



BDMC | 2018
INTERNATIONAL CONFERENCE | HANG ZHOU, CHINA
26-28 AUGUST

Conference Program

BDMC

2018

Hangzhou International Conference on Biomaterials, Bio-Design and Manufacturing

in conjunction with

H2020 BAMOS Project 2018 Meeting

AUGUST 26-28, 2018 | HANGZHOU, CHINA

Welcome message

On behalf of the scientific committee, we courteously welcome you to participate in Hangzhou International Conference on Biomaterials, Bio-Design and Manufacturing (BDMC2018) in conjunction with H2020 BAMOS Project 2018 Meeting, which will be held in **Hangzhou**, China during **August 27-28**, 2018. The objective of the conference is to promote the academic exchange of researchers from universities and industries in the field of biomanufacturing, with the hope of enhancing also the influence of the journal of ***Bio-Design and Manufacturing***.

Hangzhou is a rapid developing international metropolis located in the eastern China, full of splendid culture and beautiful legends. Zhejiang University is one of the top 5 universities in China. It hosted NSFC biomanufacturing conference last year, 60 scholars across disciplines gathered together to discuss the roadmap of biomanufacturing in China. The joint research laboratory on 3D bioprinting of Zhejiang University and Oxford University was set up to explore the frontiers of this field.

Welcome to Hangzhou, we hope you have a pleasant time here.



Huayong Yang

Chair, BDMC 2018

Zhejiang University, China



Zhanfeng Cui

Co-chair, BDMC 2018

University of Oxford, United Kingdom



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1. Conference Schedule

Schedule at a Glance

	Aug. 26		Aug. 27	Aug. 28
Morning – I	Registration		Registration	Registration
Morning – II			Open ceremony Plenary Talk	Plenary Talk
Morning – III			Keynote Talk	Keynote Talk
Afternoon – I	Registration		Parallel sessions S1, S2, BAMOS	Parallel sessions S5, S6, S7
Afternoon – II	Registration	BAMOS Project Assembly	Parallel sessions S3, S4, Young Researcher Forum	Lab Tour
Evening	Welcome Reception		Banquet	Evening Meal

Topics

- Topic 1:** Novel additive manufacturing mechatronic systems, in particular, 3D bioprinting platforms
- Topic 2:** Biomaterials and formulation of novel “bioinks” for tissue-specific applications
- Topic 3:** Engineering tissues and organs *in vitro* and *in vivo*
- Topic 4:** Design and fabrication of organ-on-a-chip, disease models, bioreactors, and medical and diagnostic devices
- Topic 5:** Design of therapeutic products, cellular products, and macromolecular products
- BAMOS:** Biomaterials and Additive Manufacturing: Osteochondral Scaffold Innovation, (H2020-MSCA-RISE-2016-734156)

Schedule

Sunday, August 26th, 2018	
North Star Hangzhou International Expo Center Hotel & Hangzhou Blossom Tao Hotel	
08:00 – 20:00	Registration Reception, 7F, North Star Hangzhou International Expo Center Hotel
16:00 – 18:00	BAMOS Project Assembly Chair: Mario Monzón Qianjiang Hall C, North Star Hangzhou International Expo Center Hotel
18:00 – 19:00	Welcome Reception Impression Restaurant, North Star Hangzhou International Expo Center Hotel

Monday, August 27th, 2018	
Conference Area, Hangzhou International Expo Center	
08:00 – 09:00	Registration (Lobby, 1F)
09:00 – 09:15	Open Ceremony (Function Hall A, 1F) Chair: Prof. Huayong Yang
09:15 – 10:45	Plenary Talk (Function Hall A, 1F) Chair: Prof. Peihua Gu Prof. Ali Khademhosseini / Prof. Huayong Yang / Prof. Shuxin Wang
10:45 – 11:15	Group photo (2F) Tea break / Poster / Exhibition (Lobby, 1F)
11:15 – 12:15	Keynote Talk (Function Hall A, 1F) Chair: Prof. Wei Sun Prof. Mario Monzón / Prof. Tong Cao Prof. Tao Xu / Dr. Philippa Benson
12:15 – 13:45	Lunch (Function Hall B&C, 1F) BDM Editorial Board Meeting (VIP 1-1, 1F)

Monday, August 27th, 2018 Conference Area, Hangzhou International Expo Center			
13:45 – 15:30	S1 Novel additive manufacturing mechatronic systems, in particular, 3D bioprinting platforms (401, 4F)	S2 Biomaterials and formulation of novel “bioinks” for tissue-specific applications - I (402, 4F)	BAMOS session (404, 4F)
15:30 – 15:50	Tea break / Poster / Exhibition (Lobby, 4F)		
15:50 – 17:35	S3 Engineering tissues and organs <i>in vitro</i> and <i>in vivo</i> (401, 4F)	S4 Design and fabrication of organ-on-a-chip, disease models, bioreactors, and medical and diagnostic devices - I (402, 4F)	Young Researcher Forum & Rapid Fire Session (404, 4F)
18:30 – 20:30	Banquet (Function Hall A, 1F) Conference Area, Hangzhou International Expo Center		

Lab Tour in the **27th afternoon** (optional)

- 14:00 Departure from Hangzhou International Expo Center
- 15:00 – 16:30 Lab Tour, Zijingang Campus, Zhejiang University (1.5 h)
- 16:40 Departure from Zhejiang University to the Banquet
- 20:30 Departure from the Banquet to the North Star Hangzhou International Expo Center Hotel / Hangzhou Blossom Tao Hotel

Tuesday, August 28th, 2018 Conference Area, Hangzhou International Expo Center			
08:00 – 09:00	Registration (Lobby, 1F)		
09:00 – 10:30	Plenary Talk (Function Hall A, 1F) Chair: Prof. Huayong Yang Prof. Mingjun Zhang / Prof. Wei Sun / Prof. James J. Yoo		
10:30 – 10:50	Tea break / Poster / Exhibition (Lobby, 1F)		
10:50 – 12:35	Keynote Talk (Function Hall A, 1F) Chair: Prof. Ali Khademhosseini, Prof. Mingjun Zhang Prof. Jinwu Wang / Dr. Chaozong Liu / Prof. Huawei Chen Prof. Qiqing Zhang / Dr. Yu Shrike Zhang Dr. Jeroen Bergmann / Dr. Bin Zhang		
12:35 – 13:35	Lunch (Function Hall B&C, 1F)		
13:35 – 15:05	S5 Design of therapeutic products, cellular products, and macromolecular products (401, 4F)	S6 Biomaterials and formulation of novel “bioinks” for tissue-specific applications - II (402, 4F)	S7 Design and fabrication of organ-on-a-chip, disease models, bioreactors, and medical and diagnostic devices - II (404, 4F)
15:05 – 15:20	Closing ceremony (Function Hall A, 1F) Chair: Prof. Huayong Yang		
15:40 – 18:30	Lab Tour		
18:40 – 20:30	Evening Meal (Yuanzheng Qizhen Hotel, Zijingang Campus)		

Lab Tour in the 28th afternoon

- 15:40 Departure from Hangzhou International Expo Center
- 16:40 – 18:30 Lab Tour, Zijingang Campus, Zhejiang University (1.5 h)
- 18:40 – 20:30 Evening Meal at Yuanzheng Qizhen Hotel in the Zijingang Campus
- 20:30 Departure from Yuanzheng Qizhen Hotel to North Star Hangzhou International Expo Center Hotel / Hangzhou Blossom Tao Hotel

