



**Serial Lectures of Tsinghua Forum on
Industrial Biocatalysis**

**Tsinghua University & The University of Tokyo
Forum on Health Biotechnology and Engineering**

Organizer: MOE Key Lab of Industrial Biocatalysis, Tsinghua University



Tsinghua University & The University of Tokyo

Forum on Health Biotechnology and Engineering

Place: Meeting room 201, Yingshi Building, Tsinghua

Time: July 10th-11th, 2019

July 10 th	
Time	Topic
	Opening Remarks
13:00-13:20	Prof. Jinsong Zhao , Dean, Department of Chemical Engineering, Tsinghua University
13:20-13:30	Group photo
<i>Session I</i>	Chair: Prof. Xin-Hui Xing , Tsinghua University
	Lecture
13:30-13:50	Prof. Hitoshi Tabata , The University of Tokyo
	Near IR Plasmonics for Bio-Medical Application
13:50-14:10	Prof. Huimin Yu , Tsinghua University
	Superior <i>Rhodococcus</i> Cell Biocatalyst: Fundamentals and Applications
14:10-14:30	Associate Prof. Masahiro Kawahara , The University of Tokyo
	Synthetic Engineering of Signalobodies for Versatile Regulation of Cellular Fates
14:30-14:50	Associate Prof. Jun Ge , Tsinghua University
	Enzyme-metal Hybrid Catalysts
14:50-15:10	Associate Prof. Masaki Sekino , The University of Tokyo
	Flexible and Wearable Electronics for Biomedical Applications
15:10-15:30	Coffee Break

Time	Topic
Session II	Chair: Prof. Hitoshi Tabata, The University of Tokyo
	Lecture
15:30-15:50	Associate Prof. Sen Song, Tsinghua University Application of Brain-like Artificial Intelligence in Medical Treatment
15:50-16:10	Lecturer Masaki Nishikawa, The University of Tokyo Structural Refinement of Kidney Organoids
16:10-16:30	PhD student Yikang Zhou, Tsinghua University MiYA, an efficient machine-learning workflow in conjunction with the YeastFab assembly strategy for combinatorial optimization of heterologous metabolic pathways in <i>Saccharomyces cerevisiae</i>
16:30-16:50	PhD student Jian Gu, The University of Tokyo Development of Tissue Circulation Monitoring Algorithm and System Using Flexible Probe
16:50-17:10	PhD student Boyu Zhang, Tsinghua University Design and Applications of Multi-DoF Soft Robotic Actuators
17:10-17:30	Master student Yukinori Ikeda, The University of Tokyo In Vitro Microvessel Model for the Cancer Research
17:30-18:00	Prof. Xin-Hui Xing, Tsinghua University Introduction to Biopharmaceutical and Health Engineering, Tsinghua Shenzhen International Graduate School (Tsinghua SIGS)
18:00-20:30	Dinner Party

July 11 th	
Session III	Chair: Prof. Hongen Liao, Tsinghua University
	Lecture
8:00-8:20	Prof. Yasuyuki Sakai, The University of Tokyo Tissue Engineering for Physiological Cell-based Assays
8:20-8:40	Associate Prof. Chong Zhang, Tsinghua University Precisely Coordinated Transcription-translation Dynamics Modularly Tune Bacterial Indole Signaling
8:40-9:00	Associate Prof. Yukiko Matsunaga, The University of Tokyo Microvessel Chip for Evaluation of Vascular Function
9:00-9:20	Associate Prof. Peng Liu, Tsinghua University High-Throughput Superhydrophobic Microwell Array for Phenotypic and Genotypic Cell Assays
9:20-9:40	Associate Prof. Hirotaka Ejima, The University of Tokyo Metal-polyphenol Complexation for Bio- and Nano-interface Engineering
9:40-10:00	Associate Prof. Jianwen Luo, Tsinghua University Ultrasound Carotid Elastography for Identification of Vulnerable Atherosclerotic Plaques
10:00-10:20	Coffee Break
Session IV	Chair: Associate Prof. Jun Ge, Tsinghua University
10:20-10:40	PhD student Longfei Ma, Tsinghua University Augmented Reality-guided Knee Arthroscopic Surgery using Self-positioning Technology
10:40-11:00	PhD student Stephany Mai Nishikawa, The University of Tokyo Brain on a Chip: Biomimetic Spike Timing Based Stimulation for Neuronal Culture
11:00-11:20	Master student Yuki Hishikawa, Tsinghua University & Tokyo Institute of Technology Molecular Dynamics Simulation of Gold Clusters at 2-fold Interface in Designed Ferritin Cage

11:20-11:40	Master student Karn Chansorn, The University of Tokyo
	Bioprinting-based Vascularized Pancreatic Tissue
	Closing Remarks
11:40-12:00	Prof. Yasuyuki Sakai, The University of Tokyo
12:00	Brief Lunch

Note: Each presenter includes 18min Presentation+2min Q&A

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Organizers: MOE Key Lab of Industrial Biocatalysis, Tsinghua University

