



International Silk Conference 2014

PROGRAM BOOKLET



08-12 OCT 2014
SHANGHAI · SUZHOU
CHINA



Program of International Silk Conference 2014

(8 Oct~12 Oct, 2014, Shanghai and Suzhou, China)

DAY 0, Wednesday, 8 Oct, 2014

08:30 ~ 18:00 **Arrival & Registration (Fuxuan Hotel)**

19:00 ~ 22:00 **Welcome Reception**

DAY 1, Thursday, 9 Oct, 2014

08:30 ~ 08:45 **Opening Remarks: David. Kaplan**

08:45 ~ 10:15 **Chair: Randolph V. Lewis**

08:45 ~ 09:15 Unusual Spider Silks
Fritz Vollrath, *Oxford University, UK*

09:15 ~ 09:45 Development of Biomaterials Using Silk Fibroin in Korea
Chan Hum Park, *Hyallan University, Korea*

09:45 ~ 10:15 Electrospun Slik Fibroin Nanofibers for Tissue Engineering
Xiumei Mo(莫秀梅), *Donghua University, China*

10:15 ~ 10:45 **Tea/Coffee Break**

10:45 ~ 12:15 **Chair: Chris Holland**

10:45 ~ 11:15 Spider Silk: Not Just for Fibers Anymore
Randolph V. Lewis, *Utah State University, USA*

11:15 ~ 11:45 Aqueous Based Processing of Recombinant Spider Silks: Fibers and Films
Justin Andrew Jones, *Utah State University, USA*

11:45 ~ 12:15 Design and Biosynthesis of Recombiant Silk Protein-based Biomaterials
Xiaoxia Xia(夏小霞), *Shanghai Jiao Tong University, China*

12:15 ~ 12:30 **Photo Session**

12:30 ~ 13:30 **Lunch**

13:30 ~ 15:30 **Chair: Xiangyang Liu**

13:30 ~ 14:00 Complementary Molecules: Silk and Elastin
Tony Weiss, *University of Sydney, Australia*

14:00 ~ 14:30 Silk Assembly Control and Functional Design Based on Materials Perspective
Qiang Lv(吕强), *Soochow University, China*

14:30 ~ 15:00 When is a Silk not a Silk? When It's a Melt?
Chris Holland, *The University of Sheffield, UK*

15:00 ~ 15:30 Silk Sericin Based Biomedical Materials
Yurong Cai(蔡玉荣), **Juming Yao(姚菊明)**, *Zhejiang Sci-Tech University, China*

15:30 ~ 16:00 **Tea/Coffee Break**

16:00 ~ 18:00	Chair: Zhengzhong Shao
16:00 ~ 16:30	Genetics and Genetical Modification of <i>Bombyx. mori</i> Silks Feng Wang (王峰) , <i>Southwest University, China</i>
16:30 ~ 17:00	Injectable silk-polyethylene glycol hydrogels Xiaoqin Wang (王晓沁) , <i>Soochow University, China</i>
17:00 ~ 17:30	Sericin in Materials Science Ki Hoon Lee , <i>Seoul National University, Korea</i>
17:30 ~ 18:00	Functional Materials Developed from Fibroin and Sericin Haiping Zhang (张海萍) , <i>Zhejiang University, China</i>
18:00 – 20:00	Dinner

