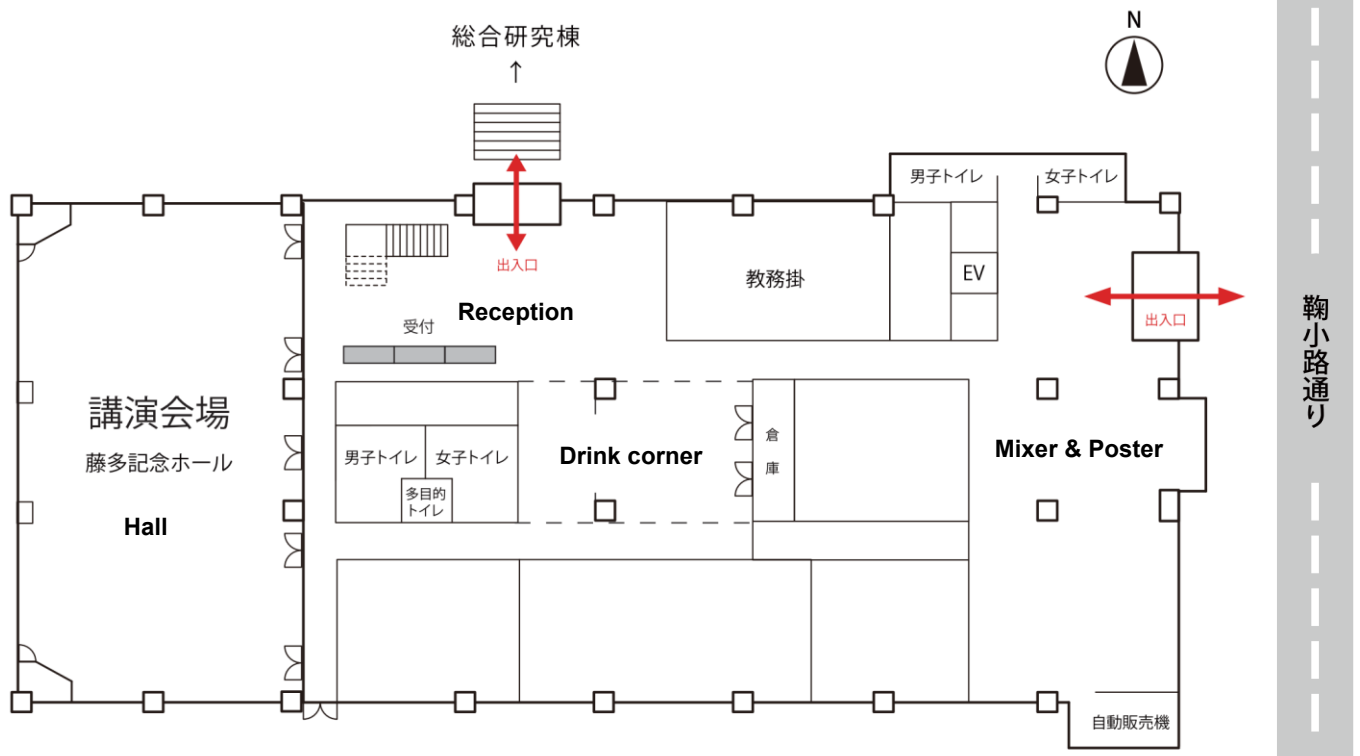


【会場案内】



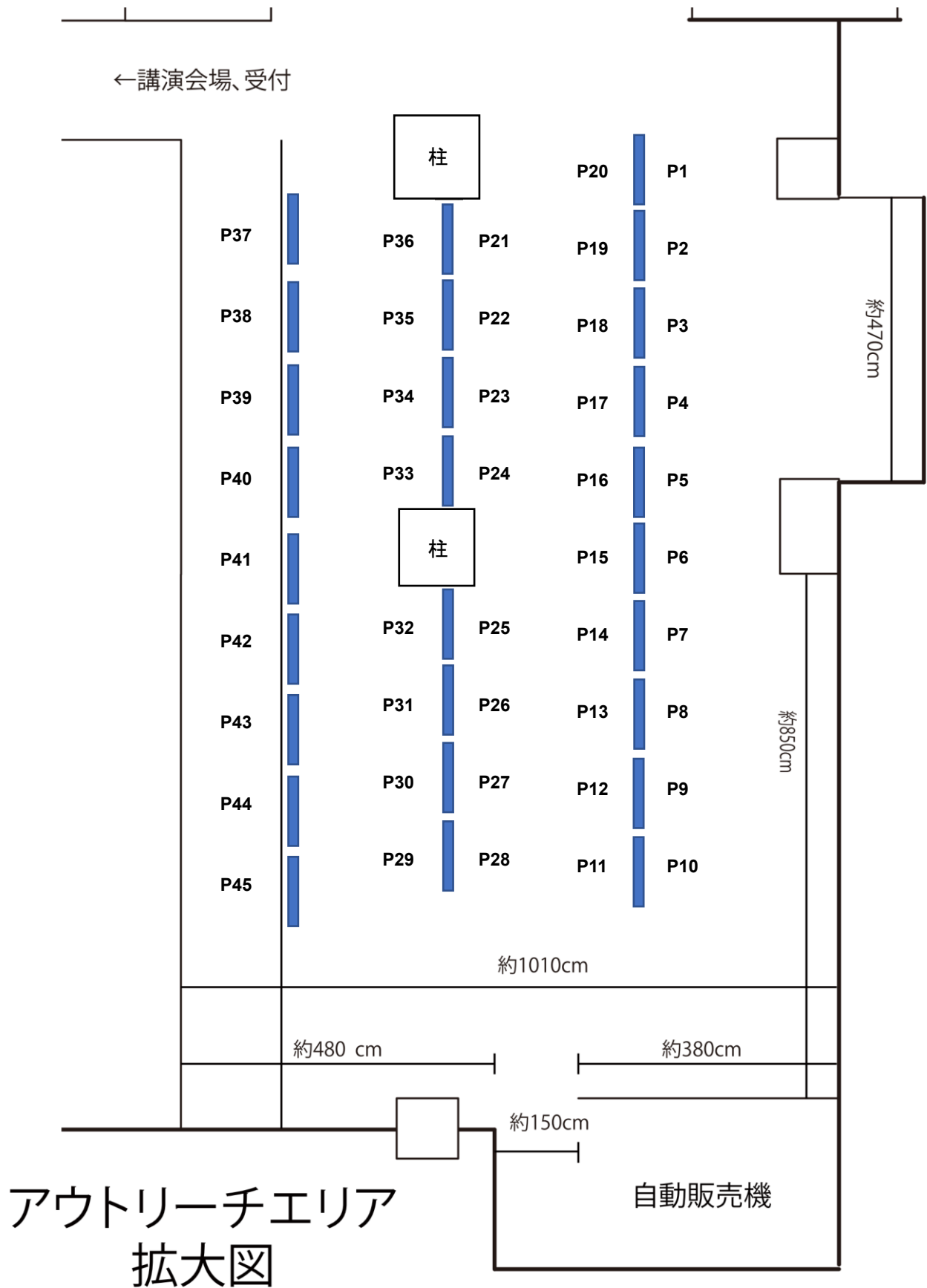
【ご案内】

- ・会場を含め大学構内は全面禁煙です。
喫煙スペースもございませんので、敷地内では禁煙をお願い致します。
- ・講演会場「藤多記念ホール」は飲食禁止です。
休憩スペースでお飲み物を準備しております。
- ・医薬系総合研究棟の開館時間は08：30です。
2日目は朝早く到着されても入館できませんのでご注意ください。

【口頭発表者の方へ】

- ・ご発表は質疑応答、次演者との交代を含めて20分です。
- ・発表前の休憩時間にご自身のPCをお持ちいただき、接続をご確認ください。
- ・万が一の場合に備えて、USBなどにバックアップデータをお持ちください。

【ポスター会場】



【ポスター発表者の方へ】

- ・ポスターボードサイズは（幅 1,160mm × 高さ 1,760mm）です。
- ・12月5日の10:00までに指定の場所へポスターを掲示してください。
- ・発表後は13:00までにポスターを剥がしてお持ち帰りください。

第 12 回有機触媒シンポジウム

日時：令和元年12月4日～12月5日

口頭発表会場：京都大学薬学研究科医薬系総合研究棟 藤多記念ホール

ポスター発表会場：京都大学薬学研究科医薬系総合研究棟 アウトリーチエリア

Program

12月4日（水）

13:00 **Opening Remarks**

Oral Presentation & Invited Lectures

13:10–14:30 Chair: Kazuo Nagasawa (Tokyo University of Agriculture and Technology)

