### Summary Report 2<sup>nd</sup> CUHK International Symposium on Stem Cell Biology and Regenerative Medicine

The 2nd CUHK International Symposium on Stem Cell Biology and Regenerative Medicine has been successfully held at The Chinese University of Hong Kong Shenzhen Research Institute and Prince of Wales Hospital on 19-20 November 2012. The symposium was co-sponsored by The Stem Cells and Regeneration Center, CUHK, Stem Cells and Regeneration Theme, School of Biomedical Sciences, CUHK; Department of Orthopaedics and Traumatology, CUHK; The Hong Kong Jockey Club Sports Medicine and Health Sciences Centre, CUHK; Key Laboratory for Regenerative Medicine (Jinan University-CUHK), Ministry of Education, PR China; Chinese University of Hong Kong Shenzhen Research Institute and School of Medicine, Shenzhen University.

The first day of the meeting was held in the newly established CUHK Shenzhen Research Institute, in Shenzhen, and there were over 150 attendants; Prof. Liang Bin, deputy director of CUHKSZ RI; Prof. Chan Wai-Yee, Director of School of Biomedical Sciences; Prof. Zhang Jian, Associated Dean, School of Medicine, Shenzhen University, and Prof. Cai Dong-Qing, Director of Key Laboratory for Regenerative Medicine (Jinan University-CUHK), Ministry of Education, addressed the audiences at the opening ceremony. There were more than 20 invited speakers giving talks at the symposium.

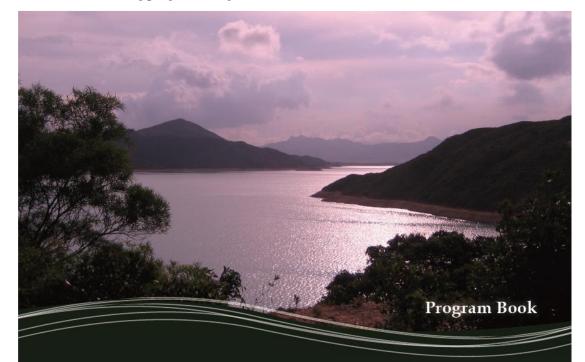




The 2<sup>nd</sup> day of the symposium continued in Hong Kong at Prince of Wales Hospital. Over 200 people attended with more than 30 invited speakers from USA, UK, Australia, Sweden, Denmark, Singapore, mainland China and CUHK (see attached meeting program). The Vice Chancellor, Prof. Joseph Sung, Dean of Faculty of Medicine, Prof. Tai-Fai Fok, and Director of The Hong Kong Jockey Club Sports Medicine and Health Sciences Centre, Prof. Kai-Ming Chan addressed the audience at the opening ceremony about the importance and new developments of stem cells research and regenerative medicine at CUHK. The symposium was divided into 4 main parts: biology of tissue regeneration; topics of regenerative medicine; technological advancements and translational medicine related topics. Experts shared their latest discoveries, novel research ideas and techniques on various fronts of regenerative medicine. Two best student awards were given to Ms. Liu Yang and Ms. Zhang Ting, both from Department of Orthopaedics and Traumatology, CUHK.

The symposium was the first to have meetings in Shenzhen and Shatin Campus in 2 days, and received overwhelming good feedbacks from many participants. Thishe symposium has become an icon for stem cell biology and regenerative medicine in Hong Kong. The 3rd CUHK International Symposium on Stem Cell Biology and Regenerative Medicine will be held on 11-12 November 2013, in Hong Kong.

Prof. Li Gang Department of Orthopaedics and Traumatology / School of Biomedical Sciences, CUHK Attachments: Meeting program at a glance



## 2nd CUHK International Symposium on Stem Cell Biology and Regenerative Medicine

19-20 November 2012 Chinese University of Hong Kong Shenzhen Research Institute, China &

### Prince of Wales Hosptial, Hong Kong

Website: http://scrm.ort.cuhk.edu.hk/

Organizers:

Stem Cell and Regeneration Theme, School of Biomedical Sciences, The Chinese University of Hong Kong Department of Orthopaedics and Traumatology, The Chinese University of Hong Kong The Hong Kong Jockey Club Sports Medicine and Health Sciences Centre Key Laboratory for Regenerative Medicine (Ji Nan University-The Chinese University of Hong Kong), Ministry of Education, China Chinese University of Hong Kong Shenzhen Research Institute School of Medicine, Shenzhen University