DAY 2, Friday, 10 Oct, 2014

08:30 ~ 10:00	Chair: Tetsuo Asakura
08:30 ~ 09:00	Tuning the Mechanical Properties of Silk Biomaterials David. Kaplan , <i>Tufts University, USA</i>
09:00 ~ 09:30	New Insights into the Microstructure and Mechanics of Silks Gustavo R. Plaza , <i>Universidad Polit écnica de Madrid, Spain</i>
09:30 ~ 10:00	Structural Analysis of Silk Fibers during Their Deformation and Importance of the Beta-sheet Formation Keiji Numata , <i>RIKEN Biomass Engineering Program, Japan</i>
10:00 ~ 10:30	Tea/Coffee Break
10:30 ~ 12:30	Chair: Gustavo R. Plaza
10:30 ~ 11:00	Silk Structure Studied with Solid State NMR Tetsuo Asakura, Keiko Okushita , <i>Tokyo University of Agriculture and Technology, Japan</i>
11:00 ~ 11:30	Mechanical Properties and Structures of Natural Silks Revealed via Dynamic Mechanical Thermal Analysis Juan Guan (管娟) , <i>Beihang University, China</i>
11:30 ~ 12:00	Shedding Light on the Nanostructure of Silk Proteins Using Large Scale Facilities Ann E Terry , <i>Rutherford Appleton Lab, ISIS Facil, Sci & Technol Fac Council, UK</i>
12:00 ~ 12:30	Exploiting Dityrosine Formation for Enhancement of Elasticity and β -sheet Formation in Silk Fibroin Biomaterials James Harden , <i>University of Ottawa, USA</i>
12:30 ~ 14:00	Lunch
14:00 ~ 17:00	Leave for Suzhou (Howard Johnson All Suites Suzhou)
18:00 ~ 20:00	Dinner

DAY 3, Saturday, 11 Oct, 2014

08:30 ~ 10:00	Chair: Tony Weiss
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08:30 ~ 09:00	Silk Fibrous Materials: From Hierarchical Structure to Performance Xiangyang Liu , <i>National University of Singapore, Singapore</i>
09:00 ~ 09:30	Structural Characterization of Silk Fibers and Silk Protein-based Materials with Advanced Infrared Techniques Xin (Terry) Chen (陈新) , <i>Fudan University, China</i>
09:30 ~ 10:00	Silk Research at Deakin University Rangam Rajkhowa , <i>Deakin University, Australia</i>
10:00 ~ 10:30	Tea/Coffee Break
10:30 ~ 12:30	Chair: Thomas Scheibel
10:30 ~ 11:00	The Assembling and Functionalization of Peptides and Peptide Amphiphiles Based on <i>Bombyx mori</i> Silk Protein Zhengzhong Shao (邵正中) , <i>Fudan University, China</i>
11:00 ~ 11:30	Silk Fibroin for Vascular Tissue Engineering Haifeng Liu (刘海峰) , <i>Beihang University, China</i>
11:30 ~ 12:00	Modified Silk Protein-based Direct Organ Printing Sourabh Ghosh , <i>Indian Institute of Technology, India</i>
12:00 ~ 12:30	Thai Silk: From Textile to Tissue Engineering and Delivery System Siriporn Damrongsakkul , <i>Chulalongkorn University, Thailand</i>
12:30 ~ 14:00	Lunch
14:00 ~ 15:30	Chair: Qiang Lv
14:00 ~ 14:30	Biomedical Prospects of Non-Mulberry Silk Protein Materials Subhas C. Kundu , <i>Indian Institute of Technology, India</i>
14:30 ~ 15:00	Bio-inspired Design, Fabrication and Tissue Engineering Application of Reinforced Silk Materials Yaopeng Zhang (张耀鹏) , <i>Donghua University, China</i>
15:00 ~ 15:30	Silk Fibroin Microspheres Used as Drug Delivery System Shenzhou Lu (卢神州) , <i>Soochow University, China</i>
15:30 ~ 16:00	Tea/Coffee Break
16:00 ~ 18:00	Chair: Subhas C. Kundu
16:00 ~ 16:30	Bioengineering of Silk Proteins for Various Applications Thomas Scheibel , <i>Universität Bayreuth, Germany</i>
16:30 ~ 17:00	Non-Mulberry Indian Silk: A Prospective Biomaterial for Tissue Engineering and Drug Delivery Biman B. Mandal , <i>Indian Institute of Technology, India</i>
17:00 ~ 17:30	Silk Scaffold for Tissue Engineered Ligament and Ligament-Bone Junction Hongbin Fan (范宏斌) , <i>The Fourth Military Medical University, China</i>
18:30 ~ 17:45	Closing Remarks: Fritz Vollrath
18:00 ~ 20:00	Dinner

