

# International Forum of Biomedical Materials — Biomaterials Interfaces and Nanobiomaterials

## Aug 1 – 3, 2016, Hangzhou, China

## 3<sup>rd</sup> circular



During the past decades, significant developments in the field of biomedical materials have been achieved. The International Forum of Biomedical Materials (IFBM), which is held at Hangzhou every 2 years since 2012, aims to provide a unique forum for communication and discussion in fundamental science, technology and application of the biomedical materials, by bringing together leading international scientists and engineers. One of the important aims of IFBM is to promote the scientific and technical growth in this field..

You are highly welcome to participate in this forum!





## Organization

#### Organizer

Institute of Biomedical Macromolecules, Zhejiang University

Scientific committee

Chairman: Jiacong Shen

🔷 Chairman

Changyou Gao

 Secretary in general Lie Ma

## Topics

- Surface/interfaces of biomaterials
- Nano and colloidal biomaterials
- Advanced drug delivery system
- Biomaterials for diagnosis and detection
- Materials for tissue engineering and regenerative medicine
- Biomedical products and biosafety study

#### Presentation

#### Time for Presentation

Keynote Speaker: 25 min (20 + 5 min discussion) Invited Oral: 20 min (15 + 5 min discussion)

Each presentation room is equipped with a laptop and a projector. Speakers may also use their own laptop, but are kindly recommended to test the connection and PPT in prior.

## **Poster Presentation**

The posters should be prepared with a size of 120 cm (Height) x 90 cm (Width). All posters will be numbered and presented on Aug. 2-3. Authors are kindly requested to be in front of the poster at least during the obligation time for presentation and discussion.



Aug.1	14:00-20:00		<b>Registration Open (Hotel lobby)</b>	
	8:30-9:00	Openi	ing ceremony (Hua Gang Ting, 4 <sup>th</sup> floor)	)/Photo taken
		<b>Concurrent I: Nanomaterials &amp; nanomedicine I</b> (Hua Gang Ting, 4 <sup>th</sup> floor)	<b>Concurrent II : Materials for regenerative medicine I</b> (Gui Yu Ting, 3 <sup>rd</sup> floor)	<b>Concurrent III: Surface and interface of biomaterials I</b> (Huan Bi Ting, 3 <sup>rd</sup> floor)
		Chair: Linqi Shi	Chair: Tingfei Xi	Chair: In-Seop Lee
	9:00-9:25	<b>To be confirmed</b> Zhongwei Gu (Keynote) <i>Sichuan University, China</i>	<b>To be confirmed</b> Guoping Chen (Keynote) National Institute for Materials Science, Japan	A systematic comparison of biodegradation behaviors of absorbable metal: in standardized immersion in vitro, vascular bioreactor ex vivo and in vivo study Nan Huang (Keynote) Southwest Jiaotong University, China
	9:25-9:50	<b>PGMA-based gene vectors with hydroxyl-rich groups</b> Fujian Xu (Keynote) <i>Beijing University of Chemical Technology, China</i>	Smart DNA hydrogels Dongsheng Liu (Keynote) Tsinghua University, China	<b>Dip-pen nanodisplacement lithography for constructing</b> <b>patterned 3D polymer surfaces for controlling cell behavior</b> Zijian Zheng (Keynote) <i>The Hong Kong Polytechnic University, China</i>
	9:50-10:10	<b>Photon-responsive DNA nanomaterials</b> Pik Kwan Lo (Invited) <i>City University of Hong Kong, China</i>	Peptide hydrogels as immune adjuvants Zhimou Yang (Invited) Nankai University , China	Antimicrobial nylon-3 as synthetic mimics of host defense peptide Runhui Liu (Invited) East China University of Science and Technology, China
Aug. 2	10:10-10:40		Coffee break/Poster session	
Au		Chair: Zhongwei Gu	Chair: Guoping Chen	Chair: Nan Huang
	10:40-11:05	Self-assembly and functionalization of block polymers/porphyrins Linqi Shi (Keynote) Nankai University, China	<b>To be confirmed</b> Tingfei Xi (Keynote) <i>Peking University , China</i>	Inorganic layers formed on various substrates as for drug reservoirs In-Seop Lee (Keynote) <i>Yonsei University, Korea</i>
	11:05-11:30	Polymer particles with tunable surface textures for controlled cellular uptake Jintao Zhu (Keynote) Huazhong University of Science and Technology, China	Mechanical control and modeling of human pluripotent stem cells Jianping Fu (Keynote) University of Michigan, USA	Chiral polymeric biointerface materials—from bio-recognition to bio-functions Taolei Sun (Keynote) Wuhan University of Technology, China
	11:30-11:55	Translocation, biological fate, stability and effective dose of engineered nanomaterials for nanosafety studies and nanomedicine Sergio Moya (Keynote) <i>CIC Biomagune, Spain</i>	Engineered bone tissues: from regenerative medicine to disease models Mark Chong (Keynote) Nanyang Technological University, Singapore	Making oligonucleotides better drugs by brush polymers Ke Zhang (Keynote) Northeastern University, USA
	11:55-12:15	<b>Glyco-nanoparticles for regulating immune response</b> Guosong Chen (Invited) <i>Fudan University, China</i>	<b>Bio-functionalization of tissue-engineered vascular grafts</b> ( <b>TEVG</b> ) to promote in situ tissue regeneration Qiang Zhao (Invited) <i>Nankai University , China</i>	Dental restorative/antibacterial materials with tight interface binding force bioinspired from salivary acquired pellicle Jianshu Li (Invited) Sichuan University, China
	12:15-14:00		Lunch (Western restaurant, 1 <sup>st</sup> floor)	



