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Welcome Message

The series of International Symposium on Surface and Interface of Biomaterials was conceived in 2005 and the first conference in this series (SIB2007) was held in Chengdu, China, in October 2007. Following the great success of SIB2007, the 2nd International Symposium on Surface and Interface of Biomaterials (ISSIB-II) now takes place in Hong Kong on January 4-6, 2010.

Surfaces and interfaces in biomaterials are highly important issues in the biomaterials and tissue engineering field and form a key scientific base for the rapid development in this field. They are at the forefront of biomaterials R & D. ISSIB-II aims to provide an international forum for scientists, engineers, clinicians and medical device manufacturers to present and discuss the latest scientific findings and technological developments in areas concerning surface and interface of biomaterials. The synthesis, characterization, testing, modeling, assessment, application, and other pertinent aspects of the surface and interface of biomaterials are covered by this symposium. ISSIB-II promotes multidisciplinary research and international and inter-institutional collaborations. Through the sharing of new ideas and concepts, the exchange of information and the use of emerging technologies, important issues regarding biomaterials surface and interface will be tackled, advancing the science and engineering of biomaterials.

I am glad that ISSIB-II has been supported by numerous researchers from many countries. The symposium received nearly 200 abstracts from countries in Asia, Europe, North America and Australasia and over 160 papers have been selected for presentation at ISSIB-II. Eminent scientists from leading universities in the world come to ISSIB-II to give their invited lectures. I am confident that delegates will find ISSIB-II a stimulating forum for research in biomaterials and tissue engineering and an excellent venue for networking with fellow researchers.

I am grateful to Professor Nan Huang and other members of the Organising Committee who helped to organize ISSIB-II. I must thank the ISSIB-II Secretariat and my colleagues in the department for their strong support. ISSIB-II is the result of hard work of many individuals who have been volunteering their time and expertise.

On behalf of the Organizing Committee, I sincerely thank the Croucher Foundation, Hong Kong, and Department of Mechanical Engineering, The University of Hong Kong, for generously providing financial sponsorship for ISSIB-II.

I wish that all delegates will enjoy participating in ISSIB-II and also enjoy the multifaceted life of an international city during their stay in Hong Kong.

Min Wang, PhD
Professor, Department of Mechanical Engineering, The University of Hong Kong
Chairman, The 2nd International Symposium on Surface and Interface of Biomaterials

Symposium Organization

Symposium Chair: Min Wang, *Hong Kong*

Symposium Co-Chair: Nan Huang, *China*

Organizing Committee:

- Nan Huang, *Southwest Jiao Tong University, China*
- Yongxiang Leng, *Southwest Jiao Tong University, China*
- Yuan Lin, *University of Hong Kong, Hong Kong*
- Min Wang, *University of Hong Kong, Hong Kong*
- Mo Yang, *Hong Kong Polytechnic University, Hong Kong*

International Scientific Committee:

- Dong June Ahn, *Korea University, Korea*
- Serena M. Best, *University of Cambridge, UK*
- Chong-Su Cho, *Seoul National University, Korea*
- Mohan Edirisinghe, *University College London, UK*
- Zhongwei Gu, *Sichuan University, China*
- Nan Huang, *Southwest Jiao Tong University, China*
- Kunio Ishikawa, *Kyushu University, Japan*
- Michael K.-A. Khor, *Nanyang Technological University, Singapore*
- Michele Marcolongo, *Drexel University, USA*
- Bruce K. Milthorpe, *University of Technology Sydney, Australia*
- Roger J. Narayan, *University of North Carolina, USA*
- Chikara Ohtsuki, *Nagoya University, Japan*
- Andrew J. Ruys, *University of Sydney, Australia*
- Swee-Hin Teoh, *National University of Singapore, Singapore*
- Min Wang, *University of Hong Kong, Hong Kong*
- Tingfei Xi, *Peking University, China*

International Committee:

- Nan Huang, *China* (Chair)
- Kazuhiko Ishihara, *Japan* (Co-Chair)
- Hai Bang Lee, *Korea* (Co-Chair)
- Michael Grunze, *Germany*
- Yang Leng, *China*
- Pankaj Vadgama, *UK*
- Erwin A. Vogler, *USA*
- Laura Poole-Warren, *Australia*

Symposium Secretariat:

Secretaries:

- Mei Mei Lam
- Annie Pang
- Ho-Wang Tong

Webmaster:

- Edwin C.K. Chan

Assistants:

- Bin Duan
- Tao Sun

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Website: www.hku.hk/issib2010

Symposium Information

1. Symposium Date and Venue

   Date: January 4 – 6, 2010 (Monday – Wednesday)
   Venue: University Conference Centre (Graduate House)
   The University of Hong Kong, Pokfulam Road, Hong Kong

2. Official Language

   The official language of ISSIB-II is English. No translation service will be available.

3. Symposium Registration

   The registration desk is located in the University Conference Centre and is open on:
   January 3, 2010 (Sunday) 14:00 – 18:00
   January 4, 2010 (Monday) 08:00 – 09:00
   January 5, 2010 (Tuesday) 08:00 – 09:00
   Participants of ISSIB-II are strongly advised to come to the University Conference Centre to do their registration on January 3, 2010.

   Registered ISSIB-II delegates are entitled to:
   - Attendance of all scientific sessions on January 4 – 6, 2010
   - Welcome Reception on January 3, 2010
   - Opening Ceremony on January 3, 2010
   - Symposium Banquet on January 5, 2010 (except for students: their registration fee does not include symposium banquet)
   - Coffee/tea and refreshments during morning and afternoon breaks on January 4 – 6, 2010
   - Lunches on January 4 – 6, 2010
   - Delegate's kit and all official publications of ISSIB-II

4. Name Badges

   ISSIB-II delegates need to wear name badges at all times for all sessions and social functions. Entry may be denied for people not wearing the badges.

5. Preview of the Presentation File and Presentation Guidelines

   All presenters are required to view their presentation files before coming to ISSIB-II. An on-site preview room may be set up for delegates.

   Instruction for presenters can be found in the "Presentation Guidelines" section of this programme book.

6. Student Paper Awards

   Best Student Papers will be selected by the Award Selection Committee, whose membership consists of some Invited Speakers of ISSIB-II. The award criteria are based on the scientific/technical quality of the submitted paper, presentation and performance in answering questions. Each award consists of an award certificate and a cheque (in US dollars). All delegates will be informed of awardees' names and affiliations after ISSIB-II.

7. Certificate of Attendance

   Upon request, a Certificate of Attendance will be available to registered participants.

8. Welcome Reception

   Date: January 3, 2010 (Sunday)
   Time: 18:30 – 19:30
   Venue: Convocation Room, The University of Hong Kong (Room 218, Main Building)

9. Lunch, Coffee/Tea and Refreshments

   Lunch will be served to all registered delegates in the Joseph's restaurant located in the University Conference Centre. The lunch time varies slightly on January 4 – 6, 2010.

   Coffee/tea and refreshments will be served in the foyer of the University Conference Centre during the coffee/tea breaks on January 4 – 6, 2010.

10. Banquet

    Date: January 5, 2010 (Tuesday)
    Time: 19:00 – 22:30
    Venue: Jumbo Kingdom
    Shum Wan Pier Drive, Wong Chuk Hang, Aberdeen, Hong Kong
    (Tel: 2553-9111; http://www.jumbokingdom.com)

    Bus transport will be provided on January 5, 2010, to take delegates from the symposium venue to Jumbo Kingdom:
    Gathering Point: Podium, 4th Floor, Haking Wong Building, HKU
    Departure Time: 18:30
    Buses will depart at 18:30 sharp. Delegates who have missed the bus service need to go to the banquet themselves at their own expense.

    After the banquet (at around 21:00), the buses will take delegates who attend the banquet to the Peak (http://www.discoverhongkong.com/eng/attractions/hk-peak.html) for a visit and then to places near HKU for delegates to go to their hotels.

11. Useful Telephone Numbers

Police/Emergency	999
Symposium Secretariat (during ISSIB-II period)	2859 2635/2618
University Conference Centre, HKU	2249 1800

12. Disclaimer

    Whilst every attempt has been and will be made to ensure all aspects of the symposium mentioned in this booklet and other associated materials will take place as scheduled, the Organising Committee reserves the right to make last minute changes should the need arise.

