



Frontiers in Biological Sciences

**CBIS Conference
July 21–24, 2007
Tsinghua University, Beijing, CHINA
Meeting Program**

July 21, 2007

15:00 – 22:00 Registration

18:00 – 22:00 Social gathering at Peking University

July 22, 2007

8:00 – 8:05 Opening Introduction – Yigong Shi, President of CBIS

8:05 – 8:15 Welcome remarks by local host – Tsinghua University

8:15 – 9:00 Policy Keynote: Mr. Ji Zhou, Minister of Education

9:00 – 10:00 Keynote: Dr. Leroy Hood, MD, PhD
President, Institute for Systems Biology

10:00 – 10:20 Tea break

10:20 – 11:50 Mechanisms of Human Disease
Co-Chairs: Xuetao Cao and Xiao-Jiang Li

Xuetao Cao, Second Military Medical University
Dendritic cells and tumor immunology: from basic to clinics

Xiao-Jiang Li, Emory University
Polyglutamine expansion in neurodegeneration

Feng Shao, NIBS
Irreversible “dephosphorylation” of the host MAPKs by pathogenic phosphothreonine lyases

Kang Zhang, University of Utah
Molecular Genetics of Human Vision: from Monogenic Dystrophies to Complex Trait Diseases

11:50 – 12:50 Lunch break and poster viewing

13:00 – 15:00 Parallel Sessions

Session I: Immunity and stress response
Chair: Yibin Wang, UCLA

Session II: Developmental neurobiology and neural stem cells
Chair: Wen-cheng Xiong, Medical College of Georgia

- 15:00 – 15:20 Tea Break
- 15:20 – 16:50 Regulation of Gene Expression
Co-Chairs: Yang Shi and Xiangdong Fu
- Xiangdong Fu, UCSD
Genes and Genomes: An Integrated View of Gene Expression in the Context of the Nucleus
- Jian-Die Lin, University of Michigan
Control of Energy Metabolism Through PGC-1 Transcriptional Coactivators
- Bing Ren, UCSD
Mapping the genome's second code – a chip-by-chip approach
- Yang Shi, Harvard Medical School
Dynamic regulation of histone methylation by demethylases.
- 16:50 – 17:10 Snack Break
- 17:10 – 18:40 Frontiers in Structural Biology
Co-Chairs: Wei Yang and Zihe Rao
- Hong Li, PhD, Florida State University
Structure and Function of RNA Maturation Enzymes
- Hao Wu, Ph.D., Weill Medical College, Cornell University
Crystal Structure of the Oligomeric Caspase-activating PIDDosome Core Complex
- Zihe Rao, Nankai University
Structural proteomics of the SARS coronavirus: insights into the replication machinery
- Wenqing Xu, University of Washington
Structural and mechanistic studies of the Wnt signaling pathway
- Wei Yang, NIDDK, NIH
Snapshot and stop-action movie of DNA replication and repair
- 18:40–19:40 Dinner
- 19:40 – 20:30 Special presentation
TOPIC: *Publish Your High Impact Papers – Pain of Peer Review*
Dr. Vivian Siegel

(Director, Center for Science Communication, Vanderbilt University, Former Editor of *Cell*)

20:30 – 21:20 *Chinese Economy and Sino-US Relationship in the 21st Century*
Prof. Dai Lunzhang (著名国际经济学家)

July 23, 2007

8:20 – 8:30 Brief Remarks and introduction – Ding Xue

8:30 – 10:00 Frontiers in Neuroscience
Co-Chairs: Min Zhuo (Canada) and Yi Sun (UCLA)

Guo-li Ming, Johns Hopkins
Signaling mechanisms of nerve navigation

Guosong Liu, Tsinghua University
Synaptic organization on dendrite and its implication for learning and memory

Xu Zhang, Institute of Neurosciences
Dynamic distribution of G-protein-coupled receptors in sensory neurons

Yi Sun, UCLA
Modeling for Rett Syndrome using human ES cell-derived neurons

10:00 – 10:20 Tea break

10:20 – 12:20 Parallel Sessions

Session III: Cell cycle regulation and cancer
Chair: Yue Xiong, Univ of North Carolina – Chapel Hill

Session IV: Human diseases and therapeutics
Chair: Jia Li, National Center of Drug Screen, CAS

12:20 – 13:20 Lunch Break

13:30 – 15:00 Technology Development and Applications in Biology
Co-Chairs: Sunney Xie and Guo-liang Yu

Sunney Xie, Harvard University
Single Molecule Approach to Biology.

