

1st China-Japan Joint Symposium on Natural Product Biosynthesis

October 2 & 3, 2017, Hotel Nikko Shanghai, Shanghai

Supported by Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan

October 2, Monday

9:00 - 9:05 Opening Remark

阿部郁朗 (東京大学)

Ikuro Abe (The University of Tokyo)

Chair: 阿部郁朗 (東京大学)

Ikuro Abe (The University of Tokyo)

9:05 - 9:35 譚仁祥 (南京大学、南京中醫藥大學)

Ren Xiang Tan (Nanjing University, Nanjing University of Chinese Medicine)

“Mycosynthesis of Bioactive Organic Molecules”

9:35 - 9:50 浅井禎吾 (東京大学)

Teigo Asai (The University of Tokyo)

“Non-Enzymatic Polyketide Dimerization Reactions Generating Structurally Diverse *pseudo*-Natural Products”

9:50 - 10:05 胡丹 (暨南大学)

Dan Hu (Jinan University)

“Characterization of the Biosynthesis of Fusidane-type Antibiotics”

10:05 - 10:35 渡辺賢二 (静岡県立大学)

Kenji Watanabe (University of Shizuoka)

“Disfavored *exo*-Adduct Formation by a Modified Octalin-forming Diels–Alderase”

10:35- 10:50 Coffee Break

Chair: 鞠建華 (中国科学院·南海海洋研究所)

Jianhua Ju (South China Sea Institute of Oceanology, CAS)

10:50 - 11:20 唐功利 (中国科学院·上海有機化学研究所)

Gong-Li Tang (Shanghai Institute of Organic Chemistry, CAS)

“Biosynthesis of Aromatic Polyketide Trioxacarcin”

- 11:20 - 11:35 脇本敏幸 (北海道大学)
Toshiyuki Wakimoto (Hokkaido University)
“Marine Sponge-derived Metagenomes/Uncultured Bacteria - a Rich Source of Novel Natural Product Biosynthetic Genes”
- 11:35 - 11:50 胡 友財 (中国医科学院 · 北京协和医学院)
Youcai Hu (Institute of Materia Medica / Peking Union Medical College)
“Biosynthesis of PP2A Inhibitor Rubratoxin A”
- 11:50 - 12:20 大利 徹 (北海道大学)
Tohru Dairi (Hokkaido University)
“New Enzymes for Peptide Biosynthesis in Microorganisms”
- 12:20- 14:00 Lunch
- Chair: 大利 徹 (北海道大学)
Tohru Dairi (Hokkaido University)
- 14:00 - 14:30 鞠 建華 (中国科学院 · 南海海洋研究所)
Jianhua Ju (South China Sea Institute of Oceanology, CAS)
“Anti-infective and Anti-tumor Natural Products Discovery and Biosynthesis from Marine Actinomycetes”
- 14:30 - 14:45 林 曉青 (台湾中央研究院)
Hsiao-Ching Lin (Academia Sinica, Taiwan)
“Elucidation of the Biosynthetic Pathway of Okaramine Indole Alkaloids”
- 14:45 - 15:15 刘 天罡 (武汉大学)
Tiangang Liu (Wuhan University)
“Metabolic Engineering Promotes Genome Mining of Polyketides and Terpenoids”
- 15:15 – 15:45 阿部郁朗 (東京大学)
Ikuro Abe (The University of Tokyo)
“Unusual Enzyme Reactions in Fungal Meroterpenoid Biosynthesis”
- 15:45- 16:00 Coffee Break

Chair: 刘 文 (中国科学院·上海有机化学研究所)

Wen Liu (Shanghai Institute of Organic Chemistry, CAS)

16:00 - 16:30 林 双君 (上海交通大学)

Shuangjun Lin (Shanghai Jiao Tong University)

“Biosynthesis of 2-Oxindole Motif of Natural Products”

16:30 - 16:45 高田健太郎 (東京大学)

Kentaro Takada (The University of Tokyo)

“Structures and a Function of Surugamides Isolated from Streptomycete”

16:45 – 17:00 杜 艺岭 (浙江大学)

Yiling Du (Zhejiang University)

“Discovery of a Nitrogen-Nitrogen Bond Forming Enzyme”

17:00 - 17:30 葛山智久 (東京大学)

Tomohisa Kuzuyama (The University of Tokyo)

“Understanding Biochemical Mechanism in Natural Product Biosynthesis”

17:30 – 18:00 唐 奕 (University of California Los Angeles)

Yi Tang (University of California Los Angeles)

“Identification of Novel Diels Alderases from Fungal Biosynthetic Pathways”

18:00 – 20:00 Mixer

October 3, Tuesday

Chair: 葛山智久 (東京大学)

Tomohisa Kuzuyama (The University of Tokyo)

9:00 - 9:30 刘 文 (中国科学院·上海有機化学研究所)
Wen Liu (Shanghai Institute of Organic Chemistry, CAS)
“N-Terminal Nucleophile-Hydrolase Activity of a γ -Glutamyltranspeptidase Homolog for C-C Bond Cleavage”

9:30 - 9:45 工藤史貴 (東京工業大学)
Fumitaka Kudo (Tokyo Institute of Technology)
“Biosynthesis of Carbocyclic Nucleoside Aristeromycin”

