PROGRAM

Oral Presentation

1st day, September 7th (Wed)

Morning

9:10~10:00 Chair: Takaaki Sato (Keio University)

1 Toward relay synthesis of macrodiolide luminamicin, a potent anti-anaerobic bacterial agent

(¹ Graduate School of Infection Control Sciences, Kitasato University,

² Ōmura Satoshi Memorial Institute, Kitasato University)

<u>Aoi Kimishima</u> ^{1,2}, Hiroyasu Ando ¹, Shogo Sekikawa ¹, Tohoru Kojima ¹,

Motoyoshi Ohara ¹, Yoshihiro Watanabe ^{1,2}, Yuki Inahashi ^{1,2}, Hirokazu Takada ¹,

Akihiro Sugawara ^{1,2}, Takanori Matsumaru ¹, Goh Sennari ^{1,2}, Yoshihiko Noguchi ^{1,2},

Masato Iwatsuki ^{1,2}, Tomoyasu Hirose ^{1,2}, Toshiaki Sunazuka ^{1,2}

2 Synthetic Studies of Daphniphyllum Alkaloids

(¹ Graduate School of Pharmaceutical Sciences, Nagoya University)

<u>Daisuke Nakajima</u> ¹, Yoshitake Nishiyama ¹, Satoshi Yokoshima ¹

10:00~11:15 Chair: Arihiro Iwasaki (Keio University)

3 Synthesis and evaluation of rocaglamide derivatives targeting cancer with abnormal expression of transcription factor ASCL1

(¹ Keio University, ² Chiba University) Yoshinori Makita ^{1,2}, Shun Saito ¹, Masami Ishibashi ², Midori A. Arai ¹

4 Cancer therapy by in vivo tagging reaction using ruthenium-complex and derivative of natural peptide.

(¹ RIKEN, ² Tokyo Tech)

<u>Kyohei Muguruma</u> ¹, Peni Ahmadi ¹, Kyosuke Imai ², Tsung-Che Chang ¹,

Ambara R. Pradipta ^{1,2}, Katsunori Tanaka ^{1,2}

5 Mechanism of action of korormicin A, a selective inhibitor of Vibrio cholerae Na⁺-translocating NADH-quinone oxidoreductase

(¹ Kyoto University, ² Osaka University, ³ Rensselaer Polytechnic Institute) <u>Takahiro Masuya</u> ¹, Moe Ishikawa ¹, Tanaka Hinako ¹, Jun-ichi Kishikawa ², Blanca Barquera ³, Yuki Kitazumi ¹, Masatoshi Murai ¹, Hideto Miyoshi ¹

11:20~12:20 Short Presentation

12:20~13:10 Lunch Break

Afternoon

13:10~14:40 Poster Discussion (P1-1 ~ P1-28)

14:45~15:35 Chair: Satoshi Ichikawa (Hokkaido University)

6 Synthetic studies on aculeines, peptide toxins post-translationally modified by long-chain polyamines

(¹ Yokohama City University, ² University of Shizuoka, ³ National Institute of Technology, Hakodate College, ⁴ Kyoto University, ⁵ Hokkaido University)

Raku Irie 1, Masayoshi Miyahara 1, Sara Takaki 1, Ryoya Wakabayashi 1,

Chisato Tani², Satoko Matsunaga³, Yumi Irie⁴, Makoto Inai², Hitoshi Ouchi²,

Kazuhiro Irie ⁴, Ryuichi Sakai ⁵, Toshiyuki Kan ², Masato Oikawa ¹

7 Synthesis, Structure, and Biological Activities of BPPs from Blarina brevicauda

(¹ Nagoya Univ., ² Hokkaido Univ.)

<u>Yusuke Yano</u> ¹, Ryo Fukuoka ¹, Andres D. Maturana ¹, Satoshi D. Ohdachi ², Masaki Kita ¹

15:35~16:25 Chair: Kosuke Namba (Tokushima University)

8 Studies toward the Enantioselective Total Synthesis of Portimine

(Tohoku University)

Daisuke Sato, Atsushi Umehara, Makoto Sasaki

9 Total Synthesis of Lobatamides

(¹ Keio University)

Shona Banjo ¹, Yoshiyuki Nagashima ¹, Yuto Okada ¹, Soichiro Yasui ¹, Eiko Nakasuji ¹, Kana Hayashi ¹, Noritaka Chida ¹, Takaaki Sato ¹

16:25~17:15 Chair: Chihiro Tsukano (Kyoto University)