O1 13:10–13:30

Hypoiodite-catalyzed Chemoselective Oxidative Generation of *ortho*-Quinone Methides and Tandem Reactions

Muhammet Uyanik (Nagoya University)

O2 13:30–13:50

Exploration of Flow Reaction Conditions Using Machine-learning for Enantioselective Organocatalyzed Rauhut-Currier/[3+2] Annulation Sequence

Shinobu Takizawa (Osaka University)

O3 13:50–14:10

Chiral Phosphoric Acid-Catalyzed Asymmetric Mannich-Type Reaction Using Imino Peptide as Substrate

Tsubasa Inokuma (Tokushima University)

O4 14:10–14:30

Amide-to-Alkene Peptidomimetic Catalysts for Probing *s*-type H-Bonding Mimicry of Chloroalkene Dipeptide Isostere

Tetsuo Narumi (Shizuoka University)

IL-1 14:40–15:40 Chair: Keiji Maruoka (Kyoto University)

Recent Advance on N-Heterocyclic Carbene Organocatalysis From Chiral to Axial Chiral Molecules

Jian Wang (School of Pharmaceutical Science, Tsinghua University, China)

15:50–17:10 Chair: Nobuyuki Mase (Shizuoka University)

O5 15:50–16:10

Organic Superbase *t*-Bu-P4 Catalyzes Amination of Carbon-methoxy Bonds

Masanori Shigeno (Tohoku University)

O6 16:10–16:30

***N*-Hydroxybenzimidazoles as Novel Organoradical Precursors for Direct C–H Functionalization Reactions**

Akira Matsumoto (Kyoto University)

O7 16:30–16:50

Asymmetric Dearomatizing Fluorinations under Phase-Transfer Catalysis

Hikomichi Egami (University of Shizuoka)

O8 16:50–17:10

Development of Chiral Ureates as Chiral Strong Brønsted Base Catalysts

Azusa Kondoh (Tohoku University)

IL-2 17:20–18:20 Chair: Yoshiji Takemoto (Kyoto University)

Organocatalytic Umpolung with *N*-Heterocyclic Carbenes: From the Breslow Intermediate to Natural Products

Albrecht Berkessel (Department of Chemistry, Organic Chemistry, University of Cologne, Germany)

18:30–20:00 **Mixer** (京都大学薬学研究科医薬系総合研究棟アウトリーチエリア)

12月5日(木)

9:10–10:30 Chair: Shuichi Nakamura (Nagoya Institute of technology)

O9 9:10–9:30

N-Aryl Impact on the NHC Catalyst Activity for γ -Butyrolactone Formation via Homoenolate Annulation with Aldehydes

Ryuji Kyan (Shizuoka University)

O10 9:30–9:50

Remote Desymmetrization of Long-Chain Diols by Catalytic Enantioselective Silylation

Hisashi Hashimoto (Kyoto University)

O11 9:50–10:10

Zwitterionic 1,2,3-Triazolium Amidate as a Catalyst for Photoinduced Hydrogen-Atom Transfer Radical Alkylation

Ryuhei Suzuki (Nagoya University)

O12 10:10–10:30

Polymer-supported *cis*-2,4-Disubstituted Pyrrolidine Derivatives and Their Application to Asymmetric Reactions

Hidenori Ochiai (Kaneka Corporation)

10:40–12:00 **Poster Presentation**

10:40–11:20 Odd number, 11:20–12:00 Even number

12:00–13:20 **Lunch**

13:20–14:40 Chair: Takahiko Akiyama (Gakushuin University)

O13 13:20–13:40

Development of Aerobic Alcohol Oxidation with Nitroxyl Radical/ NO_x Catalysis: Alternative Catalysts and Application to Large-Scale Synthesis

Yusuke Sasano (Tohoku University)

O14 13:40–14:00

Phosphine Oxide-catalyzed Enantioselective Aldol Reaction of Carboxylic Acids

Shunsuke Kotani (Kumamoto University)

O15 14:00–14:20

Nazarov Cyclization Induced by 2,2'-Biphenol/B(OH)₃ Catalyst System

Kenji Sugimoto (University of Toyama)