2. Organizers

Supervising Authority



Organizers



*Bio-Design and
Manufacturing*

Co-organizers



Universidade do Minho



生物制造工程分会

Sponsors



3. Committee

Scientific Advisory Committee



Huayong Yang
Chair, BDMC 2018
 Editor-in-chief, *BDM*
 Academician, Chinese
 Academy of Engineering
 Professor, Zhejiang
 University



Zhanfeng Cui
Chair, BDMC 2018
 Editor-in-chief, *BDM*
 Fellow, Royal Academy
 of Engineering, UK
 Professor, University of
 Oxford



Jianrong Tan
 Academician, Chinese
 Academy of Engineering
 Professor, Zhejiang
 University



Bingheng Lu
 Academician, Chinese
 Academy of Engineering
 Professor, Xi'an
 Jiaotong University



Yingjun Wang
 Academician, Chinese
 Academy of Engineering
 Professor, South China
 University of Technology



Kerong Dai
 Academician, Chinese
 Academy of Engineering
 Professor, Shanghai
 Jiao Tong University



Peihua Gu
 Academician, Canadian
 Academy of Engineering
 Professor, Shantou
 University



Ali Khademhosseini
 Levi Knight Professor,
 University of California-
 Los Angeles (UCLA),
 USA



Wei Sun
 Professor, Tsinghua
 University
 Editor-in-chief,
Biofabrication



James J. Yoo
 Professor, Wake Forest
 Institute for
 Regenerative Medicine,
 USA

Name	University	Specialty	Country/ Region
Amy Wagoner Johnson	University of Illinois at Urbana–Champaign	Molecular, Cellular and Tissue Engineering	USA
Bin Zhang	Zhejiang University	Mechanical Engineering	China
Boris N. Chichkov	Leibniz University Hannover	Mechanical Engineering	Germany
Chaozong Liu	University College London	Medicine	UK
Daniel Chen	University of Saskatchewan	Mechanical Engineering	Canada
Deyuan Zhang	Beihang University	Mechanical Engineering	China
Hongwei Ouyang	Zhejiang University	Medicine	China
Huiming Wang	Zhejiang University	Stomatology	China
Jeroen Bergmann	University of Oxford	Biodesign	USA
Jerry Fuh Ying-His	National University of Singapore	Mechanical Engineering	Singapore
Jiandong Ding	Fu Dan University	Materials Science and Engineering	China
Jong-Young Kwak	Ajou University	Biochemistry	Korea
Jun Yin	Zhejiang University	Mechanical Engineering	China
Kaiming Ye	Binghamton University	Medicine	USA
Lih-sheng Turng	University of Wisconsin-Madison	Mechanical Engineering	USA
Lobat Tayebi	Marquette University	Dentistry	USA
Mario Monzón	University of Las Palmas de Gran Canaria	Mechanical Engineering	Spain
Miguel Oliveira	University of Minho	Medicine	Portugal
Mingjun Zhang	The Ohio State University	Bioengineering	USA
Paulo Bartolo	University of Manchester	Advanced Manufacturing	UK
Shaochen Chen	University of California San Diego	Nano Engineering	USA
Shuxin Wang	Tianjin University	Mechanical Engineering	China
Song Li	University of California Los Angeles	Bioengineering	USA
Tao Xu	Tsinghua University	Mechanical Engineering	China

Name	University	Specialty	Country/ Region
Tong Cao	National University of Singapore	Oral Science	Singapore
Wojciech Swieszkowski	Warsaw University of Technology	Materials Science and Engineering	Poland
Wei Li	University of Texas at Austin	Mechanical Engineering	USA
Weilin Wang	Zhejiang University	Clinical Medicine	China
Will Shu	University of Strathclyde	Bioengineering	UK
Xiangyang Zhu	Shanghai Jiao Tong University	Robotics	China
Yi-Kuen Lee	The Hong Kong University of Science and Technology	Mechanical Engineering	Hong Kong
Yong Chen	University of South California	Mechanical Engineering	USA
Yong He	Zhejiang University	Mechanical Engineering	China
Yong Huang	University of Florida	Mechanical Engineering	USA
Yonghua Chen	University of Hong Kong	Mechanical Engineering	Hong Kong
Yu Shrike Zhang	Harvard Medical School	Biomedical Engineering	USA
Zaida Ortega	University of Las Palmas de Gran Canaria	Chemical Engineering	Spain
Zhongrong Zhou	Southwest Jiaotong University	Mechanical Engineering	China
Zhongze Gu	Southeast University	Biomedical Engineering	China



Organizing Committee

Bin Zhang (Chair)	Zhejiang University	China
Liang Ma	Zhejiang University	China
Y.H. (Helen) Zhang	Zhejiang University Press	China
Yong He	Zhejiang University	China
Mario Monzón	University of Las Palmas de Gran Canaria	Spain
Ting Zhang	Tsinghua University	China
Jun Yin	Zhejiang University	China
Yancheng Wang	Zhejiang University	China
Mengfei Yu	Zhejiang University	China
Chaozong Liu	University College London	UK
Miguel Oliveira	University of Minho	Portugal
Ling Wang	Xi'an Jiaotong University	China

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4. Plenary Talk

Plenary Talk 1: Emerging Organ Models and Organ Printing for Regenerative Medicine

Monday, August 27th | 09:15 – 09:45 | Function Hall A, 1F



Dr. Ali Khademhosseini

Professor, Department of Bioengineering, Chemical Engineering, Radiology, University of California-Los Angeles (UCLA)

Director, Center for Minimally Invasive Therapeutics at UCLA
Associate Director, California NanoSystems Institute at UCLA

Biography

Dr. Ali Khademhosseini is the Levi Knight Professor of Bioengineering, Chemical Engineering and Radiology at the University of California-Los Angeles (UCLA). He is the Founding Director of the Center for Minimally Invasive Therapeutics at UCLA as well as an Associate Director of the California NanoSystems Institute. In addition, he is an eminent scholar at Konkuk University in Korea, as well as Adjunct Professor at King Abdulaziz University in Saudi Arabia.

He joined UCLA starting Nov. 2017 from Harvard University where he was Professor at Harvard Medical School (HMS) and faculty at the Harvard-MIT's Division of Health Sciences and Technology (HST), Brigham and Women's Hospital (BWH) and as well as associate faculty at the Wyss Institute for Biologically Inspired Engineering. His research is based on developing micro- and nanoscale biomaterials to control cellular behaviour with particular emphasis in developing engineered materials and systems for tissue engineering. He is also developing 'organ-on-a-chip' systems that aim to mimic human response to various chemicals in vitro. In addition, his laboratory is developing technologies to control the formation of vascularized tissues with appropriate microarchitectures as well as regulating stem cell differentiation within microengineered systems. He has also pioneered various high-performance biomaterials for medical applications that are currently being pursued for clinical translation.

Plenary Talk 2: 3D Bioprinting Tissues and Organs: Advances, Challenges, and Future

Monday, August 27th | 09:45 – 10:15 | Function Hall A, 1F



Dr. Huayong Yang

Academician, Chinese Academy of Engineering
Professor, Head, School of Mechanical Engineering,
Zhejiang University
Director, the State Key Laboratory of Fluid Power and
Mechatronic Systems
Editor-in-chief, *Bio-Design and Manufacturing, Journal of
Zhejiang University-Science A*

Biography

Huayong Yang received his bachelor's degree from Huazhong University of Science and Technology in 1982 and Ph.D. degree from University of Bath in 1988. He is now the head of the School of Mechanical Engineering of Zhejiang University and the director of the State Key Laboratory of Fluid Power and Mechatronic Systems.