10 Divergent total synthesis of monoterpenoid indole alkaloids via strictosidine derivatives

(¹ Chiba University, ² Yamaguchi University)

Jukiya Sakamoto¹, Michinori Sumimoto², Hayato Ishikawa¹

11 Synthetic studies on mavacurine alkaloids

(Tohoku University)

Kosuke Okada, Hirofumi Ueda, Hidetoshi Tokuyama

17:15~18:05 Chair: Masaru Hashimoto (Hirosaki University)

12 Study on Daphnane and Tigliane Diterpenes isolated from Stellera chamaejasme L. and Wikstroemia retusa A.Gray as HIV Latency-Reversing Agents

(Kumamoto University)

<u>Yuki Hitora</u>, Ahmed H. H. El-Desoky, Keisuke Eguchi, Naoki Kishimoto, Toshifumi Asano, Hikaru Kato, Shunsuke Kotani, Teruya Nakamura,

Makoto Nakajima, Shogo Misumi, Sachiko Tsukamoto

13 Stereostructural Analysis of Flexible Oxidized Lipids and Their Fluorinated Derivatives Using VCD Spectroscopy

(Hokkaido University)

<u>Tohru Taniguchi</u>, Shu Takimoto, Naka Ida, Nurul Fajry Maulida, Mutmainah, Kenji Monde

18:05~18:55 Chair: Yoko Saikawa (Keio University)

14 Studies on cryptic metabolites induced by bacterial membrane vesicles

(Faculty of of Pharmaceutical Sciences, Hokkaido University)

<u>Aya Yoshimura</u>, Rio Saeki, Ryusuke Nakada, Shota Tomimoto, Kenichi Matsuda,
Toshiyuki Wakimoto

15 Sponge-derived Lectin Reveals Novel Activation Mechanism of Cytokine Receptors

(¹ Hokkaido University, ² Tohoku University, ³ Juntendo University, ⁴ Northwestern University, ⁵ Kitasato University)

<u>Hiromi Watari</u> ¹, Hiromu Kageyama ², Nami Masubuchi ³, Pamela J. Focia ⁴, Takashi Matsui ⁵, Yoshio Kodera ⁵, Marito Araki ³, Yoshikazu Tanaka ², Ryuichi Sakai ¹

2nd day, September 8th (Thu)

Morning

9:10~10:00

Chair: Hayato Ishikawa (Chiba University)

16 Total Syntheses of Guaianolide-type sesquiterpene lactones

(¹ Grad. Sch. Pharm. Sci., Tokushima Univ., ² Pharm. Sci., Tokushima Univ., ³ Pharm. Sci., Tokushima Bunri Univ.)

<u>Yuki Kimura</u>¹, Eisaku Ohashi ¹, Sangita Karanjit ¹, Takashi Taniguchi ², Atsushi Nakayama ¹, Hiroshi Imagawa ³, Ryota Sato ¹, Kosuke Namba ¹

17 Unified total syntheses of cephalotane-type norditerpenoids

(UC Berkeley)

<u>Goh Sennari</u>, Maximilian Haider, Stefan Wiesler, Kristen Gardner, Alina Eggert, Richmond Sarpong

10:00~10:50 Chair: Shunji Takahashi (RIKEN CSRS)

18 Azlactone-Forming Enzyme Involved in the Production of Fungal Benzofuran Compounds.

(University of Shizuoka)

Shinji Kishimoto, Ayumi Minami, Yuya Matsubara, Mika Takeshima, Shogo Watanabe, Kenji Watanabe

19 Biosynthetic mechanisms of the hydroxamic acid group of trichostatin A.

(¹ University of Tokyo, ² JSPS Research Fellow, ³ AIST)

<u>Ryuhei Nagata</u> ¹,², Kei Kudo ¹, Taro Ozaki ¹, Kazuo Shin-ya ³, Makoto Nishiyama ¹,

Tomohisa Kuzuyama ¹

10:55~11:55 Short Presentation

11:55~12:45 Lunch Break

Afternoon

12:45~14:15 Poster Discussion (P2-1 ~ P2-28)

14:20~14:25 Advance Notice

14:25~15:15 Chair: Masaki Kita (Nagoya University)

20 Fungal toxin fusicoccin enhances photosynthesis and plant growth by promoting stomatal opening

(¹ Academic Assembly, Institute of Agriculture, Shinshu University, ² Graduate School of Science, Nagoya University)