O16 14:20–14:40

Enantioselective Aza-Friedel–Crafts Reaction of Pyrroles and Indoles Catalyzed by Chiral C₁-Symmetric Bis(phosphoric acid)

Manabu Hatano (Nagoya University)

IL-3 14:50–15:50 Chair: Yujiro Hayashi (Tohoku University)

Halogen Bonding in Chiral Cation Catalysis

Choon Hong Tan (Division of Chemistry and Biological Chemistry, School of Physical and Mathematical Science, Nanyang Technological University, Singapore)

15:50–16:10 **Poster Award & Closing Remarks**

Poster Presentation

P1. Enantioselective Mannich Reactions of Ketones Catalyzed by 3-Pyrrolidinecarboxylic Acid in the Presence of Metal Salts

Yuvraj Garg (Okinawa Institute of Science and Technology Graduate University)

P2. Direct and Enantioselective Cross-aldol Reaction of Acetaldehyde with Aliphatic Aldehyde

Yuji Watanabe (Kyoto University)

P3. Asymmetric Catalysis Using a Primary Amino Acid for the Reaction of α -Branched Aldehydes with Alkyl Halides

Masanori Yoshida (Asahikawa College)

P4. Asymmetric Addition of Oxazolones to 2*H*-Azirines Using Cinchona Alkaloid Sulfonamide Catalysts

Masataka Miura (Nagoya Institute of technology)

P5. Catalytic Synthesis of Isoquinolines via Intramolecular Migration of *N*-Aryl Sulfonyl Groups on 1,5-Yne-Imines

Chika Nishimura (Osaka University)

P6. Development of Chiral Organosuperbase Catalyst Consisting of Two Different Organobase Functionalities

Hikaru Tezuka (Tohoku University)

P7. Fluoride-ion Catalyzed Reaction of Phenyl Esters with (Trifluoromethyl)trimethylsilane

Kenjiro Takahashi (Osaka University)

P8. Catalytic Asymmetric Cyanoalkylation of Electron-Deficient Olefins

Yusuke Morita (Nagoya University)

P9. Catalytic Asymmetric Bromolactonization Using Chiral Bisguanidine Catalyst

Ryosuke Tsutsumi (Rikkyo University)

P10. Development of Enantioselective Umpolung Domino Reaction

Tomohiro Furukawa (Osaka University)

P11. Tripeptide-Catalyzed Asymmetric Aldol Reaction of Activated Ketones

Kazumasa Kon (Kitami Institute of Technology)

P12. Asymmetric Reduction of Tertiary Indolylmethanol with Benzothiazoline by Means of Chiral Phosphoric Acid

Hiroto Osakabe (Gakushuin University)

P13. Flavohybrids That Enable Efficient Use of Biomimetic Catalytic Species

Yukihiro Arakawa (Tokushima University)

P14. Hypervalent Iodine(III) Reagent Induced *N*-Glycosylation Reaction of Thioglycoside

Koji Morimoto (Ritsumeikan University)

P15. N-Heterocyclic Carbene-Catalyzed Vicinal Alkylacylation of Alkenes

Kenji Ota (Kanazawa University)

P16. Ir/B Hybrid Asymmetric Catalysis for Stereodivergent Construction of α -Quaternary- β -tertiary Carboxylic Acids

Hongyu Chen (The University of Tokyo)

P17. Asymmetric Vinylogous Michael Reaction between α,β -Unsaturated Aldehyde and 2-Acetylcyclohexenone Catalyzed by Organocatalyst

Yurina Suga (Tohoku University)

P18. Synthesis of Phenylcyclopropane-based Secondary Amine Catalysts and Their Applications in Enamine Catalysis

Aika Takeshima (Kyoto University)

P19. Parallel Kinetic Resolution of Racemic Unsymmetrical Bisallylic Amides

Mamoru Ichikawa (University of Shizuoka)

P20. Organophotoredox-Catalyzed C(sp³)-Heteroatom Bond Formation

Shotaro Shibutani (Kanazawa University)

P21. Enantioselective Friedel-Crafts Alkylation Reaction of 4,7-Dihydroindole to Trifluoromethylated *N*-H Ketimines by Means of Chiral Phosphoric Acid