His research interests are in motion control and energy saving of mechatronic systems, development of fluid power component and system, integration of electro-hydraulic system and engineering applications, 3D bioprinting machine and biofabrication applications. He has received a number of honors and recognitions including been awarded the National Natural Science Foundation for Distinguished Young Scholars in 2004, selected as the Yangtze River scholars Distinguished Professor of Ministry of Education in 2005, the Chief Scientist of a project founded by the National Basic Research Program of the Ministry of Science and Technology twice in 2007 and 2012, elected as a member of the Chinese Academy of Engineering in 2013. He has been a fellow member of the Chinese Mechanical Engineering Society, and a member of the Academic or Advisory Committees of 10 State Key Laboratories of Chinese top universities. He serves as the editor-in-chief of the journal *Bio-Design and Manufacturing* and *Journal of Zhejiang University-Science A*.

Plenary Talk 3: Design Evolution of Medical Robot with Flexible Structures for Minimally Invasive Surgery from Tissue to Cell

Monday, August 27th | 10:15 – 10:45 | Function Hall A, 1F



Dr. Shuxin Wang

Professor, Vice President, Tianjin University
Director, Key Laboratory of Mechanism Theory and Equipment Design, Ministry of Education

Biography

Shuxin Wang received a PhD degree from Tianjin University in 1994 and joined the Department of Mechanical Engineering at the Tianjin University in 1990. He is now the Vice President of Tianjin University (TJU), the director of the Medical Robotics Joint Research Center co-established by Tianjin University and WegoTM Group, and the director of Ministry of Education Key Laboratory of Mechanism Theory and Equipment Design, Tianjin University.

His research interests are surgical robotics, underwater glider and multi-body dynamics. He is the author or co-author of over 160 academic papers and has over 60 authorized patents. He and his team are well known for the development of the “MicroHand” robot, which is the first minimally invasive surgical robotic system that has been conducted human clinical trials in China. He and his team also developed Underwater Glider (named Haiyan) which set a world record by diving 8,213 meters. He is a Yangtze River Scholar of the Ministry of Education, the winner of National Science Fund for Distinguished Young Scholars of China, He has been awarded twice the State Science and Technology Prize. He is a member of Technical Committee for Multibody Dynamics in International Federation for the Promotion of Mechanism and Machine Science (IFTToMM), and the associate editor of *Robotic Surgery*.

Plenary Talk 4: Bio-inspired Design and Green Nano-manufacturing of Nanoparticles for Nanomedicine

Tuesday, August 28th | 09:00 – 09:30 | Function Hall A, 1F



Dr. Mingjun Zhang

Professor, Department of Biomedical Engineering, Department of Surgery (Courtesy), Department of Electrical and Computer Engineering (Courtesy), Neurological Institute and Davis Heart and Lung Research Institute, The Ohio State University
Center for Regenerative Medicine and Cell Based Therapies

Biography

Mingjun Zhang is Professor of Biomedical Engineering, Electrical and Computer Engineering (courtesy) and Surgery (courtesy), Neurological Institute and Davis Heart and Lung Institute at The Ohio State University. He received the Doctor of Science degree in Systems Science and Mathematics from Washington University in St. Louis, and the PhD degree in Industrial Automation from Zhejiang University. He also holds MS degrees in Electrical Engineering and Bioengineering respectively from Stanford University. His BS/MS degrees were in Mechanical from Zhejiang University. His research interest lies in bio-inspired nanoparticles and bio-inspired robotics, and how we can learn from biological systems in nature, especially at the micro/ nano-scale, in order to engineer biocompatible nanomaterials and further develop innovative robotic systems that are capable of interfacing with molecular and cellular systems for advanced therapeutics and tissue engineering applications. To meet the emerging needs for disease early diagnosis and treatment, Zhang's laboratory has made significant discoveries recently towards disease-oriented research, employing nanotechnology and robotics expertise to pursue biomedical engineering research on cancer, wound healing, cardiovascular and Alzheimer's disease.

Plenary Talk 5: Biomaterials for Bioprinting

Tuesday, August 28th | 09:30 – 10:00 | Function Hall A, 1F



Dr. Wei Sun

Professor, Department Mechanical Engineering,
Tsinghua University

Albert Soffa Chair Professor, Department of Mechanical
Engineering and Mechanics in College of Engineering,
Drexel University

Editor-in-Chief, *Biofabrication*

Biography

Dr. Wei Sun serves as Professor in Department Mechanical Engineering at Tsinghua University, and also as Albert Soffa Chair Professor in Department of Mechanical Engineering and Mechanics in College of Engineering, and affiliate Professor in School of Biomedical Engineering, Science, and Health Systems at Drexel University. Dr. Sun's research has been focused on Biofabrication, Computer-Aided Tissue Engineering, CAD/CAM, and Additive Manufacturing. His research has been sponsored by National Science Foundation (NSF), National Aeronautics and Space Administration (NASA), National Institute of Standard and Technology (NIST), Army Research Laboratory (ARL), Johnson & Johnson (J&J), and other private sectors.

Dr. Sun is currently serving Editor-in-Chief for journal *Biofabrication* (published by Institute of Physics - IOP), and is also currently serving as Member of Editorial Board for other 6 international journals. He is the founding Chair of Biomanufacturing Technical Committee for Division of Manufacturing Science and Engineering in American Society of Mechanical Engineering (ASME). Dr. Sun received the award of the University Research Fellow from the University of Sydney, Australia (2010), the Outstanding Research Award from the College of Engineering in Drexel University (2009), the William Mong Fellow from the University of Hong Kong (2008), and the Ralph R. Teetor Educational Award from the International Society for Automotive Engineers (2003).



Plenary Talk 6: Bioprinting for Translational Applications

Tuesday, August 28th | 10:00 – 10:30 | Function Hall A, 1F



Dr. James J. Yoo

Professor, Wake Forest Institute for Regenerative Medicine,
Office of Women in Medicine and Science,
Physiology & Pharmacology, Wake Forest School of Medicine

Biography

Dr. Yoo is Professor and Associate Director of the Wake Forest Institute for Regenerative Medicine (WFIRM), with a cross-appointment to the Departments of Urology, Physiology and Pharmacology, and the Virginia Tech-Wake Forest School of Biomedical Engineering and Sciences. Dr. Yoo's research efforts have been directed toward the clinical translation of tissue engineering technologies and cell-based therapies. Dr. Yoo's background in cell biology and medicine has facilitated the transfer of several cell-based technologies from the bench-top to the bedside. A few notable examples of successful clinical translation include the bladder, urethra, vagina, and muscle cell therapy for incontinence. Dr. Yoo has been a lead scientist in the bioprinting program at WFIRM, and has been instrumental in developing skin bioprinting and integrated tissue and organ printing (ITOP) systems for preclinical and clinical applications.