		Concurrent I: Nanomaterials & Nanomedicine II (Yun Xi Ting, 3 <sup>rd</sup> floor)	<b>Concurrent II: Materials for regenerative medicine II</b> (Gui Yu Ting, 3 <sup>rd</sup> floor)	Concurrent III: Surface and interface of biomaterials II (Huan Bi Ting, 3 <sup>rd</sup> floor)
		Chair: Sergio Moya	Chair: Jianping Fu	Chair: Ke Zhang
	14:00- 14:25	Responsive polymer nanocarriers rationally deliver antineoplastic agents Xuesi Chen (Keynote) Changchun Institute of Applied Chemistry, CAS, China	Design, fabrication and assessment of multifunctional tissue engineering scaffolds Min Wang (Keynote) The University of Hong Kong, China	<b>To be confirmed</b> Hong Chen (Keynote) <i>Suzhou University, China</i>
	14:25-14:50	Bio- and cyto-compatible particles and capsules by all- aqueous processing Ho Cheung Shum (Keynote) The University of Hong Kong, China	A methodology for the design and applications of citrate biomaterials Jian Yang (Keynote) <i>The Pennsylvania State University, USA</i>	Tailorable polymer crystalline surfaces for cellstimulation and sensingShanfeng Wang (Keynote)The University of Tennessee, USA
Aug. 2	14:50-15:10	TiO <sub>2</sub> nanomaterials based molecular probes for breast cancer therapy Aiguo Wu (Invited) Ningbo Institute of Materials Technology and Engineering, CAS, China	Recent trends of dental biomaterials for tissue regeneration Byung-Ho Yoon (Invited) Biomaterials R&D center, Korea	<b>Contact-active antimicrobial cationic polymer-graphene</b> <b>oxide nanohybrids with high potency and selectivity</b> Peng Li (Invited), <i>Nanjing Tech University, China</i>
	15:10-15:30	A holistic approach to optimal nanomedicine delivery by surface charge modulation Yucai Wang (Invited) University of Science and Technology of China, China	Controlled fabrication and biomedical applications of stimuli-responsive hydrogels Decheng Wu (Invited) Institute of Chemistry, CAS , China	A phenotype in <i>Pseudomonas aeruginosa</i> persistently adheres on various surfaces to resist the washing Fan Jin (Invited) University of Science and Technology of China, China
	15:30-16:00		Coffee break/Poster session	
	16:00-18:00	Activity of International	Summer School for Biomaterials (ISSB) (Gui Yu Ting,	3 <sup>rd</sup> floor)/Poster session
	18:00		Dinner (Western restaurant, 1 <sup>st</sup> floor)	