9:45 - 10:00 瞿 旭東 (武漢大学)
Xudong Qu (Wuhan University)
“Piperidine Formation in Polyketide-Derived Indolizidines Involves a Thioester Reduction, Transamination, and Unusual Imine Reduction Process”

10:00 - 10:15 馬 明 (北京大学)
Ming Ma (Peking University)
“PCR-guided Discovery of Unusual Angucyclinones”

10:15 - 10:45 大西康夫 (東京大学)
Yasuo Ohnishi (The University of Tokyo)
“Polyene Formation by Type II Polyketide Synthase”

10:45- 11:00 Coffee Break

Chair: 林 双君 (上海交通大学)

Shuangjun Lin (Shanghai Jiao Tong University)

11:00 - 11:30 刘 吉开 (中南民族大学)
Ji-Kai Liu (South-Central University for Nationalities)
“Biosynthetic Pathway and a Monooxygenase for Vibralactone and Related Derivatives from the Mushroom *Boreostereum vibrans*”

11:30 - 11:45 森田洋行 (富山大学)
Hiroyuki Morita (University of Toyama)
“Combinatorial Biosynthesis of an Unnatural Novel Aloeson Analog by Exploiting Type III Polyketide Synthase and Olivetolic Acid Cyclase”

- 11:45 - 12:15 張 勇慧 (華中科技大學)
Yonghui Zhang (Huazhong University of Science and Technology)
“Bioactive Secondary Metabolites from Fungi”
- 12:15- 14:00 Lunch
- Chair: 刘 天罡 (武漢大學)
Tiangang Liu (Wuhan University)
- 14:00 - 14:30 尾仲宏康 (東京大學)
Hiroyasu Onaka (The University of Tokyo)
“RiPPs Biosynthesis by *in vitro* Translation-coupled Post-translational Modification”
- 14:30 – 14:45 後藤祐樹 (東京大學)
Yuki Goto (The University of Tokyo)
“*In vitro* Biosynthesis of Artificial Peptides with Diverse Modified Backbones”
- 14:45 – 15:00 史 社坡 (北京中醫藥大學)
Shepo Shi (Beijing University of Chinese Medicine)
“Biosynthesis of 2-(2-Phenylethyl)chromones in Agarwoods”
- 15:00 - 15:15 荒川賢治 (広島大學)
Kenji Arakawa (Hiroshima University)
“Structure, Activity and Biosynthetic Investigation of Butenolide-type Signaling Molecules SRBs that Induce Antibiotic Production in *Streptomyces rochei*”
- 15:15 - 15:30 楊 小龙 (重慶大學)
Xiaolong Yang (Chongqing University)
“Several Strategies for Microbial Natural Product Discovery and Their Biosynthesis”
- 15:30- 15:45 Coffee Break

Chair: 渡辺賢二 (静岡県立大学)

Kenji Watanabe (University of Shizuoka)

15:45 - 16:15 新家一男 (産業技術総合研究所)

Kazuo Shinya (AIST)

“Cloning and Heterologous Expression of Bacterial Secondary Metabolites Produced in Actinomycetes and Pseudomonas Hosts”

16:15 - 16:30 黄 胜雄 (中国科学院・昆明植物研究所)

Shengxiong Huang (Kunming Institute of Botany, CAS)

“Structurally Diversified Diterpenoids from *Europhobia dracunculoides* and Their Proposed Biosynthetic Pathways”

16:30 - 16:45 尹 文兵 (中国科学院・微生物研究所)

Wen-Bing Yin (Institute of Microbiology, CAS)

“Asperphenamate Biosynthesis Reveals a Novel Two-module NRPS System to Synthesize Amino Acid Esters in Fungi”

16:45 – 17:00 梅野太輔 (千葉大学)

Daisuke Umeno (Chiba University)

“Laboratory Evolution of Triterpenoid Biosynthetic Pathways”

17:00 – 17:15 游 松 (瀋陽薬科大学)

Song You (Shenyang Pharmaceutical University)

“A “Mirror-image” Sesquiterpenoid Library Involved Curdione Stereoisomers by Chemical and Biological Approaches”

17:15 - 17:30 濱野吉十 (福井県立大学)

Yoshimitsu Hamano (Fukui Prefectural University)

“Amide-bond Forming Enzymes in the Biosynthesis of Streptothricin Group Antibiotics”

17:30 – 18:00 及川英秋 (北海道大学)

Hideaki Oikawa (Hokkaido University)

“Construction of Focused Library of Structurally Related Fungal Metabolites Using Genome Mining”

18:00 – 18:30 張 長生 (中国科学院・南海海洋研究所)

Changsheng Zhang (South China Sea Institute of Oceanology, CAS)

“Reductive Cyclization Cascade in the Biosynthesis of Polycyclic Tetramate Macrolactams”

18:30 - 18:35

Closing Remark

渡辺賢二 (静岡県立大学)

Kenji Watanabe (University of Shizuoka)

Contact:

阿部郁朗 (東京大学)

Ikuro Abe (The University of Tokyo)

E-mail: biosynthesis@mol.f.u-tokyo.ac.jp