Young Researcher Forum: Influences of graduate research experience on academic career - Personal experience and reflection

Monday, August 27th | 15:50 – 16:20 | 404, 4F



Dr. Peihua Gu

Academician, Canadian Academy of Engineering
Professor, Executive President, Shantou University
Dean, College of Engineering, Shantou University
Professor, Emeritus at the University of Calgary, Canada

Biography

Peihua Gu is currently Professor Emeritus at the University of Calgary, Canada. He was Provost and Vice-President (Academic) and Dean of Engineering, Shantou University (STU) since 2011 to 2018. He was seconded to Shantou University by the University of Calgary for the period of 2005-2010. Dr. Gu was Head of the Department of Mechanical and Manufacturing Engineering (1999-2005) and was Associate Dean (Research), Schulich School of Engineering (1997-1999), the University of Calgary. Dr. Gu was selected the Top 150 Alumni of Faculty of Engineering, McMaster University in 2018. In ELSVIER's Most Cited Chinese Researchers, he was ranked Number 1 in the field of Industrial and Manufacturing Engineering for 2014, 2015 and 2016 consecutively.

His main research contributions include establishment of Adaptable Design Method, development of Multisource and Multi-material Freeform Fabrication (3D Printing) technology, various techniques and systems in free-form modelling, manufacturing and inspection as well as manufacturing planning. He is an author and co-author of over 270 technical publications.

5. Keynote Talk

Standardization in additive manufacturing: Activities carried out by ISO and ASTM

Monday, Aug 27th | 11:15 – 11:30 | Function Hall A, 1F

Prof. Mario Monzón, University of Las Palmas de Gran Canaria, Spain



Mario Monzón is a doctor Industrial Engineering and a professor in the University of Las Palmas de Gran Canaria (Spain), Department of Mechanical Engineering. He is coordinator of the integrated and advanced manufacturing processes research group. The main field of research is, polymer processing, additive manufacturing, rapid tooling, natural fiber composites and technical textile. Also, biomaterials for additive manufacturing applied to tissue engineering and micro-manufacturing. Founding member of the Spanish Association of Rapid Manufacturing (ASERM). Since 2011 He is member of ISO TC261 for standardization in additive manufacturing and since 2014 member of the European committee CEN TC 438 for standardization in AM, representing the Spanish national body UNE. He has participated in 33 research national and European projects, 13 research projects funded by companies, 59 scientist publications, 46 proceedings in international conferences, supervisor of 7 doctoral thesis and co-author of 7 national and international patents. Coordinator of the PhD program in Chemical, mechanical and Manufacturing Engineering in ULPGC. Member of the editorial board of the Journal *Bio-Design and Manufacturing* (Elsevier) and editor of the book *Additive Manufacturing – Developments in Training and Education* (Springer).

iHuman: Build an unlimitedly expandable, vascularized and innervated Organchain from a gold-standard single cell

Monday, Aug 27th | 11:30 – 11:45 | Function Hall A, 1F

Prof. Tong Cao, National University of Singapore, Singapore



Dr. Cao Tong is Editor-in-Chief of *World Journal of Stem Cells*. He is a Maxillofacial Surgeon, has been establishing iHuman platforms with international patents WO/2016/039687 and WO/2016/209166 since 2003. He is Vice Dean, Director of Oral Sciences Disciplines, Faculty of Dentistry, National University of Singapore, and National University Centre for Oral Health, National University Health System since 2010. He is Invited Reviewer for 16 renowned international research funding

agencies and authorities including Cancer Research UK, Medical Research Council UK, The Wellcome Trust UK, European Science Foundation, and Times Higher Education, World University Rankings. He serves as Editor-in-Chief for World Journal of Stem Cells; Advisory Editorial Board, Editorial Advisory Board, and Editorial Board for ten international peer review journals. He has been invited and sponsored to speak at over 55 international conferences and scholarly meetings. He has published over 150 scientific full articles in international peer review journals and books. He is current President, International Association of Dental Research Singapore Section since 2011. He has funded the spinoff and startup companies LabSkinPro, Ace BioMed and recently Yuan Sheng (iHuman). He has collaborated with global corporate Evonik Industry to develop technology, product and international partnership in other countries in the area of iHuman.

3D Bioprinting For Regenerative Medicine

Monday, Aug 27th | 11:45 – 12:00 | Function Hall A, 1F

Prof. Tao Xu, Tsinghua University, China



Dr. Xu obtained his Ph.D. in Bioengineering from Clemson University, SC, USA in 2005 and had worked as Research Scientist at Wake Forest Institute for Regenerative Medicine, NC, USA from 2005 to 2008. Dr. Xu had been appointed as Assistant Professor of Biomedical Engineering at University of Texas at El Paso from 2008 to 2013. He had also served as the CTO at Medprin Biotech LLC at Los Angeles, CA, USA from 2008 to 2014. Since 2014 he has been appointed as a full Professor at the Department of Mechanical Engineering, Tsinghua University, Beijing, China.

Dr. Xu's expertise is in the field of cell inkjet printing. As one of the pioneers in this emerging field, he has published over 100 peer-reviewed articles and abstracts. Dr. Xu owns the first patent of inkjet printing of viable cells, which has been licensed to Organovo (NASDAQ: ONVO), the leading bioprinting company worldwide. So far Dr. Xu has applied for over 65 US, Europe, China and other international patents, and 53 of them have been granted.

Dr. Xu's research has been featured in many national and international media, including CNN, CBS, Time Magazine, Science Magazine, etc. In particular, Business 2.0 magazine ranked his technology of Cell and Organ Printing as "one of the six technologies that can change the world in 21st century". Dr. Xu has obtained various supports from U.S. and Chinese governments, such as US National Science Foundation (NSF), National Institutes of Health (NIH), Department of Defence (DoD), and Chinese 863 High-tech Project, Chinese army key project, etc.

The Perils and Pleasures of Transparency: Improving Global Collaboration in the Conduct of Science

Monday, Aug 27th | 12:00 – 12:15 | Function Hall A, 1F

Dr. Philippa J. Benson, *Science Advances*, AAAS, USA



Philippa J. Benson received both her M.A. and her Ph.D. from Carnegie Mellon University (CMU). In her doctoral work, she studied the cognitive processes of reading, writing, and information design by both native and non-native speakers of English, with a focus on how people create and revise on scientific and technical texts. She has published extensively on topics related to pedagogy and scientific publishing.

Dr. Benson currently works at the American Association for the Advancement of Science (AAAS), where she has been Managing Editor of *Science Advances*, the digital only, open access expansion of Science magazine. There she leads a team of in-house staff and over 155 external academic editors in publishing high-impact papers on topics in the areas of biomedicine, earth/environment/space sciences, physical and material sciences, and inter- and cross disciplinary work. Previous to her work at AAAS, Dr. Benson has worked launching new journals for science organizations. She is a member of the Council of Science Editors, the Society for Scholarly Publishing, and the Society for Technical Communication, and the World Association of Medical Editors. She is also an Adjunct Professor in the Publishing Program at the George Washington University in Washington DC.