Presentation Guidelines

Duration of Presentation

Type / Duration	Presentation	Discussion	Total
Plenary Lecture	40 minutes	5 minutes	45 minutes
Keynote Lecture	26 minutes	4 minutes	30 minutes
Oral Presentation	13 minutes	2 minutes	15 minutes

Oral Presentation

Powerpoint or Acrobat PDF slides for presentation on a LCD video projector are recommended.

Oral presentation rooms are equipped with the following items:

- A PC running Windows XP operating system, with MS Office (Powerpoint 2007 version) and Acrobat Reader (No Macintosh computer will be provided.)
- An LCD projector
- A microphone

We recommend that the presenter bring his/her presentation file in a format compatible with one of the above applications and stored in the USB drive (flash disk) or a CD-ROM. Alternatively, the presenter can use his/her own notebook computer. If the presenter chooses to use his/her own notebook computer, we recommend that the presenter bring a backup copy of his/her presentation file in a CD-ROM or a USB drive.

All presenters can upload their presentation files into the computer in their assigned presentation room on the morning of their presentation from 08:30 a.m. onwards, or during the coffee/tea breaks. A session helper will be in the room to help the presenters.

Note:

- AC voltage is 220 V in Hong Kong.
- The connector from the LCD projector to the notebook computer is limited to a D-sub 15 pin male connection.

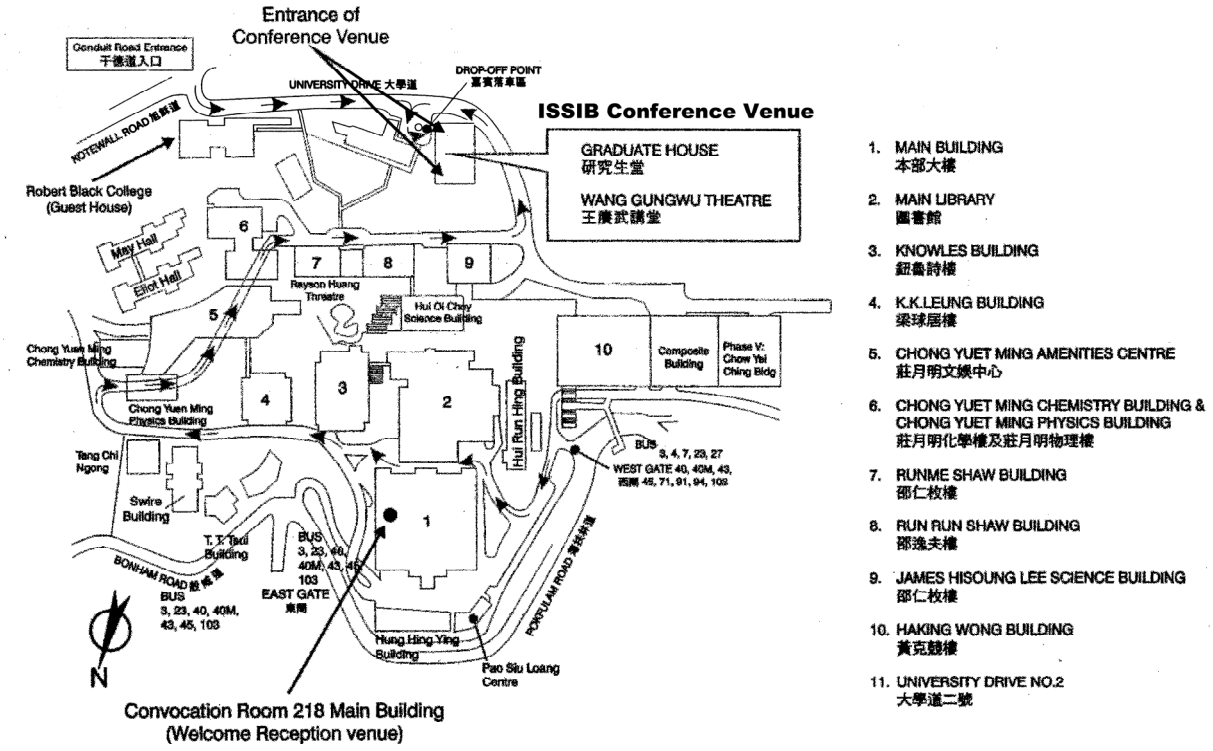
Instruction to Presenters

Each presenter is reminded to:

(1) arrive at the assigned presentation room 15 minutes before the session begins;
(2) report his/her presence to the Session Chairs 10 minutes before the session begins;
(3) provide his/her USB drive or CD-ROM to the session helper 10 minutes before the session begins;
(4) keep the allocated presentation time.

Location Map and Transport Information

Conference Venue Map:



Transport Information (To get to HKU):

1. From the Hong Kong International Airport
   By Airport Express (train service):
   - A single journey costs HK$100 and takes about 24 minutes to reach Central;
   - When arriving at the Hong Kong Station (in Central), transfer to bus No. 4, 7, 71 or 91.

   By Airport Bus A11 or A12:
   - When arriving in Central, take bus No. 3B, 40M or 103.

   By taxi:
   - Costs about HK$400 and takes about 45 minutes.
2. From Lo Wu
   - When arriving at the Hung Hom Station (in Kowloon), transfer to bus No. 103.
3. From Central
   - Take bus No. 3B, 40M or 103.
4. From Admiralty
   - Take bus No. 23, 40 or 40M.
5. From Tsim Sha Tsui
   By train (MTR)
   - When arriving at the Admiralty Station, transfer to bus No. 23, 40 or 40M; or
   - When arriving at the Central Station, transfer to bus No. 3B, 40M or 103.

Programme at a Glance

Jan. 3, 2010 (Sunday)	Jan. 4, 2010 (Monday)		Jan. 5, 2010 (Tuesday)		Jan. 6, 2010 (Wednesday)	
	0800-0900	ISSIB-II registration	0800-0900	ISSIB-II registration		
	0900-0930	Opening ceremony	0900-0945	Plenary session	0900-1045	Parallel sessions: C1, B2, I2.
	0930-1015	Plenary session	0950-1105	Parallel sessions: A1, G1, M1.		
	1015-1100	Group photo time				
	1100-1120	Coffee break	1105-1125	Coffee break	1045-1105	Coffee break
	1120-1235	Parallel sessions: N1, L1, K1.	1125-1240	Parallel sessions: J1, A2, L4.	1105-1235	Parallel sessions: O1, F2, A3.
	1235-1400	Lunch	1240-1400	Lunch	1235-1400	Lunch
ISSIB-II registration 1400-1800	1400-1600	Parallel sessions: B1, L2, N2.	1400-1600	Parallel sessions: D1, E1, J2.		
	1600-1620	Tea break	1600-1620	Tea break		
	1620-1750	Parallel sessions: H1, K2, L3.	1620-1750	Parallel sessions: F1, I1, M2.		
			1830-1900	Bus transport to banquet		
Welcome reception 1830-1930			1900-2230	Banquet & Visit to the Peak		

Themes of ISSIB-II:

A:	Biomedical Polymers and their Surface Modification	I:	Tissue Engineering Scaffolds and their Applications
B:	Bioceramics	J:	Electrospinning of Fibrous Structures for Medical Applications
C:	Metallic Biomaterials	K:	Surface Patterning and Micro- and Nano-fabrication
D:	Biomedical Composites	L:	Surface Modification of Ti and Ti-based Alloys
E:	Dental Materials	M:	Materials and their Surface Modification for Blood-contacting Medical Devices
F:	Nanoparticles and Quantum Dots in Medicine		
G:	Biosensors	N:	Biomolecules and Cells at the Surface or Interface
H:	Materials and Systems for the Delivery of Therapeutic Agents	O:	Analysis of Biomaterial Surface and Interface

List of Plenary and Keynote Speakers

Plenary Speakers:

- "From Concept to Patient - Scaffolds for Tissue Regeneration"
  William Bonfield, *University of Cambridge, UK*
- "Biomineralization and Bio-inspired Materials: Designing Organic-Inorganic Interface"
  Joanna Aizenberg, *Harvard University, USA*

Keynote Speakers:

- "Hydrothermal Surface Modification with Calcium"
  Kunio Ishikawa, Kyushu University, Japan
- "Rapid Prototyping of Microneedles for Transdermal Drug Delivery"
  Roger Narayan, University of North Carolina, USA
- "siRNA Delivery Using Degradable Poly(amino ester)s *In Vitro* and *In Vivo*"
  Chong-Su Cho, Seoul National University, Korea
- "Corrosion Behavior of Copper and Protein Adsorption in Simulated Uterine Solution in the Presence of Proteins"
  Tingfei Xi, Peking University, China
- "Protein and Cell Interactions with Biomaterial Surfaces"
  Bruce Milthorpe, University of Technology Sydney, Australia
- "Conjugated Nanosome Sensors"
  Dong June Ahn, Korea University, Korea
- "Evaluation of Interfaces in Bioactive Materials and Biology for the Development of Improved Medical Implants"
  Serena Best, University of Cambridge, UK
- "Novel Microbubble and Microcapsule Preparation Methods for Imaging and Drug Delivery"
  Mohan Edirisinghe, University College London, UK
- "Surface Interactions of Model Systems of Blastocyst Implantation in the Uterus"
  Michele Marcolongo, Drexel University, USA
- "Surface Modification of Biomaterials and Tissue Engineering Scaffolds Using the Composite Approach"
  Min Wang, The University of Hong Kong, Hong Kong
- "Hybrid Surface Modification of Materials for Biomedical Applications"
  Nan Huang, Southwest Jiaotong University, China
- "Cellular Response to Titanium or DLC-Coated Micro-Patterned Surfaces"
  Andrew Ruys, University of Sydney, Australia
- "Well-functionalized Surface Prepared by Layer-by-Layer Process with Biocompatible Phospholipid Polymers"
  Kazuhiko Ishihara, The University of Tokyo, Japan
- "Fabrication of Porous Protein Membranes Using Microfluidics"
  Pankaj Vadgama, Queen Mary University of London, UK
- "Mechanical Properties of Interfaces between Sr-HA Bioactive Bone Cement and Bone by Nanoindentation: An *In Vivo* Study"
  William Lu, The University of Hong Kong, Hong Kong

Scientific Programme

Monday, January 4, 2010

Opening Ceremony
(Venue: Wang Gungwu Theatre, University Conference Centre)

09:00 – 09:30 Opening Ceremony

Plenary Session
(Venue: Wang Gungwu Theatre, University Conference Centre)

Session Chairman: *Min Wang (Hong Kong)*

09:30 – 10:15 Re_P_01 From Concept to Patient - Scaffolds for Tissue Regeneration
William Bonfield
University of Cambridge, UK

ISSIB-II Symposium Photo Time (For taking group photos of all ISSIB-II participants)
(Time: 10:15 – 11:00. Venue: Sun Yat-Sen Steps)

Coffee Break
(Time: 11:00 – 11:20. Venue: Foyer of the University Conference Centre)

Session MON1: Biomolecules and Cells at the Surface or Interface (N1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Ming-Hua Ho (Taiwan), Bruce Milthorpe (Australia)*

11:20 – 11:50 Re_I_06 (Keynote Lecture) Protein and Cell Interactions with Biomaterial Surfaces
Bruce Milthorpe, Megan Lord
University of Technology Sydney, Australia

11:50 – 12:05 Re_057 Effect of Surface Morphology on Protein Adsorption onto Alginate-Chitosan-Alginate (ACA) Microcapsules
Hongguo Xie, Jiani Zheng, Xiaoxia Li, Weiyang Xie, Feng Wang, Xiaojun Ma
Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China

12:05 – 12:20 Re_154 The Analysis of Biocompatibility and Osteoinduction Effects for Biomimetic Substrates
Yuan-Ming Su, Ming-Hua Ho
National Taiwan University of Science and Technology, Taiwan

12:20 – 12:35 Re_181 Fibronectin Adsorption Behaviour on Metal Surfaces Investigated by Quartz Crystal Microbalance with Dissipation (QCM-D) and Immunoassay
Jun Liang, Ping Yang, Guicai Li, Ansha Zhao, Yuzhen Liao, Nan Huang
Southwest Jiaotong University, China

Session MON1: Surface Modification of Ti and Ti-based Alloys (L1)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Min Qi (China), Min Wang (Hong Kong)*

11:20 – 11:50	Re_I_12 (Keynote Lecture)	Surface Modification of Biomaterials and Tissue Engineering Scaffolds Using the Composite Approach *Min Wang* *The University of Hong Kong, Hong Kong*
11:50 – 12:05	Re_012	Fabrication of (Ti-O-N)/Ti Composite Coating on NiTi Shape Memory Alloy via PIIID and its Evaluation *Tao Sun, Lang-Ping Wang, Min Wang* *The University of Hong Kong, Hong Kong*
12:05 – 12:20	Re_007	Adhesion Enhancement Between FHA and Ti Substrate by TiO_2 Buffer Layer through Micro Arc Oxidation Method *Min Qi, Zhicong Luo, Dayi Yang* *Dalian University of Technology, China*
12:20 – 12:35	Re_036	Characterization and Formation Mechanism of Nano-structured Hydroxyapatite Coatings Deposited by Liquid Precursor Plasma Spraying *Yi Huang, Lei Song, Xiaoguang Liu, Yanfeng Xiao, Tao Huang, Zhongwei Gu, Fang Wu* *Sichuan University, China*

Session MON1: Surface Patterning and Micro- and Nano-fabrication (K1)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Jiunn-Der Liao (Taiwan), Roger Narayan (USA)*

11:20 – 11:50	Re_I_02 (Keynote Lecture)	Rapid Prototyping of Microneedles for Transdermal Drug Delivery *R.J. Narayan, S.D. Gittard, A. Doraiswamy, A. Ovsianikov, B.N. Chichkov* *University of North Carolina, USA*
11:50 – 12:05	Re_134	Use of Photopatterned Polymeric Microparticles to Create Shape-coded Multiphenotype Cell Microarray *Seung Hee Nam, Kyung Jin Son, Won-Gun Koh* *Yonsei University, Korea*
12:05 – 12:20	Re_067	Enhanced Neuron Cell Adhesion and Elongation on a Topographically and Chemically Modified Poly-L-lactic Acid Film *Chih-Kai Yao, Wei-Chin Huang, Jiunn-Der Liao, Chih-Ling Huang, Chou-Ching K. Lin, Ming-Shaung Ju* *National Cheng Kung University, Taiwan*
12:20 – 12:35	Re_189	Using Electrohydrodynamic Forces to Pattern Polymer Films for Biomaterial Applications *Lesley-Anne Turner, Ian Kinloch, Ann Canfield, Ernie Hill, Sandra Downes* *The University of Manchester, UK*

Lunch (Time: 12:35 – 14:00)

Session MON2: Bioceramics (B1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Serena Best (UK), Giichiro Kawachi (Japan)*

14:00 – 14:30	Re_I_08 (Keynote Lecture)	Evaluation of Interfaces in Bioactive Materials and Biology for the Development of Improved Medical Implants *Serena Best* *University of Cambridge, UK*
14:30 – 14:45	Re_040	Effect of Clodronate Modifying Hydroxyapatite on Multi-directional Differentiation of Mesenchymal Stem Cells *X. Liu, J. Hu, X.H. Zhang, G.Z. Yin, C.Y. Bao, C.L. Zhang, E. Luo* *Sichuan University, China*
14:45 – 15:00	Re_080	Improving Bioactivity of Porous β-TCP Ceramics by Forming Bone-like Apatite on the Surfaces of Pore Walls *Qingfeng Zan, Limin Dong, Chen Wang, Jiemo Tian* *Tsinghua University, China*
15:00 – 15:15	Re_082	Effects of Heat Treatment of Needle-like Hydroxyapatite on Protein Adsorption *Giichiro Kawachi, Tomoko Watanabe, Chikara Ohtsuki* *Kyushu University, Japan*
15:15 – 15:30	Re_043	Histological Study of Osteoinductive Tricalcium Silicate: Preliminary Results in a Rabbit Model *Qing Lin, Yanbao Li, Yixin Chen, Xianghui Lan, Chunhua Lu, Zhongzi Xu* *Nanjing University of Technology, China*
15:30 – 15:45	Re_148	Surface Modification of a Carbon Foam: A Preliminary Study *Hairong Liu, Leilei Xia, Aifang Du, Yao Dai, Zheng Zhou* *University of Hunan, China*
15:45 – 16:00	Re_160	Thermal Stability and Sintering of Hydroxyapatite Nanopowder Prepared from Natural Bovine Bone *A. Raksudjarit, G. Rujijanagul* *Chiang Mai Rajabhat University, Thailand*