## Day 1 November 19, 2012 (Monday)

	Time	Key Events	Speaker	
Opening Ceremony Moderators: Prof. Gang LI <i>(HK)</i>	08:30-09:00	Opening Remarks	Mr. Bin LIANG Prof. Wai-Yee CHAN Prof. Wen-Qi JIANG	
	09:00-09:15	Group Photo		
Section 1: Biology of Tissue Regeneration Moderators: Prof. Dong-Qing CAI (CHINA) Prof. Chao WAN (HK)	09:15-09:30	Circulating stem cells and its clinical implications.	Prof. Gang LI The Chinese University of Hong Kong, HK	
	09:30-09:45	New development in iPS technology.	Prof. Bo FENG The Chinese University of Hong Kong, HK	
	09:45-10:00	The comprehensive roles of strontium in bone cells: a systems biology perspective	Prof. Guang-Qian ZHOU Shenzhen Univerisity, CHINA	
	10:00-10:15	Role of insulin/insulin receptor signaling in chondrogenesis.	Prof. Chao WAN The Chinese University of Hong Kong, HK	
	10:15-10:30	Tangential migration and proliferation of intermediate progenitor of GABAergic neurons in the mouse neocortex.	Prof. Sheng-Xi WU The Fourth Military Medical University, Xi'an, CHINA	
	10:30-10:45	Panel Discussion & Questions and Answer Session		
	10:45-11:00	Coffee Break		
Section 2: Topics of Regenerative Medicine Moderators: Prof. Gang LI ( <i>HK</i> ) Prof. Guang-Qian ZHOU ( <i>CHINA</i> )	11:00-11:30	<u>Keynote speech:</u> Cell-Based Regenerative Therapies: Potential and Challenges. 细胞基礎再生療法:潛能和挑戰	Prof. Rocky S. TUAN University of Pittsburg, USA	
	11:30-11:50	Biomaterials for regenerative medicine	Prof. Peter X. MA University of Michigan, USA	
	11:50-12:10	Stem cells based therapy for bone repair: from bench to bedside.	Prof. Ting-Ting TANG Shanghai Jiantong University, CHINA	
	12:10-12:30	In vivo mesenchymal stem cell proliferation regulated by mechanotransduction	Prof. Yi-Xian QIN State University of New York, Stony Brook, USA	
	12:30-12:40	Panel Discussion & Questions and Answer Session		
	12:40-14:00	Lunch Break & Touring the CUHKRI Buildings		
Section 3: Technological Advancements Moderators: Prof. Ling QIN ( <i>HK</i> ) Prof. Edward GUO ( <i>USA</i> )	14:00-14:15	Hedgehog signaling, is it good or bad for bone?	Prof. Kingston King-Lun MAK The Chinese University of Hong Kong, HK	
	14:15-14:30	Osteoblasts Control Lineage Commitment Of Mesenchymal Progenitor Cells Through Wnt Signaling	Prof. Hong ZHOU University of Sydney, AUSTRALIA	
	14:30-14:45	FoxO3a pathway in ischemic cardiac microvascular endothelial cells.	Prof. Xu-Feng QI Jinan University, CHINA	
	14:45-15:00	Mechanobiology and Bone Adaptation	Prof. Edward GUO Columbia University, USA	
	15:00-15:15	Central Tolerance and its Involvement in Regeneration	Prof. Jun-Wen QIN Jinan University, CHINA	
	15:15-15:30	Bone regeneration mechanism of advanced biomaterials for hard tissue repair.	Prof. Xue-Nong ZOU Sun Yat-Sen University, CHINA	
	15:30-15:45	Panel Discussion & Conclusion of the meeting		
	15:45-16:00	Board Crossing border coach to Hong Kong	I Crossing border coach to Hong Kong	
	18:00	Arrive Hong Kong, stay in Regal Riverside Hotel for invited speakers and guests		
	19:30 Welcome dinner at Regal Riverside Hotel for invited speakers and guests			



