2019 International Conference on Metabolic Sciences

Systematic Metabolic Sciences: Driving Force for Human Future

Hotel Golden Tulip Rainbow, 2000 West Yan'an Road, Shanghai *http://www.icms-sjtu.org*

2019/11/20	
Registration (Lobby, 1F)	
2019/11/21	
Opening Ceremony (Tulip Ballroom, 2F) Chair: Linquan Bai, *Shanghai Jiao Tong University*	
08:30-08:40	**Opening Address**
08:40-08:50	**Signing Ceremony of MoU for Educational and Scientific Cooperation between SJTU and ICL**
08:50-09:00	**Ceremony of SynBioFoundry (SJTU) Joining Global Biofoundries Alliance**
09:00-09:30	**Zixin Deng, *Shanghai Jiao Tong University*** Intelligent Bio-Design for the Innovative Bio-Industrialization
09:30-09:50	**Group Photo**
Plenary Session (Tulip Ballroom, 2F) Chairs: Guoping Zhao, *Shanghai Institute of Plant Physiology and Ecology, CAS* Ningyi Zhou, *Shanghai Jiao Tong University*	
09:50-10:30	**Paul Freemont, *Imperial College London, UK*** In vitro Synthetic Biology - Using Cell Free Extracts to Prototype Parts Biosynthetic Pathways and Rapidly Access Xenobiotics in a Test Tube
10:30-11:10	**Huimin Zhao, *University of Illinois at Urbana-Champaign, USA*** Discovery and Engineering of Novel Natural Products via Synthetic Biology
11:10-11:50	**Liping Zhao, *Shanghai Jiao Tong University*** Foundation Species and Essential Guilds: Ecological Understanding of the Causative Role of Gut Microbiota in Human Health

	Session I **Fundamental Metabolic Sciences** **(Tulip Ballroom A, 2F)** Chairs: Jiemin Weng, *East China Normal University* Xiang Xiao, *Shanghai Jiao Tong University*	**Session II** **Drug Discovery and Healthcare** **(Tulip Ballroom B, 2F)** Chairs: Yong Wang, *Shanghai Institutes for Biological Sciences, CAS* Jiahai Zhou, *Shanghai Institute of Organic Chemistry, CAS*
13:15-13:50 **Keynote Lecture**	**Haruyuki Atomi,** ***Kyoto University, Japan*** The Unique Metabolism in Archaea	**Ming Lei,** ***Ninth People's Hospital, Shanghai Jiao Tong University*** Cancer-testis Antigen SAGE1 Hijacks the Integrator Complex to Promote Tumorigenesis
13:50-14:15	**Qiang Wu,** ***Shanghai Jiao Tong University*** CRISPR 3D Genome	**Zichun Hua,** ***Nanjing University*** Bacteria as Tumor-targeting Cancer Therapy Agent
14:15-14:40	**Hiroshi Shimizu,** ***Osaka University, Japan*** Integration of *in Silico* Genetic Modification Design and Adaptive Laboratory Evolution to Increase in Productivity of Target Compounds	**Taifo Mahmud,** ***Oregon State University, USA*** Synthetic Biology and Metabolic Engineering of Natural Sunscreens
14:40-15:05	**Chen Yang,** ***Shanghai Institute of Plant Physiology and Ecology, CAS*** Stable Isotope Tracing and Metabolic Flux Analysis	**Xudong Qu,** ***Shanghai Jiao Tong University*** Biosynthesis of Plant Tetrahydroisoquinoline Alkaloids through an Imine Reductase Route
15:05-15:20	**Coffee Break**	
15:20-15:55 **Keynote Lecture**	**Jiahai Zhou,** ***Shanghai Institute of Organic Chemistry, CAS*** Structural Insights into Natural Product Biosynthesis	**Chenli Liu,** ***Shenzhen Institutes of Advanced Technology, CAS*** Quantitative Engineering Biology: Build-to-Learn-to-Build
15:55-16:20	**Yuzhong Zhang,** ***Shandong University*** Molecular Insight into Bacterial Metabolism of Oceanic Dimethylsulfoniopropionate (DMSP)	**Haifeng Ye,** ***East China Normal University*** Chinese Green Tea Meets Synthetic Biology
16:20-16:45	**Tao Dong,** ***Shanghai Jiao Tong University*** Engineering a Microbial Weapon for Delivery of Cargo Proteins	**Jianhua Ju,** ***South China Sea Institute of Oceanology, CAS*** Biosynthesis and Resistance of Cytorhodin from *Streptomyces* sp. SCSIO166
17:00-18:00	**Poster Session (Magnolia Room 白玉兰厅, 2F) / Sponsor Exhibition (Creativity Room 创意工坊, 2F)**	