Session MON2: Surface Modification of Ti and Ti-based Alloys (L2)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Andrew Ruys (Australia), Wenjian Weng (China)*

14:00 – 14:30	Re_I_14 (Keynote Lecture)	Cellular Response to Titanium or DLC-Coated Micro-Patterned Surfaces *S.F. Magdon-Ismail, A.J. Ruys, P.J. Martin, A. Bendavid* *University of Sydney, Australia*
14:30 – 14:45	Re_119	Microstructure and Antibacterial Properties of Ag Plasma Immersion Ion Implanted Titanium *Huiliang Cao, Xuanyong Liu* *Shanghai Institute of Ceramics, Chinese Academy of Sciences, China*

14:45 – 15:00	Re_055	Effect of Precursors and Spray Parameters on the Formation and Crystallization Properties of Bioactive Glass-Ceramics Coatings Obtained by Liquid Precursor Plasma Spraying *Yanfeng Xiao, Lei Song, X. Liu, Yi Huang, Tao Huang, Fang Wu* *Sichuan University, China*
15:00 – 15:15	Re_127	Electrolytic Deposition of Simulated Extracellular Matrix Layer on Titanium Implant *Shundong Miao, Kui Cheng, Wenjian Weng* *Zhejiang University, China*
15:15 – 15:30	Re_058	Characterization and *In Vitro* Antibacterial Activity Evaluation of Electrochemically Deposited Fluoridated Calcium Phosphate *Xiang Ge, Fuzeng Ren, Yang Leng* *The Hong Kong University of Science and Technology, Hong Kong*
15:30 – 15:45	Re_029	Bioactivities of Ti Surface Ablated with Femtosecond Laser through SBF *Chunyong Liang, Hongshui Wang, Yang Yang, Jianjun Yang, Changyi Li* *Hebei University of Technology, China*
15:45 – 16:00	Re_165	Surface Modification of a Superelastic NiTi Wire Used for Woven Stents *T. Fu, C.S. Wen, J. Lu, K.W. Xu* *Xi'an Jiaotong University, China*

Session MON2: Biomolecules and Cells at the Surface or Interface (N2)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Megan Lord (Australia), Mo Yang (Hong Kong)*

14:00 – 14:15	Re_027	The Response of Platelets and Mast Cells to Chitosan: A Role in Wound Healing *Megan S. Lord, MoonSun Jung, Bill Cheng, Rita So, Simon McCarthy, John M. Whitelock* *The University of New South Wales, Australia*
14:15 – 14:30	Re_147	Regulation of Protein Adsorption and Cell Adhesion on Glass Surfaces Grafted with Poly(*N*–vinylpyrrolidone–*b*–polystyrene) Block Copolymers *Xiaoli Liu, Zhaoqiang Wu, Dan Li, Feng Zhou, Hong Chen* *Wuhan University of Technology, China*
14:30 – 14:45	Re_195	Adsorption and Conformational Change of Human Plasma Fibrinogen on Thermally and Chemically Modified Titanium Dioxide Particles *Ansha Zhao, Guicai Li, Jin Wang, Mingquan Wang, Ping Yang, Yongxiang Leng, Nan Huang* *Southwest Jiaotong University, China*
14:45 – 15:00	Re_086	Culturing Rat Mesenchymal Stem Cell on 2D and 3D Poly(ethylene glycol) (PEG) Hydrogel Structure with Various RGD-peptide Concentrations *Zongbin Liu, Mo Yang, Xueshan Qin, Arthur F.T. Mak* *The Hong Kong Polytechnic University, Hong Kong*

15:00 – 15:15 Re_155 Quantified Evaluation of Surface Interforces between Chitosan and Osteoblast-like Cells
Ming-Hua Ho, Sheng-Wen Hsiao, Hsyue-Jen Hsieh
National Taiwan University of Science and Technology, Taiwan

15:15 – 15:30 Re_183 Inhibition of Bacterial Adherence on the Surface of Biliary Stent Material Modified with Chitosan
H.Q. Liu, N. Huang, Y.X. Leng, H.L. Yu, L. Le, K.Z. Li
Southwest Jiaotong University, China

15:30 – 15:45 Re_074 Influences of the Chitosan's Monomer on the Angiogenic Behaviors of VECs *In Vitro*
Y.W. Chen, Q. Xu, G.Q. Shi, C.X. Wan
Sichuan University, China

15:45 – 16:00 Re_076 A Comparison Study on the Influences of the PLA's Monomers on the Angiogenic Behaviors of VECs *In Vitro*
Q. Xu, Y.W. Chen, T. Feng, C.X. Wan, X.L. Luo
Sichuan University, China

Tea Break
(Time: 16:00 – 16:20. Venue: Foyer of the University Conference Centre)

Session MON3: Materials and Systems for the Delivery of Therapeutic Agents (H1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Chong-Su Cho (Korea), Lei Ren (China)*

16:20 – 16:50 Re_I_03 (Keynote Lecture) siRNA Delivery Using Degradable Poly(amino ester)s *In Vitro* and *In Vivo*
Chong-Su Cho
Seoul National University, Korea

16:50 – 17:05 Re_136 pH Amplified Exponential Growth Multilayers for Surface-mediated Peptide Delivery into Cells
Xuefei Wang, Jian Ji
Zhejiang University, China

17:05 – 17:20 Re_094 Novel Gelatin-Siloxane Nanoparticles Decorated by Tat Peptide as Vectors for Gene Therapy
Zu Yong Wang, Pei Yin, Jūn Wang, Cai-ding Wang, Jùn Wang, Lei Ren
Xiamen University, China

17:20 – 17:35 Re_144 Efficient Gene Transfer to Cardiomyocytes Mediated by Surface-Immobilized Polyplex
Yong Sook Kim, Hui-Lian Che, Youngkeun Ahn, Moon Hwa Hong, In-Kyu Park
Chonnam National University Medical School, Korea

17:35 – 17:50 Re_004 Controlled Drug Delivery from Porous PLGA Scaffolds under Dynamic and Static Loading Conditions
Gongwen Tang, Yanfang Yang, Yunhui Zhao, Xiaoyan Yuan, Min Wang, Yubo Fan
Tianjin University, China

Session MON3: Surface Modification of Ti and Ti-based Alloys (L3)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Hanshan Dong (UK), Xiao-Xiang Wang (China)*

16:20 – 16:35 Re_096 Magnesium-Substituted Hydroxyapatite Coatings Deposited on Titanium Surface with an Electrochemical Method
Ming-Jie Jiao, Xiao-Xiang Wang
Zhejiang University, China

16:35 – 16:50 Re_013 A Comparative Study of Apatite Coating and Apatite/Collagen Composite Coating Fabricated on NiTi SMA through Electrochemical Deposition
Tao Sun, Min Wang
The University of Hong Kong, Hong Kong

16:50 – 17:05 Re_015 The Study of Strontium-doped Calcium Polyphosphate as a Kind of Novel Coating Material Deposited on Titanium Substrate by Plasma-Spraying
Qiguang Wang, Wei Song, Qianbin Wang, Xiaohua Zhang, Xixun Yu, Changxiu Wan
Sichuan University, China

17:05 – 17:20 Re_079 Towards Anti-microbial Multifunctional Stainless Steel Surfaces: Active-screen Plasma Surface Alloying with C, N and Ag
Yangchun Dong, Xiaoying Li, Hanshan Dong
The University of Birmingham, UK

17:20 – 17:35 Re_021 Osteoblastic Cell Response on Fluoridated Hydroxyapatite Coatings: Effect of Magnesium Incorporation
Yanli Cai, Jingjing Zhang, Sam Zhang, Venkatraman Subbu S, Xianting Zeng, Debasish Mondal
Nanyang Technological University, Singapore

17:35 – 17:50 Re_128 A Simple Way to Immobilize Collagen on CaP Coated Implants
Changbao Ren, Kui Cheng, Guolin Hong, Haizhen Liu, Guoyun Long, Qiuying Wang
Zhejiang University, China

Session MON3: Surface Patterning and Micro- and Nano-fabrication (K2)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Won-Gun Koh (Korea), Xiong Lu (China)*

16:20 – 16:35 Re_042 Titanium Surface Nanopatterning and Functional Group Synergistic Effects on Biomineralization
Yang Leng, Xiong Lu, Xiang Ge, Nan Huang
The Hong Kong University of Science and Technology, Hong Kong

