xu Cao and Dr. James Wang, the previous and current presidents, the leadership and the members of ICMRS for the opportunity for the Education Committee to serve you by the newsletters. While the function of ICMRS website is becoming more advanced, we are committed and look forward to providing our educational committee services via internet and other means to you and the society.*

*Finally, as the holiday season is approaching, I would like to wish you and your loved ones a very joyous holiday season and the very best.*

*Sincerely,*

*Hui (Herb) B. Sun, PhD  
Chair, ICMRS Education Committee*