3D bioprinting joints: advances and clinical transformation

Tuesday, Aug 28th | 10:50 – 11:05 | Function Hall A, 1F

Prof. Jinwu Wang, Shanghai Ninth People's Hospital, Shanghai Jiaotong University School of Medicine



Dr. Jinwu Wang is a Professor and Chief Physician of Shanghai Ninth People's Hospital, affiliated to SJTU School of Medicine. Dr. Wang is also an Adjunct Professor of SJTU School of BME. He is the PI of 4 national research projects from Chinese Ministry of Science and technology, and NSFC, and the PI of 10 provincial research projects. He has participated in editing 7 books (Associate Editor of 3 books), applied for 5 national invention patents, and published over 40 journal



articles. As the leading researcher, he has won the First Prize of Shanghai Medicine Science and Technology Advancement Award, and the First Prize of Chinese Medical Science and Technology Award. He is a contributing Editor of Chinese Journal of Orthopaedic Trauma, Editor of *Journal of Clinical Rehabilitative Tissue Engineering Research*, and a Standing Committee Member of Traumatic Orthopedics Academy affiliated to Chinese Association of Rehabilitation of Disabled Persons. His main research interests include: neural prostheses; implantable electrical stimulators; medical rehabilitation robotics; artificial joints; and trauma biomaterials.

On the bioactivity and cell attachment of 3D fabricated titanium scaffolds

Tuesday, Aug 28th | 11:05 – 11:20 | Function Hall A, 1F

Dr. Chaozong Liu, University College London, UK



Dr Chaozong Liu is a Non-clinical Senior Lecturer in Biomedical Engineering, the programme leader of MSc in Musculoskeletal Science, and the group leader of UCL Biomaterials & Osteochondral Tissue Engineering within the Division of Surgery & Interventional Science University College London. He has several years' experience of biomaterials processing and development of medical devices.

Dr Liu's current research is directed toward the development of enhanced medical devices for treating musculoskeletal disorders, tissue repair and regeneration. This is a growing area of interest at UCL Surgical & Interventional Science. His research in this area is supported by ARUK, Innovate UK, Horizon2020, EPSRC MeDe Innovation Centre and RoseTree Trusts, and from Fitzpatrick Referrals Ltd. He has developed a new osteochondral scaffold technology that is likely to have a strong potential in regeneration of bone and cartilage for early intervention of osteoarthritis. Preclinical study has demonstrated that the new osteochondral scaffold has the strength needed to bear the physical load of the joints and its patented biomedical structure encourages consistent cartilage fill. A glimpse of how this scaffold will perform has been given, with promising results, by Professor Noel Fitzpatrick of the Channel 4 TV series *Supervet*, where it was implanted in a pet dog shoulder to treat a large osteochondral defect. The recent awards from Innovate UK-MoST and EU HORIZON2020 have significantly boosted his research in this field.

Biomimetic anti-slipping surface design of surgical instrument

Tuesday, Aug 28th | 11:20 – 11:35 | Function Hall A, 1F

Prof. Huawei Chen, Beihang University, China



Huawei CHEN received a PhD degree of Engineering from the Tokyo Institute of Technology in 2005 and joined the School of Mechanical Engineering and Automation at the Beihang University as an associated professor in 2007. He is now the chair of Department of Mechanical Manufacturing and Automation.

His research interests cover the bio-inspired functional surfaces, micro/nano fabrication, micro/nano fluid and diverse applications to medical engineering. He was a JSPS fellow, High-level Oversea Talents of Beijing, Guest Professor of Tokyo Institute of Technology and Wollongong University. He obtained the National Science Fund for Distinguished Young Scholars in 2017 and Youth Science and Technology Innovation Leader. Dr. Chen has published more than 80 journal papers in *Nature*, *Nature materials*, *Small*, *Angew. Chemie*, *ACS Applied Materials & Interface* etc.

3D Bio-printing Based Guide Tissue Regeneration Materials

Tuesday, Aug 28th | 11:35 – 11:50 | Function Hall A, 1F

Prof. Qiqing Zhang, Chinese Academy of Medical Science & Peking Union Medical College, China



Qiqing Zhang is Doctoral Supervisor, Researcher of Second Grade, Deputy Director of the Academic Committee of Institute of Biomedical Engineering, Chinese Academy Medical Sciences & Peking Union Medical College, Visiting Professor at College of Pharmacy, University of Toronto, and Visiting Professor at School of Science and Technology, Aalto University, Finland. He was former director of Biomedical Engineering Research Centre, Xiamen University. He is Dean of the Institute of Biomedical and Pharmaceutical Technology of

Fuzhou University now. He is also the Chairman of the Professional Committee of Nano-material in China; Member of International TC-194; Committee Member of BIO-CHINA International Biological Materials; Executive Director of Medical Device Branch of Chinese Society of Instrument and Meter Committee; Member of Chinese Society of Biological Materials, Committee Member of National Technical Committee for Standardization; and principal or executive member of more than 40 domestic and overseas academic institutions; standing member, editorial board member or reviewer of more than 30

magazines like *JAMS*, *Biomaterial*; assessment expert of Ministry of Science and Technology, National Technology Prize, National Research Foundation, Ministry of Education, Ministry of Public Health, The National Development and Reform Commission, State Food and Drug Administration as well as an effective academician candidate for Chinese Academy of Sciences.

Putting 3D Bioprinting to the Use of Tissue Model Fabrication

Tuesday, Aug 28th | 11:50 – 12:05 | Function Hall A, 1F

Dr. Yu Shrike Zhang, Harvard Medical School, USA



Dr. Zhang received a B.Eng. in Biomedical Engineering from Southeast University, China in 2008, after which he then obtained a M.S. in Biomedical Engineering from Washington University in St. Louis (2011) and a Ph.D. in Biomedical Engineering at Georgia Institute of Technology and Emory University School of Medicine (2013). Dr. Zhang then pursued postdoctoral training at Brigham and Women's Hospital, Harvard Medical School, Harvard-MIT Division of Health Sciences and Technologies, and Wyss Institute for Biologically Inspired Engineering.

Dr. Zhang is currently a Research Faculty at Harvard Medical School and Associate Bioengineer at the Brigham and Women's Hospital. Dr. Zhang's research is focused on innovating medical engineering technologies, including 3D bioprinting, organs-on-chips, microfluidics, biomedical imaging, and biosensing, to recreate functional tissues and their biomimetic models. In collaboration with a multidisciplinary team encompassing biomedical, mechanical, electrical, and computer engineers as well as biologists and clinicians, his laboratory seeks to ultimately translate these cutting-edge technologies into the clinics. He is an author of >120 publications and his scientific contributions have been recognized by >40 international, national, and regional awards. More information can be found on his website (www.shrikezhang.com).

Developing additive manufacturing as an evidence-based clinical methodology for personalized medical devices

Tuesday, Aug 28th | 12:05 – 12:20 | Function Hall A, 1F

Dr. Jeroen Bergmann, University of Oxford, UK



Jeroen Bergmann received his PhD degree from King's College London. Dr Jeroen Bergmann is an Associate Professor in Engineering Science and Senior Research Fellow in Engineering & Entrepreneurship at the Department of Engineering Science at the University of Oxford. He is also the group leader of the Natural Interactions Lab, a Lecturer at Christ Church and Director of the Oxford Biodesign programme. His research interest is in developing assistive technologies through the translation of engineering principles between domains, thus creating innovative medical devices. He has experience in developing laboratory prototypes and taking them through clinical validation to make a real-world impact. His work focuses on the development, design and application of novel healthcare technologies and he has published on additive manufacturing within the medical field.