		Concurrent I: Nanomaterials & nanomedicine III (Yun Xi Ting, 3 <sup>rd</sup> floor)	<b>Concurrent II: Materials for regenerative medicine III</b> (Gui Yu Ting, 3 <sup>rd</sup> floor)	Concurrent III: Surface and interface of biomaterials III (Huan Bi Ting, 3rd floor)
		Chair: Mingyuan Gao	Chair: Dong-an Wang	Chair: Jian Ji
	8:30-8:55	<b>To be confirmed</b> Xiqun Jiang (Keynote) <i>Nanjing University, China</i>	Multifunctional stem cell delivery systems for ischemic limb regeneration Jianjun Guan (Keynote) The Ohio State University, USA	<b>Cationic polymers for antimicrobial effects for various applications</b> Chan Bee Eng Mary (Keynote) Nanyang Technological University, Singapore
	8:55-9:20	Multiscale biomaterials for enriching and eliminating cancer stem cells Xiaoming He (Keynote) The Ohio State University, USA	<b>Bioskiving: bioinspired fabrication of nanostructures from</b> <b>tissue slices</b> Qiaobing Xu (Keynote) <i>Tufts University, USA</i>	Multivalent Ephrin-B2 biomaterials to control arterial venous differentiation of pluripotent stem cells. Guohao Dai (Keynote) Rensselaer Polytechnic Institute, USA
	9:20-9:40	<b>Biodegradable polymer nanoparticles as carriers</b> <b>for lung drug delivery</b> Nazrul Islam (Invited) <i>Queensland University of Technology, Australia</i>	<b>The Surface functionalization of polypropylene and its</b> <b>antiadhesion efficacy in experimental hernia repair</b> Tianzhu Zhang (Invited) <i>Southeast University, China</i>	<b>Mediated cell migration and adhesion on structured substrates</b> Jun Fu (Invited) <i>Ningbo Institute of Materials Technology and Engineering, CAS,</i> <i>China</i>
Aug. 3	9:40-10:00	Compilation of AIE derivatives into polyplex for pursuit of improved colloidal stability and utility in tracing intracellular DNA trafficking Hui Gao (Invited) <i>Tianjin University of Technology, China</i>	Keratin based wound dressing and drug carrier Jiang Yuan (Invited) Nanjing Normal University, China	Multifunctional and universal proteinaceous coating inspired by amyloid-mediated bioadhesion Peng Yang (Invited) Shaanxi Normal University, China
	10:00-10:30		Coffee break/Poster session	
		Chair: Xiqun Jiang	Chair: Jianjun Guan	Chair: Chan Bee Eng Mary
		Nanoprobes for tumor theranostics	Microspheres/hydrogel composites for tissue engineering	Bionanointerface: from cell membrane mimic to protein mimic
	10:30-10:55	Mingyuan Gao (Keynote) Institute of Chemistry, CAS, China	applications Dong-an Wang (Keynote) Nanyang Technological University, Singapore	Jian Ji (Keynote) Zhejiang University, China
	10:30-10:55 10:55-11:20	Mingyuan Gao (Keynote)	applications Dong-an Wang (Keynote)	Jian Ji (Keynote)
-		Mingyuan Gao (Keynote) Institute of Chemistry, CAS , China <b>To be confirmed</b> Xingyu Jiang (Keynote) National Center for NanoScience and Technology,	applicationsDong-an Wang (Keynote)Nanyang Technological University, SingaporeFunctional biomaterials for musculoskeletal tissueregenerationLiming Bian (Keynote)The Chinese University of Hong Kong, China11:20-11:45:Improving corrosion resistance and biocompatibility ofWE43 magnesium alloy by custom made dual plasmaimplantation	Jian Ji (Keynote) Zhejiang University, China Interfacial soft matters for bioinspired lubrication Feng Zhou (Keynote)
	10:55-11:20	Mingyuan Gao (Keynote) Institute of Chemistry, CAS , China To be confirmed Xingyu Jiang (Keynote) National Center for NanoScience and Technology, China The morphology effect of polycation functionalized nanoparticles on gene transfection Nana Zhao (Invited)	applicationsDong-an Wang (Keynote)Nanyang Technological University, SingaporeFunctional biomaterials for musculoskeletal tissueregenerationLiming Bian (Keynote)The Chinese University of Hong Kong, China11:20-11:45:Improving corrosion resistance and biocompatibility ofWE43 magnesium alloy by custom made dual plasma	Jian Ji (Keynote) Zhejiang University, China Interfacial soft matters for bioinspired lubrication Feng Zhou (Keynote) Lanzhou Institute of Chemical Physics, CAS, China Patterning of biomaterials surface to selectively react with blood Qiang Shi (Invited)