DAY 4, Sunday, 12 Oct, 2014

08:30 ~ 18:00

Departure

Poster Presentations

1	3 Dimension Porous Silk Fibroin for Scaffolds and Drug Delivery Chuanbao Cao , <i>Beijing Institute of Technology, China</i>
2	Silk Dissolution and Regeneration at the Nanofibril Scale Baoqi Zuo , <i>Soochow University, China</i>
3	Synthetic Spider Silk Production at Utah State University Christian S. Iverson , <i>Commercial Enterprises, USA</i>
4	Production of Spider Silk Proteins by E. coli Dong Chen , <i>Synthetic Bio-manufacturing Institute, USA</i>
5	Use of NMR in Development of Biomaterials with Silk Tetsuo Asakura, Haruka Shimokawatoko and Shusei Iwamoto , <i>Tokyo University of Agriculture and Technology, Japan</i>
6	Superstable β -Sheet Structure of Spider and Worm Silk Se Youn Cho, Young Soo Yun, and Hyoung-Joon Jin , <i>Inha University, Korea</i>
7	Fabrication and Characterization of Crosslinked Silk Fibroin/ γ -PGA Composite Hydrogel Zongpu Xu, Liyang Shi, Liangjun Zhu , <i>Zhejiang University, China</i>
8	The Preparation of Silk Fibroin Microspheres by a New Self-Assembling Method Yuelin Pan, Haiping Zhang, Mingying Yang, Lianxia Deng , <i>Zhejiang University, China</i>
9	Hydroxyapatite Fabrication with Three-Dimensional Silk Fibroin Hydrogel Template Yashi Jin, Juming Yao , <i>Zhejiang Sci-Tech University, China</i>
10	Influence of Metal Ions on the Conformation Transition of Silk Sericin Wenhua Li, Juming Yao , <i>Zhejiang Sci-Tech University, China</i>
11	Doxorubicin Hydrochloride and Curcumin Loaded Silk Fibroin/Hydroxypropylcellulose Hydrogels for Localized Chemotherapy of Cancer Han Cao, Yuhong Yang, Zhengzhong Shao , <i>Fudan University, China</i>
12	Thixotropic Silk Nanofibril-based Hydrogel with ECM-like Structure via One-step Centrifugation Yingxin Liu, Zhengzhong Shao , <i>Fudan University, China</i>
13	Functional Supramolecular Materials Assembled from Silk Fibroin-based Peptide Amphiphiles Hui Guo, Zhengzhong Shao , <i>Fudan University, China</i>
14	Silk Nanofibril Based Nanocomposite Guangqiang Fang, Xin (Terry) Chen , <i>Fudan University, China</i>
15	Graphene/Silk Fibroin Based Carbon Nanocomposites for High Performance Supercapacitors Yaxian Wang, Zhengzhong Shao , <i>Fudan University, China</i>

16	The Stability of Silk Fibroin Nanoparticles Coated with Cationic Polymers in Biological Media Suhang Wang, Zhengzhong Shao, Fudan University, China
17	Understanding the relationship between structure and properties of <i>Antheraea pernyi</i> silk Yu Wang, David Porter, Zhengzhong Shao, Fudan University, China
18	Reinforcement and interphase of silk fibroin/graphene oxide composite fibers Chao Zhang, Jingru Shi, Tingting Fang, Huili Shao, Xuechao Hu, Yaopeng Zhang, Donghua University, China
19	Effect of relative humidity on the structures and properties of silk fibroin fiber spun using a microfluidic chip Qingfa Peng, Huili Shao, Xuechao Hu, Yaopeng Zhang, Donghua University, China

Important Information:

- ✦ Please note that no photography and video recording is allowed in the lecture hall and during poster session!
- ✦ Please switch your mobile phone off or to silent during lecture!

No Photography



No Video Recording



Mobile Phone Off or Silent



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