He is a member of the British Standards Institution (BSI) and an Editorial Board Member of *Bio-Design & Manufacturing*. He was an invited session speaker for IEEE EMBC flagship conference and invited speaker for the Institution of Mechanical Engineers (IMechE) event in 2018. He is recipient of the Oxford Interdisciplinary Bioscience Impact Award 2017 for Enterprise and Innovation. Dr Bergmann is also founder of Oxford's Medical CE Marking Forum and holds a research portfolio of several intellectual properties.

3D bio-printing method for structurally controllable film for artificial biosynthetic cornea

Tuesday, Aug 28th | 12:20 – 12:35 | Function Hall A, 1F

Dr. Bin Zhang, Zhejiang University, China



Bin Zhang, Ph.D. in Engineering, Associate Researcher. He received a doctorate in electromechanical and electrical engineering from Zhejiang University in 2009. He entered the post-doctoral workstation of Zhejiang University in February 2010 and was engaged in tissue engineering at the Institute of Biomedical Engineering at Oxford University in 2015 as a visiting scholar in 3D printing. He went to Kaohsiung No. 1 University of Science and Technology in Taiwan to conduct an interview



cooperation on "axial piston pump pulse modelling and analysis" and went to Sauer-Danfoss to carry out research cooperation on pump motor flow pulsation analysis. He mainly studied smart digital hydraulic pressure and applied in engineering machinery and agricultural machinery, field application, organize engineering biology 3D printing technology. He oversaw 2 national natural science fund projects, 1 national support plan, 4 special projects and 1 project and more than 10 provincial and ministerial projects, published more than 30 academic papers, applied for 15 national invention patents and 5 software copyrights.

6. Technical Program

S1: Novel Additive Manufacturing Mechatronic Systems, in Particular, 3D Bioprinting Platforms

Monday, August 27th | 13:45 – 15:30 | 401, 4F

Chair: Xiaobin Xu, Yancheng Wang

Time	Speaker	Title
13:45 – 14:00 Chair	Xiaobin Xu, University of California-Los Angeles	Scalable 2D/3D Nanofabrication & Multifunctional Micromotors
14:00 – 14:15 Chair	Yancheng Wang, Zhejiang University	Fabrication of Cell Patterning Scaffolds through Projection-Based 3D Printing
14:15 – 14:30	Xianglin Zhang, Huazhong University of Science and Technology	Application of Cryogenic Electrohydrodynamic technology in preparation of tissue engineering scaffold
14:30 – 14:45	Geng Yang, Zhejiang University	Skin-Attached Flexible Sensing Technology for Human-Centric Healthcare and Human- Robot Interaction
14:45 – 15:00	Hongcheng Gu, Southeast University	Direct Laser Writing of Materials with Controlled Microstructural Architecture
15:00 – 15:15	Xiaojiang Liu, Southeast University	Design and Manufacturing of Bio-inspired Liquid Superrepellent Structures via TPP Technology



S2: Biomaterials and Formulation of Novel “Bioinks” for Tissue-specific Applications – I

Monday, August 27th | 13:45 – 15:30 | 402, 4F

Chair: Jun Yin, Deepak Kalaskar

Time	Speaker	Title
13:45 – 14:00 Chair	Jun Yin, Zhejiang University	Additive manufacturing of tough physical hydrogels with high performance
14:00 – 14:15 Chair	Deepak Kalaskar, University College London	Optimisation of 3d printing process for patient specific bone regeneration
14:15 – 14:30	Chao Liu, The Affiliated Stomatologic Hospital of Medical College, Zhejiang University	Light-Induced Anisotropic Cell Sheet Technology for The Construction of Vascularized Tissue
14:30 – 14:45	Guang Liu, Beihang University	Nepenthes inspired ultra-slippery textured surface for anti-sticking of soft tissue
14:45 – 15:00	Qi Gu, Institute of Zoology	The Inks and Scaffolds from Natural Tissues
15:00 – 15:15	Deming Zhang, Zhejiang University	The influence of the cross-sectional morphology on the compressive resistance of polymeric nerve conduits and the stiffness of the substrate on nerve regeneration
15:15 – 15:30	Yu-han Ho, Shanghai Industrial Technology Research Institute	Single-cell High Throughput (SCHT) 3D bio-printing platform



BAMOS Session (Biomaterials and Additive Manufacturing: Osteochondral Scaffold Innovation)

Monday, August 27th | 13:45 – 15:30 | 404, 4F

Chair: Miguel Oliveira, Ling Wang

Time	Speaker	Title
13:45 – 14:00 Chair	Miguel Oliveira, University of Minho	Natural-based biomaterials and bioinks: Bioprinting, Tissue Engineering and Imaging
14:00 – 14:15 Chair	Ling Wang, Xi'an Jiaotong University	Customized Prosthesis Design: Design, manufacturing and evaluation
14:15 – 14:30	Hao Bai, Zhejiang University	Ice-templated biomimetic materials for bone tissue engineering
14:30 – 14:40	Alejandro Santana, University of Las Palmas de Gran Canaria	Computational and experimental study of porous titanium scaffolds fabricated by EBM for repairing bone defects
14:40 – 14:50	Changning Sun, Xi'an Jiaotong University	Design and Automatic Modelling of Gradient Porous Implant
14:50 – 15:00	Miao Sun, Zhejiang University	Custom Repair of Mandibular Bone Defects with 3D Printed Bioceramic Scaffolds
15:00 – 15:10	Mingqing Wang, University College London	Additive Manufactured SS316L and Ti6Al4V Biomaterials: Mechanical and Corrosion Performance
15:10 – 15:20	Chaoqi Xie, Zhejiang University	Electrohydrodynamic 3D Printing of High-resolution Scaffolds with Heterogeneous structure
15:20 – 15:30	Maryam Tamaddon, University College London	Improved bone and cartilage regeneration in a rapid-manufactured functionally-graded osteochondral
	Mario Monzón	Evaluation of different combinations of biomaterials for bone regeneration



S3: Engineering Tissues and Organs *in vitro* and *in vivo*

Monday, August 27th | 15:50 – 17:35 | 401, 4F

Chair: Jiankang He, Amy Wagoner Johnson

Time	Speaker	Title
15:50 – 16:05 Chair	Jiankang He, Xi'an Jiaotong University	Innovation on multiscale 3D printing for biomedical applications
16:05 – 16:20 Chair	Amy Wagoner Johnson, University of Illinois at Urbana-Champaign	Novel Osteointegration Mechanism for and Fabrication of CaP-Based Scaffolds for Bone Regeneration
16:20 – 16:35	Ting Zhang, Tsinghua University	Engineering of biomimetic complex tissue with hierarchical structure for <i>in vivo</i> and <i>in vitro</i> studies
16:35 – 16:50	Rui Yao, Tsinghua University	Construction of human liver tissue by bioprinting of embryonic stem cells and progenitor cells
16:50 – 17:05	Yan'en Wang, Northwestern Polytechnical University	3D printed bioceramics bone scaffolds under room temperature: processing related challenges
17:05 – 17:20	Harish Handral, National University of Singapore	<i>In vitro</i> bio-manufacturing of 3D skin tissue equivalents from human embryonic stem cells
17:20 – 17:35	Li Yang, Zhejiang University	Printing liver cell scaffold for liver function recovery with stereolithography

S4: Design and Fabrication of Organ-on-a-chip, Disease Models, Bioreactors, and Medical and Diagnostic Devices - I