	14:00-15:30	Activity of International Summer School for Biomaterials (ISSB) (Gui Yu Ting, 3 <sup>rd</sup> floor)/Poster sessio		
		<b>Concurrent I: Nanomaterials &amp; nanomedicine IV</b> (Yun Xi Ting, 3 <sup>rd</sup> floor)	<b>Concurrent II: Materials for regenerative medicine IV</b> (Gui Yu Ting, 3 <sup>rd</sup> floor)	
		Chair: Xiaoming He	Chair: Kelvin Yeung	
	15:30-15:55	<b>To be confirmed</b> Youqing Shen (Keynote) Zhejiang University, China	High strength injectable supramolecular polymer hydrogels Wenguang Liu (Keynote) Tianjin University, China	
g. 3	15:55-16:20	Recombinant protein-stabilized microbubbles for cancer theranostics Daeyeon Lee (Keynote) University of Pennsylvania, USA	Facile design of biodegradable elastomers for biomedical engineering Yi Hong (Keynote) The University of Texas at Arlington, USA	
Aug.	16:20-16:40	<b>To be confirmed</b> Bingbing Jiang (Invited) <i>Hubei University, China</i>	Mammalian messenger RNA N <sup>6</sup> -methyladenosine methylation selectivity Jianzhao Liu (Invited) Zhejiang University, China	
	16:40-17:00	<b>To be confirmed</b> Weijun Tong (Invited) <i>Zhejiang University, China</i>	<b>Bioactive gel scaffolds for adipogenic factors delivery</b> <b>and adipose tissue engineering</b> Huaping Tan (Invited) <i>Nanjing University of Science and Technology, China</i>	
	17:00-17:30	Closing ceremony (Gui Yu Ting, 3 <sup>rd</sup> floor)		
	18:00	Dinner (Western restaurant, 1 <sup>st</sup> floor)		



## **Registration Information**

#### Registration Fee

Regular participant: 300\$ (2000RMB)

Student (with certificate): 170\$ (1000 RMB)

Participant from industry: **5000 RMB** (including the Workshop and booth)

- \* The registration fee shall be paid by cash on site. Credit card is not acceptable.
- \* The registration fee for keynote and invited speakers are exempted.

#### Venue and Accommodation

#### Huagang HNA Resort (Hua Gang Hai Hang. 花港海航酒店)

No. 1 Yang Gong Di, West Lake District - West Lake Scenic Area, Hangzhou, China <u>http://www.hz-haihang.com/</u>

Single room/Double room: 450 RMB/day (including breakfast and free internet)

#### Transportation (TAXI)

From Hangzhou Xiaoshan Airport: ~ 150 RMB From Hangzhou Railway Station: ~ 30 RMB From Hangzhou East Railway Station: ~ 60 RMB



Contact

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## **Sponsors**

The Natural Science Foundation of China The Key Science Technology Innovation Team of Zhejiang Province Zhejiang University