

Microfluidics and Quantitative Biology

Beijing, October 16-18, 2013

(Tentative)

Venue: 101 Lecture Hall, JinguangLifeSciencesBuilding,
School of Life Sciences, PekingUniversity

(By the east entrance of PekingUniversity, near the intersection of Chengfu Road and
North Zhongguancun Street)

Homepage: <http://cqb.pku.edu.cn/2013meeting/>

Day 1 (Oct. 16, 2013)

| Morning Session Chair: Luhua LAI | | |
|--|-----------------------------------|--|
| Time | People | Activities/Title |
| 9:00-9:10 | Chao TANG | Opening Remarks |
| 9:10-10:00 | Robert H. AUSTIN | The Demons Ratchet: from Dark DNA to Dark Matter |
| 10:00-10:30 | Coffee Break | |
| 10:30-11:10 | Chunxiang LUO | Quantitative Studies Of Dynamic Cellular Response In Microfluidic System |
| 11:10-12:00 | YanyiHUANG | Microfluidics Facilitated Genome Sequencing for Limited Number of Cells |
| 12:00-14:00 | Lunch & Poster Session | |
| Afternoon Session Chair: Robert H. AUSTIN | | |
| 14:00-14:50 | Albert VAN DEN BERG | Labs, Cells and Organs on Chip |
| 14:50-15:40 | Xingyu, JIANG | Using Microfluidics to Understand the Mechanical Microenvironment of the Blood Vessel |
| 15:40-16:00 | Coffee Break | |
| 16:00-16:50 | Chunyang XIONG | Quantitative Approaches in Cell Mechanics and Mechanobiology |
| 16:50-17:40 | Yong CHEN | Synthetic Cellular Microenvironment: Artificial Extracellular Matrix and Microfluidics |
| 18:30 | Welcome Dinner | |

Day 2 (Oct. 17, 2013)

| Morning Session Chair: Yong CHEN | | |
|---|------------------------|---|
| Time | People | Activities |
| 8:50-9:40 | Jianhua QIN | Microfluidics Platform for Quantitative Cancer Biology |
| 9:40-10:30 | Mingming WU | Microfluidics for Cancer Cell Chemotaxis |
| 10:30-10:50 | Coffee Break | |
| 10:50-11:40 | Luke P. LEE | Biophotonic Gene Circuits and Cellular BASICS |
| 11:40-12:10 | Hao LI | Single Cell Analysis of Aging Using a Novel Microfluidic Device |
| 12:10-14:00 | Lunch & Poster Session | |
| Afternoon Session Chair: Hao LI | | |
| 14:00-14:30 | Luhua LAI | Discovery of Novel Chemoeffectors Using Microfluidic Devices and Computational Screen |
| 14:30-15:20 | William RYU | A Study of <i>C. elegans</i> Behavior and Memory using Microdroplet Arrays |
| 15:20-15:40 | Coffee Break | |
| 15:40-16:30 | Francis LIN | Immune Cell Migration in Complex Guiding Environments: An Example of Coordinated Guidance |
| 16:30-17:00 | Liyu LIU | Quantifying Cancer Cell Collective Behaviors in Microfluidic Governed Landscapes |
| 17:00-17:30 | Yuhai TU | Quantitative Understanding of Bacterial Chemotaxis from Microfluidic Experiments |
| 18:30 | Dinner | |

Day 3 (Oct. 18, 2013)

| Morning Session Chair: Yuhai TU | | |
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| Time | People | Activities |
| 9:00-9:50 | David A. WEITZ | Drop-Based Microfluidics: Biology One |

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| | | Picoliterat a Time |
| 9:50-10:20 | Wenbin DU | SlipChip and Droplet Array for Quantitative Separation and Analysis of Bacterial Cells |
| 10:20-10:50 | Coffee Break | |
| 10:50-11:20 | Ping WEI | Using Bacterial Virulence Protein to Modulate Frequency Dependent Osmo-Response in the Budding Yeast |
| 11:20-11:50 | Chao TANG | Using Microfluidics to Study Cellular Decision-making |
| 11:50-12:00 | Yuhai TU | Closing Remarks |
| 12:00-14:00 | Lunch | |