Monday, August 27th | 15:50 – 17:35 | 402, 4F

Chair: Liang Ma, Shaohua Ma

Time	Speaker	Title
15:50 – 16:05 Chair	Liang Ma, Zhejiang University	Microfluidic Based 3D Glioblastoma multiforme (GBM) Model and Comparison study of Genomics and Proteomics Analysis between 2D and 3D
16:05 – 16:20 Chair	Shaohua Ma, Tsinghua-Berkeley Shenzhen Institute	Microfluidics fabrication of soft microtissues and the 3D-printing
16:20 – 16:35	Qing Peng, Zhujiang Hospital of Southern Medical University	Fabrication of hepatic plate-biomimicking 3D liver tissue using a microfluidic chip
16:35 – 16:50	Haibo Ding, Southeast University	Organs-on-Chips Systems fabricated by Two-Photon Polymerization
16:50 – 17:05	Elena Provaggi, University College London	Combining fused filament fabrication (FFF) and finite element modelling (FEM) for the optimisation of design and manufacturing process of a polycarbonate lumbar interbody implant
17:05 – 17:20	Wensen Jiang, University of California, Riverside	Polymer Coatings on Mg for Improving Human Endothelial Cell Adhesion and Spreading
17:20 – 17:35	Qing Gao, Zhejiang University	DLP-based 3D Printing of Three-dimensional Modular Paper-based Microfluidic Analytical Devices



Young Researcher Forum & Rapid fire session

Monday, August 27th | 15:50 – 17:35 | 404, 4F

Chair: Peihua Gu, Bin Zhang

Time	Speaker	Title
15:50 – 16:20 Chair	Peihua Gu, Shantou University	Influences of graduate research experience on academic career - Personal experience and reflection
Rapid Fire Session (3 min / talk)		
	Tian Jiao, Xi'an Jiaotong University	Multi-droplet Inkjet Printing of 3D Multilayered Hydrogel Structures for Soft Tissue Engineering
	Shao Lei, Zhejiang University	Fiber-based Mini Tissue with Morphology-Controllable GelMA Microfibers
	Jiaxing Gong, Zhejiang University	Surface Hydroxyl Groups Regulate the Osteogenic Differentiation of Mesenchymal Stem Cells on Titanium and Tantalum Metals
	Yichen Luo, Zhejiang University	Skin Printing with Vascularized Structure
	Dongqi You, Zhejiang University	Controlled release of naringin in metal-organic frameworks (MOFs) loaded mineralized collagen coating to simultaneously enhance osseointegration and antibacterial activity
	Huiwen Hu, Zhejiang University	Preparation of PDA/TiO ₂ Composite Film on PTFE by Two-step Method and Its Cellular Response
	Qi Li, Zhejiang University	A Temperature Controllable Bio-Printer of Sterilization
	Yuan Sun, Zhejiang University	Preparation and cellular responses of Ca ²⁺ conjugated ECM / TiO ₂ nanorods composite coating



Yu Wang, Zhejiang University	The osteogenic effect of mesenchymal stem cells with directionality via titanium dioxide nano-rod quartz plate
Wangbei Cao, Zhejiang University	Preparation of Gradient Hydrogel Biomaterials for Tissue Regeneration via 3D-printing
Jieliang Song, Shanghai Jiao Tong University	Establishment of interface between clinical diagnosis data of bone defect and 3D bioprinter
Yuanzhong Gao	The pre-research of vascularized tissue with 3D bioprinting method
Jing Nie, Zhejiang University	Vessel-on-a-chip with Hydrogel-based Microfluidics
Binglei Pan, Xi'an Jiaotong University	Multi-nozzle 3D cell printing and culturing system for multi-layer tissue construction
Qian Xue, Zhejiang University	3D Bioprinting System and Method for Corneal Substitutes with controllable shape
Hao Zhang, Zhejiang University	Research of identifying methods for skin illness with deep learning
Sandra Pina, University of Minho	Ionic-doped Bioceramics for Musculoskeletal Tissues Regeneration
Lei Gao, Zhejiang University	3D printing of Cardiac Patch with Oriented Heart Cells
Raquel Maia, University of Minho	Evaluation of decellularization process to obtain matrices for tissue regeneration approaches
Yihan Lin	Enhanced Osteointegration of Hierarchical Structured 3D-Printed Titanium Implants



S5: Design of therapeutic products, cellular products, and macromolecular products

Tuesday, August 28th | 13:35 – 15:05 | 401, 4F

Chair: Ben Wang, Zhen Fan

Time	Speaker	Title
13:35 – 13:50 Chair	Ben Wang, Zhejiang University	Towards to single-cell translational medicine based on cell surface engineering
13:50 – 14:05 Chair	Zhen Fan, Tongji University	Bioinspired peptide assemblies with tunable fluorescence properties and their applications for cancer theranostics
14:05 – 14:20	Tingli Lu, Kai Han, Northwestern Polytechnical University	A bionic adhesive hydrogel based on dopamine and gelatin
14:20 – 14:35	Lai Xiao, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences	Evaluation of the PLGA/TCP/Mg Porous Scaffold Fabricated by 3D printing for In vivo Bone Regeneration
14:35 – 14:50	Zonghuan Wang, Zhejiang University	Morphology and mechanical properties of the poly(lactide-co-glycolide) hollow fiber membranes



S6: Biomaterials and formulation of novel “bioinks” for tissue-specific applications – II

Tuesday, August 28th | 13:35 – 15:05 | 402, 4F

Chair: Hua'nan Wang, Lingqing Dong

Time	Speaker	Title
13:35 – 13:50 Chair	Hua'nan Wang, Dalian University of Technology	Colloidal Biomaterials as Building Blocks for Bottom-up Construction of Engineered Tissues
13:50 – 14:05 Chair	Lingqing Dong, Zhejiang University	Surface Atomic Structure Directs the Fate of Human Mesenchymal Stem Cells
14:05 – 14:20	Changchun Zhou, Sichuan University	3D printing of bioceramics with accurate porous structures for craniomaxillofacial bone repair
14:20 – 14:35	Haoxuan Wang, Zhejiang University	Stereolithography-based 3D Bioprinting of Complex Gelatin Methacrylate (GelMA) Constructs
14:35 – 14:50	Mingjun Xie, Zhejiang University	Fabrication of Low-concentration Cell-laden GelMA Microspheres via Electrohydrodynamic Technology
14:50 – 15:05	Duo Zhang, University of Cambridge	Direct-Write Nano-Wrinkled Polystyrene Fibres for Guided Cell Migration



S7: Design and fabrication of organ-on-a-chip, disease models, bioreactors, and medical and diagnostic devices - II

Tuesday, August 28th | 13:35 – 15:05 | 404, 4F

Chair: Yong He, Yong Luo

Time	Speaker	Title
13:35 – 13:50 Chair	Yong He, Zhejiang University	3D Bioprinting Bionic Manufacturing from Structure to Function
13:50 – 14:05 Chair	Yong Luo, Dalian University of Technology	Nephron-on-a-chip for Drug Toxicity Assessment
14:05 – 14:20	Shuqi Wang, Zhejiang University	Development of a biomimetic liver tumor-on-a-chip model based on decellularized liver matrix for toxicity testing
14:20 – 14:35	Liwen Zhang, Beihang University	Bioinspired strong wet attachment surface based on the strong boundary friction of tree frog's toe pad
14:35 – 14:50	Yuting Li, Zhejiang University	The Construction of GBM Microenvironment Based on 3D Bioprinting

7. General Information

Conference venue



Address: 353 Benjing Ave, Qianjiang Century City, Xiaoshan District, Hangzhou
杭州萧山区奔竞大道 353 号

Telephone: +86 0571-8290 8888

Website: <http://www.hiechangzhou.com/Home/Index/index/lang/en-us>

Hangzhou International Expo Center is located in Qianjiang Century City, Xiaoshan District in Hangzhou. The centre is on the south bank of Qiantang River and to the east of the Third Qiantang River Bridge. It is affiliated to Hangzhou Olympic and International Expo Center Xiaoshan Construction Investment Co., Ltd. and has been entrusted to North Star Events Group, the largest convention and exhibition output management group in China.

