

# SynBio YSF 2016 AGENDA


WEDNESDAY, JULY 13, 2016

北京大学中关村新园酒店一号楼一层大堂，  
中关村北大街126号

5:00--  
7:00PM

Arriving and Registration

## SPONSERS

 Quantitative Biology

**eppendorf**

**MERCK**



**PerkinElmer**<sup>®</sup>  
*For the Better*



青兰生物  
QINGLAN BIOTECH



北京大学定量生物学中心  
CENTER FOR QUANTITATIVE BIOLOGY



中国科学院微生物研究所  
Institute of Microbiology, Chinese Academy of Sciences



# THURSDAY, JULY 14, 2016

北京大学中关新园酒店一号楼二层科学报告厅,  
中关村北大街126号

**8:00AM** Registration

**8:50AM** Opening Remarks

## Section 1 Moderator: 魏平, 北京大学

**9:00AM** 合成生物学驱动天然产物创新的发展方向  
邓子新, 上海交通大学

**9:30AM** Genetically Encoding New Bioreactivity  
王磊, University of California, San Francisco

**10:00AM** Coffee Break

## Section 2 Moderator: 戴俊彪, 清华大学/元磊, Stanford University

**10:20AM** Decaging Chemistry for Kinase Activation in Living Systems  
陈鹏, 北京大学

**10:40AM** Rationally designed fluorogenic protease reporters visualize spatiotemporal dynamics of apoptosis in vivo  
Xiaokun Shu, University of California, San Francisco

**11:00AM** Development of Biosensors for Yeast Synthetic Biology  
张杰/Jie Zhang, Technical University of Denmark

**11:20AM** Synthetic cell-based sensors with programmed selectivity, sensitivity and dynamic range  
Baojun Wang, University of Edinburgh

**11:40AM** Protein engineering based on amino acids interaction  
江会锋, 中国科学院天津工业生物技术研究所

**12:00PM** Lunch

## Section 3 Moderator: 刘陈立, 中国科学院深圳先进技术研究院/张杰, Technical University of Denmark

**1:20PM** Design and synthesize a genome  
戴俊彪, 清华大学

**1:40PM** Genetic circuit design with CRISPR/dCas system  
张数一, Massachusetts Institute of Technology/Voight Lab

**2:00PM** Genome editing for disease modeling and gene therapy  
李大力, 华东师范大学

**2:20PM** Aligning and Repairing Broken Chromosomes  
齐志, 北京大学

**2:40PM** Coffee Break

## Section 4 Moderator: 王宝俊, University of Edinburgh/ 姜春波, 中国科学院微生物研究所

**3:00PM** Synthetic Biology Approaches toward Protein Materials  
Fei Sun, Hong Kong University of Science and Technology

**3:20PM** Make the Impossible Possible: Insects Digest Plastic  
杨军, 北京航空航天大学

**3:40PM** Probing neuronal receptors through the genetic code expansion  
Shixin Ye-Lehmann, École Normale Supérieure

**4:00PM** Coffee Break & Poster Presentation

**6:00PM** Forum Banquet  
中关新园一号楼时光咖啡厅



# FRIDAY, JULY 15, 2016

北京大学中关新园酒店一号楼二层科学报告厅,  
中关村北大街126号

## Section 1 Moderator: 谢震, 清华大学

- 9:10AM** **Programming bacteria in time and space**  
Lingchong You, Duke University
- 9:40AM** **Spatiotemporal control of stem cell niche and cancer metastasis**  
Xiling Shen, Duke University
- 10:00AM** **Coffee Break**

## Section 2 Moderator: 王勇, 中科院植物生理生态研究所/ 刘天罡, 武汉大学

- 10:20AM** **Reprogramming biological functionalities for autonomous microbial factories and therapeutics**  
Matthew Chang, National University of Singapore
- 10:40AM** **Dynamic control of gene regulatory logic by seemingly redundant transcription factors**  
郝楠/Nan Hao, University of California, San Diego
- 11:00AM** **Design principles of dynamic gene regulation: Time-based regulation**  
林一瀚, 北京大学/California Institute of Technology
- 11:20AM** **Mapping of genetic interaction network in mammalian cells**  
谢震, 清华大学
- 11:40AM** **In vitro reconstitution guide for targeted synthetic metabolism of the high efficiency microbial cell factory**  
刘天罡, 武汉大学
- 12:00PM** **Lunch**

## Section 3 Moderator: 张福中, Washington University in St. Louis/ 霍毅欣, 北京理工大学

- 1:20PM** **Synthetic regulatory systems for metabolic engineering**  
张福中/Fuzhong Zhang, Washington University in St. Louis
- 1:40PM** **Collective behaviour in confined bacterial suspensions**  
吴艺林/Yilin Wu, 香港中文大学
- 2:00PM** **Coupling of chemokinesis and chemotaxis studied by a model bacterial motile system**  
袁军华, 中国科学技术大学
- 2:20PM** **Collective oscillations within a microbial community**  
刘景涛, University of California, San Diego
- 2:30PM** **RxnFinder: Data-driven One-stop Microbial Cell Factory Design Platform**  
胡黔楠, 中国科学院天津工业生物技术研究所
- 2:50PM** **Coffee Break**

## Section 4 Moderator: 叶海峰, 上海师范大学/江会峰, 中科院天津工业生物技术研究所

- 3:00PM** **Exploring Conventional and Nonconventional Yeasts for Producing Bioplastic and Pharmaceutical Precursors via Shikimate Pathway**  
邵增怡/Zengyi Shao, Iowa State University
- 3:20PM** **High-level 3-hydroxypropionate production via malonyl-CoA pathway**  
赵广, 中国科学院青岛生物能源与过程研究所
- 3:40PM** **Conversion of Cellulosic Hydrolysates to Natural Products**  
霍毅欣, 北京理工大学
- 4:10PM** **Synthetic biology for natural products development: from bacteria to plant**  
王勇, 上海生命科学研究院
- 4:50PM** **Poster Award**
- 5:00PM** **Closing Remarks**