# Day 2 November 20, 2012 (Tueseday)

	Time	Key Events	Speaker	
	08:30-09:00	Opening Ceremony	Prof. Joseph JY SUNG Prof. Tai-Fai FOK Prof. Kai-Ming CHAN	
	09:00-09:15	Group Photo		
Section 1: Biology of Tissue Regeneration Moderators: Prof. Gang LI (HK) Prof. Edward GUO (USA)	09:15-09:40	Size matters – Nanotopographical and biomaterial control of skeletal stem cell fate and function	Prof. Richard OREFFO University of Southampton, UK	
	09:40-10:05	Systemic Trafficking of Macrophages and Osteoprogenitor Cells	Prof. Stuart B GOODMAN Stanford University, USA	
	10:05-10:30	Modified biomaterial interfaces and stem cell responses	Prof. Wilson WANG National University of Singapore, Singapore	
	10:30-10:45	Panel Discussion & Questions and Answer Session		
	10:45-11:00	Coffee Break		
Section 2: Tendon Regeneration Moderators: Prof.Christer ROLF (Sweden) Prof. Kai-Ming CHAN (HK)	11:00-11:30	Keynote Speech: Are we trying to treat a failed healing response in Tendinopathy?	Prof. Christer ROLF Karolinska University Hospital, Stockholm, Sweden	
	11:30-11:45	Tissue Engineering for Flexor Tendon Repair.	Prof. Chun-Feng ZHAO Mayo Clinic, USA	
	11:45-12:00	Tendon stem cells in tendon regeneration	Prof. Pauline Po-Yee LUI The Chinese University of Hong Kong, HK	
	12:00-12:15	The mechanical signal regulation in tendon stem cells differentiation	Prof. Xiao-Ling ZHANG Shanghai Jiao Tong University, CHINA	
	12:15-12:30	Panel Discussion & Questions and Answer Session		
	12:30-13:15	Lunch Break		
Lunch Seminar	13:15-14:00	Development of nanofiber production equipment Present Nanofiber application	Dr. Chikashi NAITO MECC Co., Ltd, JAPAN	
Section 3: Technological Advancements of Stem Cell Biology and Applications Moderators: Prof. Kenneth LEE ( <i>HR</i> ) Prof. Ting-Ting TANG ( <i>CHINA</i> )	14:00-14:15	sRNA Induces the Large-scale Trans-determination of Mesenchymal Stem Cells into Hematopoietic Stem Cells in Human	Prof. James Q. YIN Chinese Academy of Sciences, CHINA	
	14:15-14:30	An underlying mechanism for the self-renewal of Smad3-/- ES cells	Prof. Ping YUAN The Chinese University of Hong Kong, HK	
	14:30-14:45	Reprogramming MSCs through in vitro differentiation and dedifferentiation for enhancing therapeutic potential in vivo	Prof. Xiao-Hua JIANG The Chinese University of Hong Kong, HK	
	14:45-15:00	Readying adult stem cells towards the clinic: Incubation within cellular assemblies and sugar substrates	Prof. David W. GREEN The University of Hong Kong, HK	
	15:00-15:15	Cardiac Telocytes in Regenration of Infarcted Myocardium	Prof. Dong-Qing CAI Jinan University, CHINA	
	15:15-15:30	Extracellular Matrix as Stem Cell Niche: Implications in Osteoarthritis	Prof. Qian CHEN Brown University, USA	
	15:30-15:50	Bio-inspired approaches for bone tissue engineering	Prof. Peter Yun-Zhi YANG Standford University, USA	
	15:50-16:00	Panel Discussion & Questions and Answer Session		
	16:00-16:15	Coffee Break		
Section 4: Translational Medicine Related Topics Moderators: Prof. Ling QIN ( <i>HK</i> ) Prof. Yi-Xian QIN ( <i>USA</i> )	16:15-16:45	<u>Keynote Speech:</u> Experimental paradigms of tissue engineering and regeneration 網織工程和再生醫療的實驗範式	Prof. Rocky S. TUAN University of Pittsburg, USA	
	16:45-17:00	Cell therapy for tendinopathy management	Prof. Ming-Hao ZHENG Western Australia University, Australia	
	17:00-17:15	R&D and Validation of a Porous Scaffold Composite Material incorporating Osteopromotive Compounds for Bone Defect Repair in Osteonecrosis 骨坏死性骨缺损修复生物活性材料的研发与验证	Prof. Ling QIN The Chinese University of Hong Kong, HK	
	17:15-17:30	Skeletal Progenitors-specific ablation of Cbfβ displays a novel function of Cbfβ in chondrocyte proliferation and Cartilage Repair	Prof. Yi-Ping LI University of Alabama at Birmingham, USA	
	17:30-17:45	Development of an Human Fetal Mesenchymal Stem Cell Line Overexpressing Thymidine Kinase (TK) Gene for Anti-tumor Therapy	Dr. Wayne LEE and Prof. Gang LI The Chinese University of Hong Kong, HK	
	17:45-18:00	Panel Discussion & Questions and Answer Session		
Section 5: Student Presentation	18:00-18:40	Student Presentation & Award Announcement	Prof. Gang LI	
	18:40-18:50	Conclusion Remarks	Prof. Kai-Ming CHAN Prof. Gang LI	