Riku Suzuki (Gakushuin University)

P22. Silylation of Alcohols by *N,O*-Bis(*tert*-butyldimethylsilyl)acetamide with DMAPO

Hiroki Mandai (Gifu University of Medical Science)

P23. Guanidinium Hypoiodite Catalyzed Enantioselective Spirocyclization of Oxindole

Kota Sugimoto (Tokyo University of Agriculture and Technology)

P24. Enantioselective Decarboxylative Protonation and Deuteration of β -Ketocarboxylic Acids

Haruna Mizutani (Toyohashi University of Technology)

P25. Direct Synthesis of Ynones from Aldehydes with Hypervalent Alkynyliodine Reagents under Metal- and Additive-free Conditions

Saori Tsuzuki (Kyoto University)

P26. Asymmetric Synthesis of Chiral Fluoroalkenes by Stereospecific S_N2' Reaction of 3-Chloro-3-fluoropropens

Kazumasa Kitahara (Toyohashi University of Technology)

P27. Diastereoselective Synthesis of 4,5-Disubstituted *trans*- γ -Butyrolactones by N-Heterocyclic Carbene-Catalyzed Homoenate Annulation

Yuya Kitagawa (Shizuoka University)

- P28.** Application of a New Rapid Chromene Construction Catalyzed by DBU to the First Total Synthesis of Radulanin J
Takuto Oe (Kobe University)
- P29.** Brønsted Acid-Catalyzed C-H Functionalization of Toluene Derivatives Utilizing Benzopyrylium Cation Intermediate as a Strong Oxidant under Light Irradiation
Jun Kikuchi (Tohoku University)
- P30.** Facile Synthesis of Chiral Spirooxindoles *via* Sequential Reactions
Naoki Matsuyama (Osaka University)
- P31.** Organic Base-Catalyzed Primary Alcohol-Selective Aroylation for Rapid Access to Complex Unexplored Prodrugs
Yasuaki Morita (Kobe University)
- P32.** Asymmetric Intramolecular Aldol Reaction of Dialdehyde Derived from Naturally Occurring Hexose
Akihisa Suga (Kyoto University)
- P33.** Dual Actions of Thiobenzoic Acid under Photoirradiation
Fumihisa Kobayashi (University of Shizuoka)
- P34.** Development of a New Aza-Michael Addition-Asymmetric Protonation to α,β -Unsaturated Carboxylic Acids with Thiourea-Boronic Acid Hybrid Catalyst
Hiroki Murakami (Kyoto University)
- P35.** Development of Polymer Supported Diphenylprolinol Alkyl Ether
Shusuke Hattori (Tohoku University)
- P36.** Photo-mediated Radical Addition to a Methylenehydrazine for the Introduction of C1 Unit
Tatsuki Matsugasako (Kyoto University)
- P37.** Synthetic Study of Aspidophylline A Based on Gold(I)-Catalyzed Cascade Cyclization
Junichi Taguchi (Kyoto University)
- P38.** Synthetic Study of Tubingensin B, a Hexacyclic Indole Diterpenoid
Hiroshi Takikawa (Kyoto University)
- P39.** *gem*-Diboronic Acid-catalyzed Condensation Reaction to Form a Peptide Bond
Tatsuhiko Sakaguchi (Kyoto University)
- P40.** Gold-Catalyzed Cascade Cyclization of Anilines with Dienes: Controllable Formation of Eight-Membered Ring Fused Indoles and Propellane-Type Indolines
Ayuta Yamaguchi (Kyoto University)
- P41.** Efficient Synthesis of Nitrogen containing Medium Rings with Ynamides catalyzed by Tf_2NH
Yousuke Yamaoka (Kyoto University)

P42. Diastereodivergent Asymmetric Addition of Glyoxylate Cyanohydrin to Imines for the Synthesis of β -Amino Acid Analogues

Yusuke Tokuhira (Kyoto University)

P43. Synthesis of Mirror-Image Protein of Glutamate Racemase

Naoya Iwamoto (Kyoto University)

P44. The Asymmetric Thia-Michael Addition of α,β -Unsaturated Carboxylic Acid

Noboru Hayama (Mukogawa Women's University)

P45. Development of Chemoselective Thioamidation by Activation of Elemental Sulfur

Sho Murakami (Kyoto University)