16:35 – 16:50 Re_053 Synthesis and Characterization of Graft Copolymer Chitosan-g-MPEG and Surface Modification of Alginate/Chitosan/Alginate (ACA) Microcapsules
Jiani Zheng, Hongguo Xie, Weiting Yu, Weiyang Xie, Xiaojun Ma
Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China

16:50 – 17:05 Re_124 Protein Array on the Micropatterned Substrate Using Dendrimer Porphyrin Prepared by Layer-by-Layer (LbL) Method
Kyung Jin Son, Seung Hee Nam, Won-Gun Koh, Woo-Dong Jang
Yonsei University, Korea

17:05 – 17:20 Re_072 Schwann Cells along the SAMs-Modified and Linearly Patterned Nano-Scratched Surface
Wei-Chin Huang, Jiunn-Der Liao, Yi-Chun Kuo, Chou-Ching K. Lin, Ming-Shaung Ju
National Cheng Kung University, Taiwan

17:20 – 17:35 Re_125 The Effect of Ca-P Topography on hFOB Cells Behavior and Initial Adhesion Evaluated by Cytodetacher
Shih-Ping Yang, Tzer-Min Lee
National Cheng Kung University, Taiwan

17:35 – 17:50 Re_188 Thin-walled Nerve Conduit with Micro- to Nano-scaled Surface Patterns for Peripheral Nerve Repair
Mingzhu Sun, Sandra Downes
The University of Manchester, UK

End of Monday for ISSIB-II
(Time: 17:50)

Tuesday, January 5, 2010

Plenary Session
(Venue: Wang Gungwu Theatre, University Conference Centre)

Session Chairman: *Nan Huang (China)*

09:00 – 09:45 Re_P_02 Biomineralization and Bio-inspired Materials: Designing Organic-inorganic Interface
Joanna Aizenberg
Harvard University, USA

Session TUE1: Biomedical Polymers and their Surface Modification (A1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Lisbeth Grøndahl (Australia), Kazuhiko Ishihara (Japan)*

09:50 – 10:20 Re_I_15 (Keynote Lecture) Well-functionalized Surface Prepared by Layer-by-Layer Process with Biocompatible Phospholipid Polymers
Kazuhiko Ishihara, Jieon Choi, Tomohiro Konno, Madoka Takai
The University of Tokyo, Japan

10:20 – 10:35 Re_095 Surface Modification of Polyethersulfone Membrane by Grafting Bovine Serum Albumin
Changsheng Zhao, Baohong Fang, Chong Cheng, Jia Cheng
Sichuan University, China

10:35 – 10:50	Re_048	Novel Phosphate-Grafted ePTFE Copolymers for Optimum *In Vitro* Mineralization *L. Grøndahl, E. Wentrup-Byrne, S. Suzuki, J.J. Suwanasilp* *The University of Queensland, Australia*
10:50 – 11:05	Re_166	Surface Modification of PHBV Films for Improving Cellular Compatibility *Ning-Ping Huang, Lan-Xin Lü, Yan-Yan Wang, Zhong-Dang Xiao* *Southeast University, China*

Session TUE1: Biosensors (G1)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Dong June Ahn (Korea), Shou-Jun Xiao (China)*

09:50 – 10:20	Re_I_07 (Keynote Lecture)	Conjugated Nanosome Sensors *D.J. Ahn, E.J. Kim, D.H. Yang, H. Choi, C. Cui, N. Kim, S.W. Lee, S.H. Park, G.S. Lee* *Korea University, Korea*
10:20 – 10:35	Re_092	Development of Label-free Protease Assays by Using Liquid Crystals *Kun-Lin Yang, Xinyan Bi* *National University of Singapore, Singapore*
10:35 – 10:50	Re_093	Porous Silicon for Biosensing *Huan-Mei Han, Hong Yan, Xiang Liu, Ling Chen, Jia Pei, Jing Wang, Ning Xu, Shou-Jun Xiao* *Nanjing University, China*
10:50 – 11:05	Re_192	A Carbon Nanotube Modified Electrode Improves Sensitivity of Enzyme Biosensor in the Detection of Dichlorvos *Shuping Zhang, Dawang Yu, Yaping Ding, Yi Zheng* *University of Shanghai for Science and Technology, China*

Session TUE1: Materials and their Surface Modification for Blood-contacting Medical Devices (M1)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Junying Chen (China), Nan Huang (China)*

09:50 – 10:20	Re_I_13 (Keynote Lecture)	Hybrid Surface Modification of Materials for Biomedical Applications *N. Huang, J.Y. Chen, Y.X. Leng, P. Yang, J. Wang, H. Sun, G.J. Wan* *Southwest Jiaotong University, China*
10:20 – 10:35	Re_003	Characteristics of ZnO Thin Films in the Blood Compatibility for Biomaterials *Zhanyun Huang, Dihu Chen, Jiaying Ye, Shirong Pan, Min Chen* *Sun Yat-Sen University, China*

10:35 – 10:50	Re_184	Surface Biomimetic Modification of Titanium Oxide Film by Biomolecular Immobilization for Antithrombogenic and Endothelialization *J.Y. Chen, Y.X. Leng, P. Yang, J. Wang, N. Huang* *Southwest Jiaotong University, China*
10:50 – 11:05	Re_070	Anti-thrombogenic Behavior and Electrochemical Investigation of Ti-O Film *B. Lv, G.J. Wan, N. Huang, J.Zh. Zhou, Y.X. Leng, P. Yang, H. Sun, G.S. Jin* *Southwest Jiaotong University, China*

Coffee Break
(Time: 11:05 – 11:25. Venue: Foyer of the University Conference Centre)

Session TUE2: Electrospinning of Fibrous Structures for Medical Applications (J1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Qing Cai (China), Wei Zheng (China)*

11:25 – 11:40	Re_023	Control of Surface Wettability of Polyphosphazene Nanofibers by Using Different Solvents *Y.J. Lin, Q. Cai, L.W. Xue, R.G. Jin* *Beijing University of Chemical Technology, China*
11:40 – 11:55	Re_030	*In Vitro* Hydrolytic Degradation of Nest-like Patterned Electrospun PLGA and PLGA/β-TCP Scaffolds *Xuegang Zhou, Qing Cai, Na Yan, Xuliang Deng, Xiaoping Yang* *Beijing University of Chemical Technology, China*
11:55 – 12:10	Re_017	Polydopamine-mediated Surface Modification of Electrospun Fibrous Meshes: Improvement of Cell Adhesion, Spreading, and Proliferation *Young Min Shin, Heungsoo Shin* *Hanyang University, Korea*
12:10 – 12:25	Re_107	Fabrication and Characterization of Electrospun PLGA/Chitosan Nanofibrous Scaffold *Z.X. Meng, Y.F. Zheng, L. Li, W. Zheng* *Harbin Engineering University, China*
12:25 – 12:40	Re_009	*In Vitro* Biological Assessment of Electrospun Composite Fibers Containing Hydroxyapatite Nanoparticles *Ho-Wang Tong, Min Wang, Zhao-Yang Li, William W. Lu* *The University of Hong Kong, Hong Kong*

Session TUE2: Biomedical Polymers and their Surface Modification (A2)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Pankaj Vadgama (UK), Yudong Zheng (China)*

11:25 – 11:55	Re_I_17 (Keynote Lecture)	Fabrication of Porous Protein Membranes Using Microfluidics *Hong Chang, Rachel Khan, Zimei Rong, Andrei Sapelkin, Pankaj Vadgama* *Queen Mary University of London, UK*

11:55 – 12:10	Re_052	Artificial Cell Membrane Surface for Selective Cell Capture by Molecular Imprinting and Integration Concept *Kyoko Fukazawa, Kazuhiko Ishihara* *The University of Tokyo, Japan*
12:10 – 12:25	Re_078	Surface Modification and Performance Changes of Chemically Treated Bacterial Cellulose *Jian Wu, Yudong Zheng, Haoye Meng, Tingfei Xi, Yinnan Feng* *University of Science and Technology Beijing, China*
12:25 – 12:40	Re_142	Construction of Biomimetic Polymer Surface for Endothelial Cell Selectivity *Yu Wei, Jian Ji* *Zhejiang University, China*