G20 Hangzhou Summit was held at Hangzhou International Expo Center on Sept. 4th and 5th, 2016. Hangzhou International Expo Center is a complex with multiple business formats integrating tourism, meeting, exhibition, hotel, business and office and has provided superior expectations for the creative operation of exhibition venues.





Floor Plan

1F 会议区 Conference Area

会议区平面图
conference Area Floor Plan

- 会议室
Conference Rooms
- VIP室
VIP Room
- 序厅
Lobby
- 入口
Entrance
- 自动扶梯
Escalator
- 电梯厅
Elevator
- 卫生间
Restroom



VIP 1-1
BDM Editorial Board Meeting

Entrance C3
Shuttle Bus Stop
Drop-off Site

Function Hall B&C
Lunch Area

Function Hall A
Opening/Closing Ceremony
Plenary Talk
Keynote Talk
Banquet (Aug 27)

4F 会议区 Conference Area

会议区平面图
conference Area Floor Plan

- 会议室
Conference Rooms
- VIP室
VIP Room
- 序厅
Lobby
- 入口
Entrance
- 自动扶梯
Escalator
- 电梯厅
Elevator
- 卫生间
Restroom



402
S2, S4, S6

401
S1, S3, S5

404
BAMOS
Young Researcher Forum
S7



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Accommodation



杭州国际博览中心北辰大酒店
NORTH STAR HANGZHOU INTERNATIONAL EXPO CENTER HOTEL

Address: 353 Benjing Ave, Qianjiang Century City, Xiaoshan District, Hangzhou
杭州萧山区奔竞大道 353 号

Telephone: +86 0571-8290 8888

Website: www.hiechotel.com



Hangzhou Blossom Tao Hotel 杭州宝盛道谷酒店

Address: D entrance of Building No.3, No.800, Qianjiang Century City, Minhe Road,
Hangzhou 杭州市萧山区民和路 800 号宝盛世纪中心 3 号楼

Telephone: +86 0571-8290 8888

Website: <http://www.blossom-tour.com/Hotel/>

Transportation

Form Hangzhou Xiaoshan International Airport:

Taxi About 71 yuan (RMB)

Airport Express (Binjiang Line 滨江线): 8:30、9:20、10:40、12:00、13:20、14:40、
16:00、17:10、18:40、20:00

Please take airport express (Binjiang line 滨江线) and get off at Jiangling Road (江陵路) Station, then take No.419 bus at the Jiangling Road Station and get off at the Hangzhou International Expo Center.

From Hangzhou Dong Railway Station:

Taxi About 31 yuan (RMB)



Public Transportation: Please take metro line 4 and get off at Qianjiang Road Station, then transfer to subway line 2 and get off at Qianjiang Century City Station, then take No.419 bus at Liyi Road, Minhe Road Intersection Station and get off at the International Expo Center.



Shuttle bus timetable (Hotel – Conference Venue)

Monday, Aug 27 th				
Hangzhou Blossom Tao Hotel		North Star Hangzhou International Expo Center Hotel		Hangzhou International Expo Center
7:45	→	7:55	→	
	←	8:05	←	8:00
8:15	→	8:25	→	
	←	8:35	←	8:30
8:45	→	8:55	→	
	←	13:05	←	13:00
13:30	→	13:40	→	
	←	14:05	←	14:00
14:30	→	14:40	→	

**Monday, Aug 27th**

Hangzhou Blossom Tao Hotel		North Star Hangzhou International Expo Center Hotel		Hangzhou International Expo Center
	←	15:05	←	15:00
15:30	→	15:40	→	
	←	16:05	←	16:00
16:30	→	16:40	→	
	←	17:05	←	17:00
17:30	→	17:40	→	
Terminal	←	18:05	←	18:00
Terminal	←	20:35	←	20:30

Tuesday, Aug 28th

Hangzhou Blossom Tao Hotel		North Star Hangzhou International Expo Center Hotel		Hangzhou International Expo Center
7:45	→	7:55	→	
	←	8:05	←	8:00
8:15	→	8:25	→	
	←	8:35	←	8:30
8:45	→	8:55	→	
	←	13:05	←	13:00
13:30	→	13:40	→	
	←	14:05	←	14:00
14:30	→	14:40	→	
	←	15:05	←	15:00
15:15	→	15:25	→	
Terminal	←	15:35	←	15:30



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Sightseeing (optional)

Wed, Aug 29th | 450 yuan (RMB) per person

Route 1:

Xixi National Wetland Park 西溪湿地 → Lunch (Shanwaishan 山外山) → Lingyin Temple 灵隐寺 + Breeze-ruffled Lotus at Quyuan Garden 曲院风荷



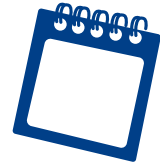
Route 2:

One-day trip to Wuzhen 乌镇



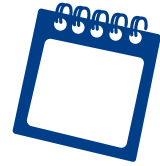


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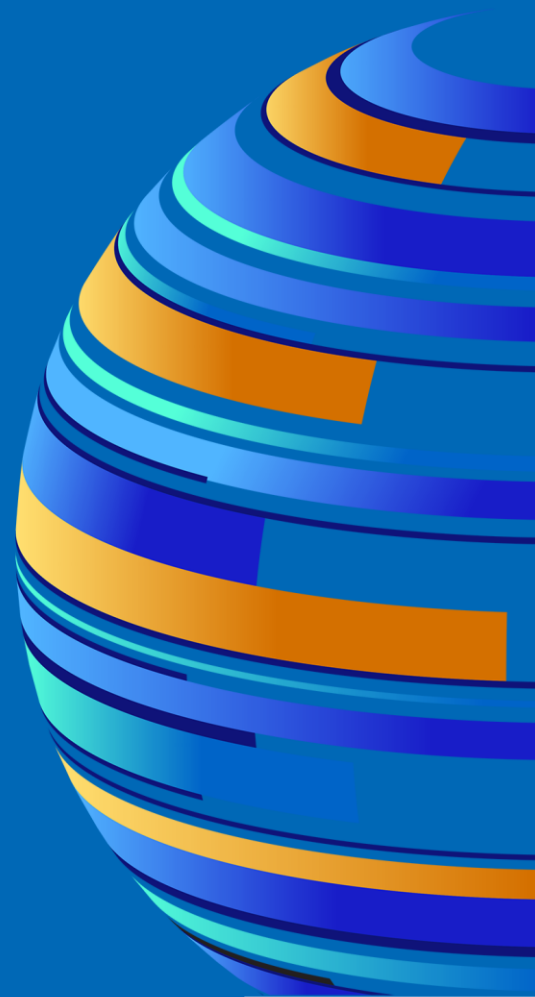
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