<u>Hironaru Kiriyama</u>¹, Satoru Kinoshita², Yuki Hayashi², Shigemitsu Kasuga¹, Toshinori Kinoshita², Hiroki Irieda¹, Junko Ohkanda¹

21 Anti-GA activity of α-(7Z,10Z,13Z)-hexadeca-7,10,13-trienoic acid monoglyceride via down regulation of AtKO and up regulation of AtGA2ox transcriptional levels leading low endogenous amounts of GAs in Arabidopsis thaliana

(1 Hokkaido University, 2 Research Institute of Innovative Technology for the Earth,

³ RIKEN Center for Sustainable Resource Science)

Tsuyoshi Ogihara ¹, Shunpei Shikama ¹, Akihisa Ishii ¹, Syotaro Hirota ¹,

Takafumi Shimizu², Mitsunori Seo³, Naoki Kitaoka¹, Kaien Fujino¹,

Yasunori Koda ¹, <u>Hideyuki Matsuura</u> ¹

15:15~16:05 Chair: Toshiyuki Wakimoto (Hokkaido University)

22 Structure and mechanism of ion channel complex formed by amphotericin B in lipid membrane

(¹ Graduate School of Science, Osaka University, ² Graduate School of Engineering, Nagoya University, ³ Faculty of Medicine, Oita University, ⁴ Graduate School of Science, Kyushu University, ⁵ Research Institute for Interdisciplinary Science, Okayama University)

<u>Yuichi Umegawa</u>¹, Tomoya Yamamoto¹, Mayank Dixit², Yasuo Nakagawa¹, Hiroshi Tsuchikawa^{1,3}, Shinya Hanashima¹, Nobuaki Matsumori^{1,4}, Wataru Shinoda^{2,5}, Michio Murata¹

23 Sneeze-inducing protein from the jellyfish, Chrysaora pacifica

(¹ Keio University, ² Nagoya University, ³ Tokyo University of Agriculture and Technology)

<u>Yuta Yamauchi</u> ¹, Yuri Shindo ¹, Yuma Akiyoshi ¹, Daiki Inoue ¹, Makiko Akinou ¹, Keiko Kuwata ², Sho Miyazaki ^{1,3}, Masaya Nakata ¹, Yoko Saikawa ¹

16:05~16:55 Chair: Teigo Asai (Tohoku University)

24 Biosynthetic study of macrolactam antibiotic hitachimycin

(¹ Tokyo Institute of Technology, ² University of Tsukuba)

<u>Akimasa Miyanaga</u> ¹, Sotaro Takahashi ¹, Koichi Kawamura ¹, Shohei Kurihara ¹,

Yuichiro Nakazawa ¹, Naeko Iwai ², Yoko Nagumo ², Takeo Usui ², Fumitaka Kudo ¹,

Tadashi Eguchi ¹

25 Characterization of enzymes catalyzing the stereodivergent nitrocyclopropane formation

(¹ The University of Tokyo)
Richiro Ushimaru ¹, Shotaro Shimo ¹, Takahiro Mori ¹, Ikuro Abe ¹

16:55~17:45 Chair: Go Hirai (Kyushu University)

26 Total Synthesis of JBIR-141 that Contains Oxazoline, *N*-Nitrosohydroxylamine, and 3-Acyltetraminic Acid Moieties

(¹ Tohoku University, ² University of Tsukuba, ³ Kumamoto University, ⁴ JBIC, ⁵ AIST) Kotaro Yasoshima ¹, Masahito Yoshida ², Teppei Kawahara ³, Takuya Hashimoto ⁴, Kazuo Shin-ya ⁵, <u>Takayuki Doi</u> ¹

27 Total Synthesis of Euonymine and Euonyminol Octaacetate

(The University of Tokyo)

Toshiya Nagai, Yinghua Wang, Itsuki Watanabe, Koichi Hagiwara, Masayuki Inoue

19:00~21:00 Award Ceremony & Symposium Mixer

3rd day, September 9th (Fri)

Morning

9:10~10:00

Chair: Takayoshi Awakawa (The University of Tokyo)

28 Investigation of novel peptide epimerases to introduce D-amino acid residues into peptides

(¹ Graduate School of Chemical Sciences and Engineering, Hokkaido University,
² Graduate School of Engineering, Hokkaido University)

Yasushi Ogasawara ¹, Zhi Feng ², Wanlu Xiao ², Mayuko Shigematsu ², Shota Sato ², Hinata Kato ², Tohru Dairi ¹