Session TUE2: Surface Modification of Ti and Ti-based Alloys (L4)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Matthew Dargusch (Australia), Dongseok Seo (Korea)*

11:25 – 11:40	Re_139	Coating of Nanostructured Hydroxyapatite by Room Temperature Spray on Ti Alloy *Sangwoo Kim, Dongseok Seo, Jongkook Lee* *Chosun University, Korea*
11:40 – 11:55	Re_105	Role of Macroscopic Moving Interfaces in Loading-Rate Dependent Mechanical Behaviors of NiTi Shape Memory Alloy *Yongjun He, Qingping Sun* *The Hong Kong University of Science and Technology, Hong Kong*
11:55 – 12:10	Re_197	Preparation and Osteoinduction of Active Micro-arc Oxidation Films on Novel Ti-3Zr-2Sn-3Mo-25Nb Biomedical Alloy *Sen Yu, Zhentao Yu, Gui Wang, Xiqun Ma, Matthew S. Dargusch* *The University of Queensland, Australia*
12:10 – 12:25	Re_047	Study on the Induced Bioactivity of β-Titanium Alloys *Hua Liu, Xiaofeng Chen* *South China University of Technology, China*
12:25 – 12:40	Re_129	Electrochemical Deposition of Porous Calcium Phosphate/Chitosan Composite Coating on Titanium Alloy *Jiabei Zhou, Kui Cheng, Wenjian Weng* *Zhejiang University, China*

Lunch (Time: 12:40 – 14:00)

Session TUE3: Biomedical Composites (D1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Michele Marcolongo (USA), Ulrike Wegst (USA)*

14:00 – 14:30	Re_I_011 (Keynote Lecture)	Surface Interactions of Model Systems of Blastocyst Implantation in the Uterus *Diane Rothstein, Noreen Robertson, Monika Jost, Karen Berkowitz, Ken Barbee, Michele Marcolongo* *Drexel University, USA*

14:30 – 14:45	Re_077	A Convenient Method for the Preparation of Nanohydroxyapatite-polyvinylyrrolidone Matrix *Amani Mostafa, Hassane Oudadesse, Yann Le Gal, Enas Foad, Guy Cathelineau* *Université de Rennes 1, France*
14:45 – 15:00	Re_106	Preparation and Interface Properties of Elastomeric Polyester/Carbon Nanotubes Composites *W. Zheng, Z.X. Meng, X.Q. Chen, J.C. Chen, M.K. Liu, M.H. Ding, Y.F. Zheng* *Harbin Engineering University, China*
15:00 – 15:15	Re_085	Quantitative X-ray Microtomography to Evaluate Structure-Property Linkages in Biomaterials with Hierarchical Structures *Amalie E. Oroho, David M. Turner, Philipp M. Hunger, Stephen R. Niezgoda, Matthew Schecter, Surya R. Kalidindi, Ulrike G.K. Wegst* *Drexel University, USA*
15:15 – 15:30	Re_137	Biological Response to Wear Debris of Carbon/Carbon Composites Generated by a Hip Joint Simulator *Lei-Lei Zhang, He-Jun Li, Ke-Zhi Li, Jin-Hua Lu, Xue-Ni Zhao, Sheng Cao* *Northwestern Polytechnical University, China*
15:30 – 15:45	Re_157	A Biocompatible Chitosan Composite Containing Phosphotungstic Acid Modified Single-walled Carbon Nanotubes *Qichao Zhao, Jing Yin, Xunda Feng, Zujin Shi, Zigang Ge, Zhaoxia Jin* *Renmin University of China, China*
15:45 – 16:00	Re_118	Nanocomposite of Poly(L-lactide) and Surface Modified Magnesia Nanoparticles: Fabrication, Mechanical Properties and Biodegradability *Xili Lu, Zhaomin Wang, Zhijie Sun, Yufeng Zheng* *Peking University, China*

Session TUE3: Dental Materials (E1)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Kunio Ishikawa (Japan), Jukka Matinlinna (Hong Kong)*

14:00 – 14:30	Re_I_01 (Keynote Lecture)	Hydrothermal Surface Modification with Calcium *Kunio Ishikawa* *Kyushu University, Japan*
14:30 – 14:45	Re_091	Electrodeposition of Ni-Co/diamond Composite Coating for Dental Burs under Ultrasonic Condition *Y. Zhou, Y. Cheng, Y.F. Zheng* *Peking University, China*

14:45 – 15:00	Re_022	Study of Surface Wear Resistance and Biological Properties of Ti-Zr-Nb-Sn Alloy for Dental Restoration *Xin Hu, Qiang Wei, Chang-yi Li, Jia Yin Deng, Shuang Liu, Lian-Yun Zhang* *Tianjin Medical University, China*
15:00 – 15:15	Re_104	Surface Conditioning Affects Bond Strength of Resin Composite to Zirconia *Timo T. Heikkinen, Lippo V.J. Lassila, Jukka P. Matinlinna, Pekka K. Vallittu* *The University of Hong Kong, Hong Kong*
15:15 – 15:30	Re_109	Behaviour of TiN and ZrN Layers in a Model of Dental Medical Preparations *L. Joska, M. Hradilova, J. Fojt* *Institute of Chemical Technology, Czech Republic*
15:30 – 15:45	Re_126	Lingual Retainers Bonded without Liquid Resin – a 5-year Clinical Study *Alexander T.H. Tang, Carl-Magnus Forsberg, Anna Andlin-Sobocki, Jan Ekstrand, Urban Hägg* *The University of Hong Kong, Hong Kong*
15:45 – 16:00	Re_051	Effect of Surface Treatment of Hydroxyapatite Whiskers on Mechanical Properties of bis-GMA Based Composites *Hongquan Zhang, Ming Zhang, Brian W. Darvell* *The Hong Kong Polytechnic University, Hong Kong*

Session TUE3: Electrospinning of Fibrous Structures for Medical Applications (J2)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Ning-Ping Huang (China), Kun Zhang (Japan)*

14:00 – 14:15	Re_113	Electrospinning Nanofibers with Concentrated Polymer Brushes *Kun Zhang, Chiaki Yoshikawa, Dohiko, Terada, Shinya Hattori, Hisatoshi Kobayashi* *National Institute for Materials Science, Japan*
14:15 – 14:30	Re_187	A Novel Bioresorbable Construct for Tendon Regeneration *Lucy Bosworth, Sandra Downes* *The University of Manchester, UK*
14:30 – 14:45	Re_059	Electrospinning of Fibrous Polymer Scaffolds Using Positive Voltage or Negative Voltage: A Comparative Study *Ho-Wang Tong, Min Wang* *The University of Hong Kong, Hong Kong*
14:45 – 15:00	Re_140	The Biocompatibility of Modified Chitosan Nanofibers *Yan-Yan Wang, Ning-Ping Huang, Lan-Xin Lü, Zhong-Dang Xiao* *Southeast University, China*
15:00 – 15:15	Re_008	Effects of the Alignment, Diameter and Surface Morphology of Electrospun Fibers on the Behaviour of Osteoblastic Cells *Ho-Wang Tong, Min Wang, Zhao-Yang Li, William W. Lu* *The University of Hong Kong, Hong Kong*

15:15 – 15:30 Re_024 Co-Electrospun Fibers of Poly (l-lactic acid) Blended with Gelatin and their Properties
Qing Cai, Qingqing Xu, Na Yan, Xiaoping Yang, Xuliang Deng
Beijing University of Chemical Technology, China

15:30 – 15:45 Re_108 Electrospinning Poly(L-lactide-co-ε-caprolactone)-blended Fibrinogen Nanofibrous Scaffolds for Tissue Engineering
Zhengdong Fang, Weiguo Fu, Zhihui Dong, Xiangman Zhang, Bin Gao, Yuqi Wang
Fudan University, China

15:45 – 16:00 Re_198 Gelatin-PLLA Bicomponent Fibrous Scaffolds for Tissue Engineering Applications
Jia-Chen Kang, Min Wang, Xiao-Yan Yuan
The University of Hong Kong, Hong Kong

Tea Break
(Time: 16:00 – 16:20. Venue: Foyer of the University Conference Centre)

Session TUE4: Nanoparticles and Quantum Dots in Medicine (F1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Mohan Edirisinghe (UK), Xuemei Wang (China)*

16:20 – 16:50 Re_I_10 (Keynote Lecture) Novel Microbubble and Microcapsule Preparation Methods for Imaging and Drug Delivery
Mohan Edirisinghe, Eleanor Stride
University College London, UK