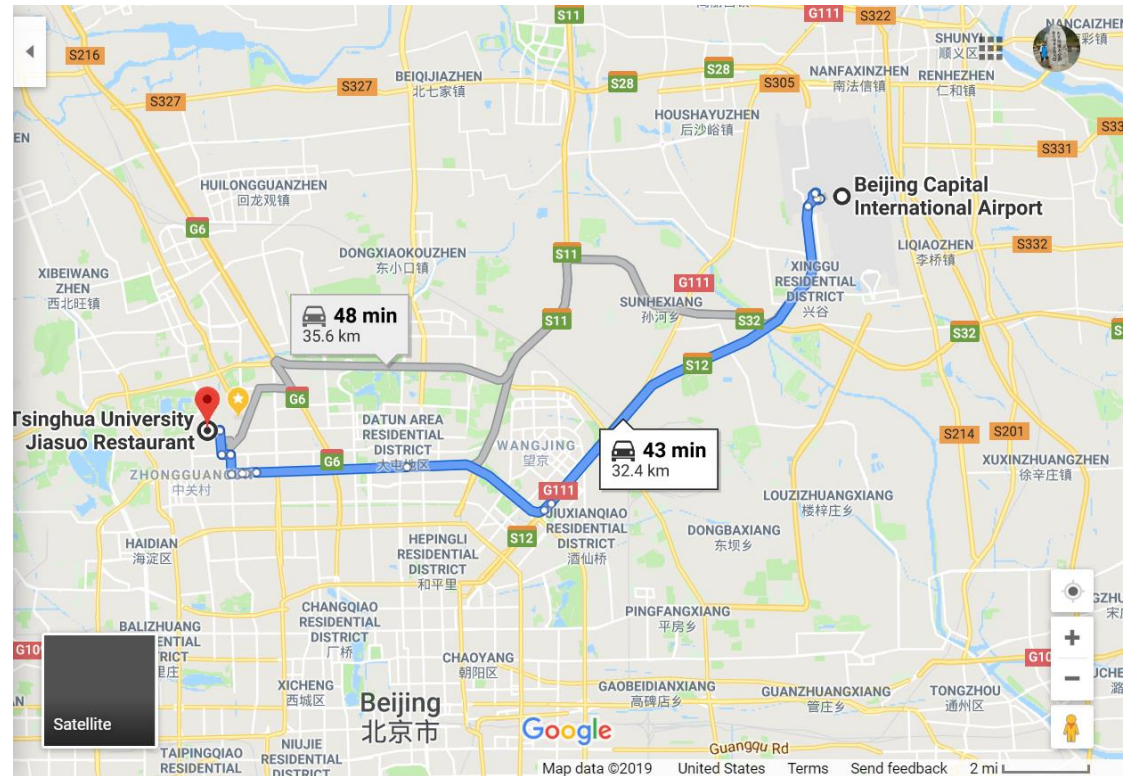
Hotel:

Tsinghua University Jiasuo Restaurant

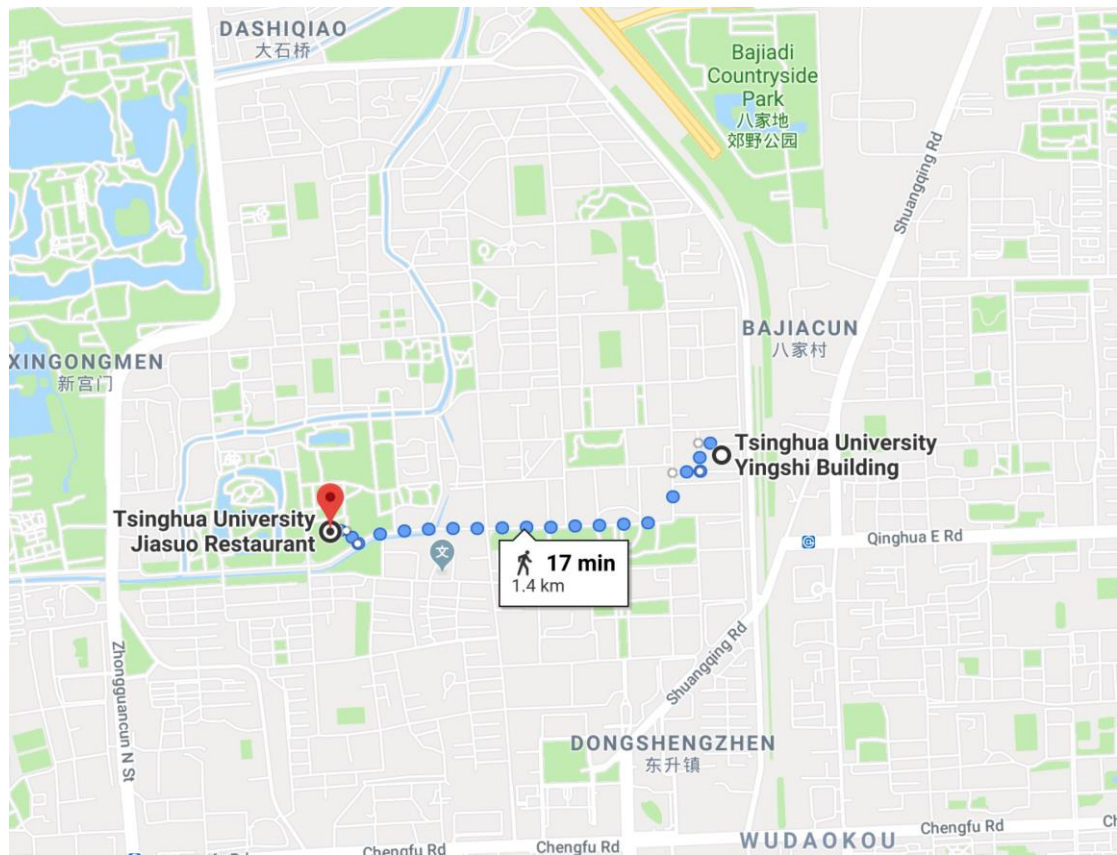
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Address: Qinghua W Rd, Haidian Qu, Beijing shi, China

Transportation between the airport to hotel:



Transportation between the hotel to meeting place:



The shuttle bus is provided:

July 10th, 21:30, from Yingshi Building to Jiasuo Restaurant;

July 11th, 07:30, from Jiasuo Restaurant to Yingshi Building.