29 Fungal flavonoid biosynthesis by an alternative chalcone synthase

(Graduate School of Pharmaceutical Sciences, Tohoku University)

<u>Sho Furumura</u>, Yohei Morishita, Kento Tsukada, Akihiro Sugawara, Taro Ozaki,
Teigo Asai

10:00~10:50 Chair: Fumitaka Kudo (Tokyo Institute of Technology)

30 Isotope-guided metabolomics reveals polar-functionalized fatty-acylated ribosomally synthesized and posttranslationally modified peptides (RiPPs) from *Streptomyces* (The University of Tokyo)

Shumpei Asamizu, Shotaro Hoshino, Shinta Ijichi, Hansaem Jo, Hiroyasu Onaka

31 Characterization of a novel C-geranyltransferase LimF and its application for artificial macrocyclic peptide synthesis

(¹ Univ. Tokyo, ² Yokohama City Univ., ³ Kanagawa Univ.) Yuchen Zhang ¹, Keisuke Hamada ², Dinh Thanh Nguyen ¹, Sumika Inoue ¹, Masayuki Satake ¹, Masahiro Okada ³, Toru Sengoku ², Yuki Goto ¹, Hiroaki Suga ¹ 10:50~12:05 Chair: Midori Arai (Keio University)

32 Threonyldiaminobutyric Acid Scanning of Polymyxin to Overcome Polymyxin Resistance

(¹ Faculty of Pharmaceutical Sciences, Hokkaido University, ² Global Station for Biosurfaces and Drug Discovery, Global Institution for Collaborative Research and Education, ³ Faculty of Veterinary Medicine and Graduate School of Infectious Diseases, Hokkaido University, ⁴ Sapporo Medical University)

<u>Rintaro Kaguchi</u> ¹, Akira Katsuyama ^{1,2}, Toyotaka Sato ³, Motohiro Horiuchi ³, Sin-ichi Yokota ⁴, Satoshi Ichikawa ^{1,2}

33 Isolation, Structure Determination, Total Synthesis and Biological Activity of Beru'amide, a Scarce Polyketide

(¹ Keio University, ² Tokyo University)

<u>Raimu Taguchi</u> ¹, Arihiro Iwasaki ¹, Akira Ebihara ¹, Ghulam Jeelani ²,

Tomoyoshi Nozaki ², Kiyotake Suenaga ¹

34 Controlled lipid β-oxidation and carnitine biosynthesis by a vitamin D metabolite

(¹ ICR, Kyoto University, ² Graduate School of Technology, Tokyo University of Agriculture and Technology, ³ Faculty of Pharmaceutical Sciences, Teikyo University, ⁴ Faculty of Pharmaceutical Sciences, Tokyo University of Science, ⁵ RIKEN Center for Sustainable Resource Science, ⁶ Department of Gastroenterology, the University of Tokyo, ⁷ iCeMS, Kyoto University)

Yasushi Takemoto ¹, Aileen Mendoza ¹, Kevin Tan Cruzado ¹, Shadi Sedghi Masoud ², Akiko Nagata ², Ajcharapan Tantipanjaporn ¹, Satoshi Okuda ¹, Fumihiro Kawagoe ³, Ryota Sakamoto ², Minami Odagi ², Sayuri Mototani ³, Moeka Togashi ⁴, Makoto Kawatani ⁵, Harumi Aono ⁵, Hiroyuki Osada ⁵, Hayato Nakagawa ⁶, Tatsuya Higashi ⁴, Atsushi Kittaka ³, Kazuo Nagasawa ², Motonari Uesugi ^{1,7}

12:05~13:00 Lunch Break

Afternoon

13:00~13:50 Chair: Hiroki Oguri (The University of Tokyo)

35 Asymmetric Total Synthesis and Structure Revision of Lancilactone C, an Anti-HIV Triterpenoid

(1 Kyoto University)

Chihiro Tsukano ¹, Hidetaka Kuroiwa ¹, Soichiro Suzuki ¹, Kazuhiro Irie ¹

36 Total synthesis of amycolamicin, a potent broad-spectrum antibiotic

(Graduate School of Agricultural Science, Tohoku University)
<u>Yasuhiro Meguro</u>, Junya Ito, Kiyotaka Nakagawa, Shigefumi Kuwahara

13:50~14:40 Chair: Masato Oikawa (Yokohama City University)

37 Study of *N*-glycan from hyperthermophilic archaeon, *Thermococcus kodakarensis*: isolation, synthesis, functional analysis