16:50 – 17:05 Re_117 Superparamagnetic Iron Oxide Nanoparticles (SPION)-loaded Polymersome-mediated Gene Delivery Enhanced Guided by Magnetic Resonance (MR) Signal
Sang Joon Lee, Hyun Jin Lee, Y.T.C. Nguyen, Hui-Lian Che, Yong Yeon Jeong, In Kyu Park
Chonnam National University Medical School, Korea

17:05 – 17:20 Re_087 Study on the Biocompatible Nano-interface of Gold Modified Multiwalled Carbon Nanotube Aiming at Biomedical Application
Qingning Li, Xuemei Wang, Hui Jiang
Southeast University, China

17:20 – 17:35 Re_171 Size, Shape and Amount Controlled Synthesis of Gold Nanoparticles Using Chitosan as the Reducing Agent and Stabilizing Agent
Hui-Yun Hsieh, Chih-Wei Chou, Yi-Cian Lai
China Medical University, Taiwan

17:35 – 17:50 Re_179 The Effect of Different Sugar on Gold Nanoparticles Formation Mechanism
Ya-Lin Fang, Chih-Wei Chou
China Medical University, Taiwan

Session TUE4: Tissue Engineering Scaffolds and their Applications (I1)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Daping Quan (China), Yufeng Zheng (China)*

16:20 – 16:35 Re_084 Fabrication of 3D PCL-*b*-PLLA Nanofibrous Scaffold Potential for Cartilage Tissue Engineering
Liumin He, Bin Liu, Xipeng Guan, Gaoyi Xie, Daping Quan, Daozhang Cai, Jiang Lu
Sun Yat-sen University, China

16:35 – 16:50 Re_010 Ca-P/PHBV Nanocomposite Scaffolds Modified by Gelatin and Heparin and their Biological Evaluation
Bin Duan, Min Wang, Zhao-Yang Li, William W. Lu
The University of Hong Kong, Hong Kong

16:50 – 17:05 Re_056 Synthesis of Inorganic/Organic Composite Scaffold and Study of its Properties
Jianyun Wang, Dongming Zhang, Xiaohua Zhang, Xixun Yu, Changxiu Wan
Sichuan University, China

17:05 – 17:20 Re_153 The Preparation and Characterization of Ozone Modified PLLA Scaffolds for Osteoinduction
Tang-Yu Lo, Ming-Hua Ho
National Taiwan University of Science and Technology, Taiwan

17:20 – 17:35 Re_158 PLGA/TCP/Icaritin Composite Scaffold Developed for Repair of Steroid-associated Osteonecrosis Lesion in Rabbits: A Pilot Study with Micro-computed Tomography
X.H. Xie, G. Zhang, Y.X. He, X.L. Wang, X.H. Wang, K. He, J. Peng, K.S. Leung, Y. Leng, L. Qin
The Chinese University of Hong Kong, Hong Kong

17:35 – 17:50 Re_159 Porous PLGA/TCP/Icaritin Composite Scaffold and its Various Changes during Degradation *In Vitro*
X.H. Xie, G. Zhang, X.L. Wang, Y.X. He, X.H. Wang, K. He, F.Z. Ren, K.F. Wang, Y. Leng, T.T. Tang, L. Qin
The Chinese University of Hong Kong, Hong Kong

Session TUE4: Materials and their Surface Modification for Blood-contacting Medical Devices (M2)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Suming Li (China), Guo Jiang Wan (China)*

16:20 – 16:35 Re_167 Haemo- and Cytocompatibility of Bioresorbable Polymers Prepared from 1,3-Trimethylene Carbonate, Lactides and ε-Caprolactone
Jian Yang, Feng Liu, Song Tu, Yuanwei Chen, X. Luo, Suming Li
Fudan University, China

16:35 – 16:50 Re_146 Enhanced Endothelial Cell Selectively Capture via Antibody Functionalized Polyelectrolyte Multilayer Modification for Stent Endothelisation
Quankui Lin, Jian Ji, Jiacong Shen
Zhejiang University, China

16:50 – 17:05 Re_071 Electrochemical *In Situ* and Biological *In Vitro* Investigation of Biomaterials-related Thrombosis on Graphite
G.S. Jin, G.J. Wan, M.F. Maitza, N. Huang, B. Lv
Southwest Jiaotong University, China

17:05 – 17:20 Re_180 Corrosion Resistance and Biocompatibility of Fe-O Films Prepared by Thermal Oxidation
Yu Zhang, Nan Huang, Shengfa Zhu, Hengquan Liu, Hong Sun
Southwest Jiaotong University, China

17:20 – 17:35 Re_182 Study of Hemocompatibility of Silicon Oxynitride Films
Qiyi Wang, Ping Yang, Guicai Li, Ju Huang, Hongbin Su, Hong Sun, Nan Huang
Southwest Jiaotong University, China

17:35 – 17:50 Re_075 Comparison Study on the *In Vitro* Hemocompatibility of Polylactides with Different Ionic Moieties
J. Luo, Y.W. Chen, X.L. Luo, C.X. Wan
Sichuan University, China

Bus Transport to Banquet
(Departure Time: 18:30. Gathering Point: Podium, 4/F, Haking Wong Building, HKU)

Banquet & Visit to the Peak
(Time: 19:00 – 22:30)

Wednesday, January 6, 2010

Session WED1: Metallic Biomaterials (C1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Li Li (China), Tingfei Xi (China)*

09:00 – 09:30 Re_I_04 (Keynote Lecture) Corrosion Behavior of Copper and Protein Adsorption in Simulated Uterine Solution in the Presence of Proteins
Bianmei Cao, Yudong Zheng, Tingfei Xi, Yanxuan Ma
Peking University, China

09:30 – 09:45 Re_103 Tortional Fretting Corrosion Behaviors of Ti6Al4V Alloy in Hanks Solution
X.Z. Lin, M.H. Zhu, Z.B. Cai, L.P. He, P.D. Ren, Q. Zhang
Southwest Jiaotong University, China

09:45 – 10:00 Re_031 Effects of Magnesium Alloy Composition on Biomimetic Calcium Phosphate Coatings for Orthopaedic Implants
Jay Waterman, Mark Staiger, Tim Woodfield, George Dias, Shaylin Shadanbaz
University of Canterbury, New Zealand

10:00 – 10:15 Re_064 A Study on Current Heat Treated and Property Change of NiTi Orthodontic Wires
Li Li, Zhen Li , Zhao-qing Li, Yu-feng Zheng
Harbin Engineering University, China

10:15 – 10:30 Re_065 Hydrogen Absorption of Chemically Etched Nickel-Titanium Super-Elastic Wire
Zhen Li, Li Li, Hao Fang
Harbin Engineering University, China

10:30 – 10:45 Re_102 Oxygen Diffusion Hardening of Cp-titanium for Biomedical Applications
C. Hertl, E. Werner, R. Thull, U. Gbureck
Technische Universität München, Germany

Session WED1: Bioceramics (B2)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *William Lu (Hong Kong), Hassane Oudadesse (France)*

09:00 – 09:30 Re_I_18 (Keynote Lecture) Mechanical Properties of Interfaces between Sr-HA Bioactive Bone Cement and Bone by Nanoindentation: An *In Vivo* Study
W.W. Lu, A.H.W. Ngan, K.Y. Chiu, Z.Y. Li, B. Tang, K.D.K. Luk
The University of Hong Kong, Hong Kong

09:30 – 09:45 Re_028 Soft Tissue Response of Strontium-containing Calcium Phosphate Ceramics in Dog Muscle
Wen Zou, Ran Xu, Hezhong Cheng, Jiao Ming Luo
Sichuan University, China

09:45 – 10:00 Re_039 Influence of Zn Concentrations on the Bioactivity Kinetic of Melt-derived Glass
Hassane Oudadesse, Elodie Dietrich, G. Cathelineau
Université de Rennes 1, France

10:00 – 10:15 Re_163 Fabrication, Structure and *In Vitro* Bioactivity of Organic Acids Derived Bioactive Glasses
Bo Lei, Xiaofeng Chen, Yingjun Wang, Naru Zhao, Chang Du, Liming Fang
South China University of Technology, China