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	Session III **Metabolic Engineering and Synthetic Biology** **(Tulip Ballroom A, 2F)** Chairs: Weihong Jiang, *Shanghai Institute of Plant Physiology and Ecology, CAS* Xiaoxia Xia, *Shanghai Jiao Tong University*	**Session IV** **Biomanufacture and Bioprocessing** **(Tulip Ballroom B, 2F)** Chairs: Jianjiang Zhong, *Shanghai Jiao Tong University* Shuangjun Lin, *Shanghai Jiao Tong University*
08:30-09:05 **Keynote Lecture**	**Patrick Yizhi Cai, *University of Manchester, Manchester Institute of Biotechnology, UK*** Rapid Pathway Prototyping and Engineering in Yeast with YeastFab and SCRaMbLE System	**Johan Thevelein, *Leuven University, Belgium*** Development of Superior Industrial Yeast Strains for First - and Second-generation Bioethanol and Bio-based Chemicals Production
09:05-09:30	**Qi Zhang, *Fudan University*** Discovery and Biosynthesis of Ribosomally Synthesized and Posttranslationally Modified Peptides (RiPPs)	**Jianhe Xu, *East China University of Science and Technology*** Engineering Enzymes for Biomanufacturing
09:30-09:55	**Min Jiang, *Nanjing Technology University*** Bioconversion of Methanol into Organic Acid Using Model Microbes	**Ping Xu, *Shanghai Jiao Tong University*** Molecular Microbiology: Enzymes and Value-added Chemicals via Microbial Catabolism of EnvironmEntal Molecules
09:55-10:10	**Coffee Break**	
10:10-10:45 **Keynote Lecture**	**Tilmann Weber, *Novo Nordisk Foundation Center for Biosustainability, DTU, Denmark*** Integration of Informatics and Metabolic Engineering for the Discovery and Analysis of Natural Products	**Lixin Zhang, *East China University of Science and Technology*** Harnessing Cellular Triacylglycerol Pool for Titer Improvement of Polyketides in *Streptomyces*
10:45-11:10	**Chun Li, *Beijing Institute of Technology*** Licorice Triterpenoids Synthesized by *Saccharomyces cerevisiae*	**Qipeng Yuan, *Beijing University of Chemical Technology*** Strategies for Construction of Efficient Microbial Cell Factories: Enzyme, Pathway and Metabolic Network
11:10-11:35	**Chao Zhong, *Shanghai Technology University*** Engineering Living Functional Materials with Synthetic Biology	**Yong Tao, *Institute of Microbiology, CAS*** Harassing Central Carbon Metabolism for Goods
11:35-12:00	**Shengying Li, *Shandong University*** Multi-engineering of Cytochrome P450 Enzymes for Better Biocatalytic Parts in Synthetic Biology	**Fengwu Bai, *Shanghai Jiao Tong University*** Self-flocculation of *Zymomonas mobilis* and its Potential Applications for Biorefinery

Plenary Session (Tulip Ballroom, 2F) Chairs: Yan Feng, *Shanghai Jiao Tong University* Tilmann Weber, *Novo Nordisk Foundation Center for Biosustainability, DTU, Denmark*	
14:00-14:40	**Ikuro Abe, *Tokyo University, Japan*** Engineered Biosynthesis of Medicinal Natural Products
14:40-15:20	**Tiangang Liu, *Wuhan University*** From Farnesene to Vitamin E to Lycopene and Beyond
15:20-15:40	**Coffee Break**
15:40-16:20	**Gongli Tang, *Shanghai Institute of Organic Chemistry, CAS*** Extracellular Biology in Tetrahydroisoquinoline Antibiotics Biosynthesis
16:20-17:00	**Renxiang Tan, *Nanjing University*** Symbionts, a Promising Source of New Bioactive Compounds and Biocatalysts
17:00-17:30	**Closing Ceremony & Poster Award** Chair: Linquan Bai, *Shanghai Jiao Tong University*