Kaiqin Lao, Applied Biosystems,
Whole miRNA/mRNA Profiling from Single Embryonic Stem Cells and Early Embryos

Jingyue Ju, Columbia University,
DNA sequencing

Xiuwen Liu, Epitomics, Inc.
Antibody and mass spectrum for biomarker discovery

Guochun Liao, Roche Pharmaceutical
Computational Genetics: Toward Understanding Our Drugs and Diseases

15:00 – 15:20 Tea Break

15:20 – 16:50 Stem Cell Biology and Regenerative Medicine
Co-Chairs: Ting Xie and Yu Zhang

Ting Xie, Stowers Institute
Intimate relationships between stem cells and the niche: lessons from *Drosophila*

Linheng Li, Stowers Institute
Molecularly distinguish osteoblastic and vascular niches

Hongjun Song, Johns Hopkins University
Mechanisms regulating adult mammalian neural stem cells and neurogenesis

Qi Zhou, Institute of Zoology, CAS
Customized stem cell line production by nuclear transfer

16:50–17:10 Snack Break

17:10 Presentation of CBIS Awards

18:40–19:40 Dinner

19:50–21:30 Panel Discussion
TOPICS: *Creating Synergy: Win-Win for Both the Returnees and the Overseas*

Moderator:
Gensheng Feng – Burham Institute

Panelists:
Yi Rao – Northwest Univ
Tian Xu – Yale Univ
Jiarui Wu – SIBS, CAS
Xiaochen Gu – PKU
Steve Yang – Pfizer

July 24, 2007

- 8:20 – 8:30 Brief Remarks and introduction – Weimin Zhong
- 8:30 – 10:00 Developmental Biology: Signaling in Plants and Animals
Co-chairs: Min Han (USA) and Jiayang Li (CHINA)
- Jiayang Li, Institute of Genetics and Dev Biology, CAS
Auxin polar transport regulates rice shoot gravitropism
- Min Han, Univ. of Colorado/Fudan Univ
No SUN, no flowers: nuclear positioning and chromosome dynamics during animal development
- Pan Duojia, Johns Hopkins University
Hippo signaling in organ size control
- Weihua Wu, China Agricultural University
Functions of GTPases in stomatal regulation
- Anming Meng, Tsinghua University
Dual functions of Axin in dorsoventral patterning of zebrafish embryo
- 10:00 – 10:20 Tea break
- 10:20 – 12:20 Parallel Sessions
- Session V: Developmental biology, chromatin structure and cancer
Chair: Zhi-chun Lai, Penn State University
- Session VI: Membrane signaling network – critical roles of ion channels
Chair: Hailin Zhang, Hebei Medical University
- 12:20 – 13:20 Lunch Break
- 13:30 – 15:00 Novel Approaches to Cancer Biology
Co-chairs: Duanqing Pei and Xiaofan Wang
- Xiao-Fan Wang, Duke University
Extracellular proteins and tumor metastasis
- Tian Xu, Yale Univ./Fudan Univ.
Deciphering Genetic Basis of Tumor Growth and Progression.
- Dihua Yu, MD Anderson Cancer Center
New insights on molecular basis of cancer metastasis, recurrence, and therapeutic resistance
- Yibin Kang, Princeton University
Genomic Analysis of Breast Cancer Metastasis

Duanqing Pei, Guangzhou Institute of Biomedicine and Health, CAS
Human Lung Cancer Stem Cells: Implication for Therapeutic Development

15:00 – 15:20 Tea Break

15:20 – 16:50 Infection and Immunity
Co-Chairs: Bing Sun and Lieping Cheng

Sun Bing, Institute Pasteur–Shanghai, CAS
A new molecule that is negative regulator on NF- κ B signal pathway in DC

Hongkuei Deng, Peking University
Development of Novel Mouse Models for HIV and HCV infection

Hongbing Su, Wuhan University
Molecular mechanisms of cellular antiviral response

Genhong Cheng, UCLA
Innate immune gene programs against bacterial and viral infections

Lishan Sun, UNC–Chapel Hill
Modeling immuno–pathogenesis and immuno–therapy of chronic human viral infections.

16:50–17:10 Snack Break

17:10–17:20 Ray Wu Award

17:20 – 18:20 Closing Lecture: Prof. Zhu Chen, Chinese Academy of Sciences

18:30 – 20:30 Banquet