10:15 – 10:30 Re_041 The Effects of Clodronate-Hydroxyapatite Composite on Resorptive Activities of Osteoclasts
X.H. Zhang, J. Hu, G.Z. Yin, X. Liu, C.Y. Bao, C.L. Zhang, E. Luo
Sichuan University, China

Session WED1: Tissue Engineering Scaffolds and their Applications (I2)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Lucy Bosworth (UK), Xiaowen Yuan (New Zealand)*

09:00 – 09:15 Re_173 Bacterial Cellulose Nano-Fibre Reinforcement of Poly(Lactic Acid) Composite Scaffolds
X.W. Yuan, D. Liu, A.J. Easteal, D. Bhattacharyya
The University of Auckland, New Zealand

09:15 – 09:30 Re_011 Cytocompatibility and Osteoconductivity of Three-dimensional Selective Laser Sintered Nanocomposite Scaffolds
Bin Duan, Min Wang, Zhao-Yang Li, William W. Lu
The University of Hong Kong, Hong Kong

09:30 – 09:45 Re_186 A Novel Synthetic Bone Graft Substitute for Osteoporotic Patients
Anita K. Bassi, J Gough, S. Downes
The University of Manchester, UK

09:45 – 10:00 Re_162 Biodegradable Rice Starch/Hydroxyapatite Nanocomposite Scaffolds for Bone Repairing Applications
S. Punyanitya, R. Koonawoot, A. Raksujarit
Chiang Mai University, Thailand

Coffee Break
(Time: 10:45 – 11:05. Venue: Foyer of the University Conference Centre)

Session WED2: Analysis of Biomaterial Surface and Interface (O1)
(Venue: Room P501, University Conference Centre)

Session Chairmen: *Yuan Lin (Hong Kong), P. Sidney Sit (USA)*

11:05 – 11:20 Re_100 Dynamic Adhesion Energy between Surfaces Connected by Molecular Bonds
Yuan Lin
The University of Hong Kong, Hong Kong

11:20 – 11:35 Re_099 Transient State Analysis of Actin-based Motility
Limiao Bai, Yuan Lin
The University of Hong Kong, Hong Kong

11:35 – 11:50 Re_176 A Finite Element Analysis Study of Cell Mechanical Behavior on Patterned Surfaces
Kiran Katkuri, P. Sidney Sit
Louisiana Tech University, USA.

11:50 – 12:05 Re_193 Modeling and Simulation of Lysozyme Orientation on Surfaces
Yun Xie, Jian Zhou
South China University of Technology, China

12:05 – 12:20 Re_050 Effect of Bond Coat on the Residual Stress in Plasma Sprayed Hydroxyapatite Coatings Using Finite Element Analysis
Lei Song, Yi Huang, Xiaoguang Liu, Yanfeng Xiao, Fang Wu
Sichuan Universtiy, China

Session WED2: Biomedical Polymers and their Surface Modification (A3)
(Venue: Room P503, University Conference Centre)

Session Chairmen: *Artemis Stamboulis (UK), Min-Hao Zhu (China)*

11:05 – 11:20 Re_122 Effect of Active Screen Plasma Nitriding on the Biocompatibility of UHMWPE Surfaces
Georgia Kaklamani, Nazia Mehrban, James Bowen, Liam Grover, Hanshan Dong, Artemis Stamboulis
The University of Birmingham, UK

11:20 – 11:35 Re_054 Preparation and Characterization of Oxidized Sodium Alginate Covalently Cross-linked Chitosan Hydrogels
Feng Chen, Tian Meng, Xiaohua Zhang, Xixun Yu, Changxiu Wan
Sichuan University, China

11:35 – 11:50 Re_161 CD34 Antibody Conjugated Ultrathin Polycaprolactone Membrane for Stratified Cardiovascular Tissue Engineering Applications
Zhiyong Zhang, Mark Seow Khoon Chong, Erin Yiling Teo, Chuen-Neng Lee, Stephen Koh, Mahesh Choolani, Jerry Chan, Swee Hin Teoh
National University of Singapore, Singapore

11:50 – 12:05 Re_121 Tribological and Damage Behaviour of Polymethylmethacrylate (PMMA) Against Different Counter-bodies Induced by Torsional Fretting
Zhen-bing Cai , Min-hao Zhu, Juan Liu, Huo-ming Shen, Xiu-zhou Lin, Zhong-rong Zhou
Southwest Jiaotong University, China

12:05 – 12:20 Re_194 Chondroitin Sulfate Imobilization for the Fabrication of Biomimetic Brush Structures
Sumona Sarkar, Caroline Schauer, E. Vresilovic, Michele Marcolongo
Drexel University, USA

12:20 – 12:35 Re_196 Specific Bioaffiniting of Glycoproteins Observed on a Phospholipid Polymer Surface with Phenylboronic Acid Moiety
Aya Saito, Tomohiro Konno, Hiroki Ikake, Kimio Kurita, Kazuhiko Ishihara
The University of Tokyo, Japan

Session WED2: Nanoparticles and Quantum Dots in Medicine (F2)
(Venue: Room P602, University Conference Centre)

Session Chairmen: *Daxiang Cui (China), Xiang Wang (China)*

11:05 – 11:20 Re_112 Preparation of Surface Dendrimer-Modified Gold Nanorods by Round-Trip Phase Transfer Ligand Exchange
Peng Huang, Zhiming Li, Daxiang Cui
Shanghai Jiao Tong University, China

11:20 – 11:35 Re_088 Preparation of Fe_3O_4/HA Core-Shell Nanoparticles Exhibiting Good Bioapplication
Zhou Fang, Haiyang Liu, Pengfei Lian, Yu Teng, Qing Cai, Xiaoping Yang
Beijing University of Chemical Technology, China

11:35 – 11:50 Re_090 Synergistic Inhibition of Cancer Cells through Combination of Carborane Carboxylic Acid with Cys-CdTe QDs
Chunhui Wu, Lixin Shi, Qingning Li, Juan Zhao, Airong Guo, Matthias Selke, Hong Yan, Xuemei Wang
Southeast University, China

11:50 – 12:05 Re_068 Synthesis and Characterization of ZnSe and ZnSe/ZnS Quantum Dots
X. Wang, X. Feng, Y.F. Zheng
Harbin Engineering University, China

12:05 – 12:20	Re_169	One-Step Synthesis and Characterization of Polysaccharide-protected Gold Nanoparticles through a Thermal Process *Chih-Hsiu Chen, Chih-Wei Chou* *China Medical University, Taiwan*
12:20 – 12:35	Re_170	Preparation and Characterization of Hyaluronic Acid/Gold Core Shell Nanoparticles *Ko-Hsin Chang, Chih-Wei Chou, Yang-Chia Shih* *China Medical University, Taiwan*

Lunch (Time: 12:35 – 14:00)

End of ISSIB-II
(Time: 14:00)

General Information about Hong Kong

1. Climate

   The average temperature in January is around 16 °C with a humidity level of around 70%.

2. Electricity

   Sockets for 220 volts are dominant in Hong Kong. Always check the power supply before using your equipment.

3. Language

   English is the language of international business, while Cantonese is the territory's local language. Street signs, menus, tourism and government publications are bilingual. If you need help, talk to young people around you who can communicate with you in English.

4. Currency, office and bank hours

   Hong Kong's unit of currency is the Hong Kong dollar (HKD) which is currently tied to the USD at an exchange rate of HKD7.8 = USD1. Most foreign currencies and travelers cheques are easily changed at banks, hotels and moneychangers. Credit cards are widely accepted at major hotels, large restaurants, department stores and shops. Banks open from 0900 to 1630 weekdays and Saturday morning. Offices generally open from 0900 to 1700 Monday to Friday.

5. Telecommunications

   Hong Kong has a well-developed telecommunications infrastructure which provides easy access to a variety of international telecommunications network services. Electronic mail and database access services are widely used. International Direct Dial (IDD) and facsimile service cover most countries.

6. Transport

   Hong Kong is geographically compact and boasts one of the world's most efficient, safe, affordable and frequent public transport systems. Networks of double-decker buses and taxis operate territory-wide. The underground Mass Transit Railway covers all major districts in the territory, and includes stops at the boundary with Mainland China (Lo Wu and Lok Ma Chau). Hong Kong's taxis are cheap and efficient with a HK$18 (around USD2) flagfall. And for those looking for a mode of travel that has been used for decades, there are the Star Ferries and Hong Kong Island's street trams.