(¹ Osaka University, ² Project Research Center for Fundamental Sciences, Osaka University, ³ University of Napoli Federico II, ⁴ Kyoto University)

<u>Kohtaro Hirao</u> ¹, Yoshiyuki Manabe ^{1,2}, Immacolata Speciale ³, Anna Notaro ³,

Takaaki Sato ⁴, Haruyuki Atomi ⁴, Antonio Molinaro ³, Cristina De Castro ³,

Koichi Fukase ^{1,2}

38 Chemical synthesis-driven identification of a scarce anticancer microbial metabolite presaccharothriolide Z

(Kyoto University)

<u>Takefumi Kuranaga</u>, Miho Tamura, Hiroaki Ikeda, Sakahiro Terada, Yusuke Nakagawa, Hideaki Kakeya

14:40~15:30 Chair: Haruhisa Kikuchi (Keio University)

39 Design, synthesis, and chiroptical properties of figure-eight macrocycles composed of natural product scaffolds

(¹ The University of Tokyo, ² Tokyo University of Science, ³ Tokyo University of Agriculture and Technology)

Tasuku Honda¹, Daiji Ogata², Takahiro Muraoka³, Junpei Yuasa², Hiroki Ogruri¹

40 Establishment of "Ring-Size-Divergent" Synthetic Method: Total Synthesis, Structural Revision, Absolute Configuration, and Biological Activity of Terpenoids Having Five, Six, and Seven-Membered Ether Rings

(¹ Graduate School of Science, Osaka Metropolitan University, ² Faculty of Fisheries, Kagoshima University)

<u>Keisuke Nishikawa</u> ¹, Tomonori Teranishi ¹, Mikishiro Hayashi ¹, Toshiki Niwa ¹, Kengo Morita ¹, Subaru Hashimoto ¹, Momochika Kumagai ^{1,2}, Yoshiki Morimoto ¹

15:30~16:45 Chair: Satoshi Yokoshima (Nagoya University)

41 A Collective Synthesis of Aplisiatoxn and Oscillatoxin Analogues

(¹ Nagoya University, ² Toyama Prefectual University)

Kohei Hada ¹, Yusuke Araki ¹, Yoshihiko Nokura ¹, Daisuke Urabe ², Toshio Nishikawa ¹

42 Synthetic study on Domoic acid

(¹ University of Shizuoka, ² Tokai University)

<u>Shigeru Nishizawa</u> ¹, Takuma Ohnishi ¹, Yoshitaka Matsumura ¹, Yu Oyagi ¹,

Shingo Sasaki ¹, Hiroto Suzuki ¹, Hitoshi Ouchi ¹, Tomohiro Asakawa ², Makoto Inai ¹,

Fumihiko Yoshimura ¹, Toshiyuki Kan ¹

43 Total synthesis of scytonemin, an anti-inflammatory UV absorver

(Graduate school of advanced science and engineering, Waseda University) Yutaro Udagawa, Seijiro Hosokawa

Poster Presentation

1st day, September 7th (Wed)

P1-1 Phytochemical, Antioxidant, and Silver Nanoparticles Synthesis Studies on Odontonema strictum

(¹ Sophia Univ)

Lokadi Pierre Luhata ¹, Toyonobu Usuki ¹

P1-2 A high-sensitive insecticidal activity screen system using silkworm first instar larvae enables efficient pesticide seed compound search

(¹ Graduate School of Infection Control Sciences, Kitasato University, ² School of Science, Kitasato University, ³ Ōmura Satoshi Memorial Institute, Kitasato University)

<u>Naozumi Kondo</u>¹, Mai Sato², Kazunari Sakai³, Aoi Kimishima^{1,3}, Hidetaka Yuge², Yoshihiro Watanabe^{1,3}, Masato Iwatsuki^{1,3}, Yukihiro Asami^{1,3}

P1-3 Effect of rice-derived glucosylceramides and free ceramides on epidermal hydration and melanogenesis

(¹ Pharm. Res. Technol. Inst., Kindai Univ., ² Oryza Oil & Fat Chemical Co., Ltd.) Shogo Takeda ^{1,2}, Kenchi Miyasaka ², Akari Yoneda ², Sarita Shrestha ¹, Yoshiaki Manse ¹, Hiroshi Shimoda ², Toshio Morikawa ¹

P1-4 Structural basis for the complex formed by baicalin and berberine

(Faculty of Pharmacy, Keio University)

<u>Yoshinori Uekusa</u>, Chiharu Tanioka, Chihiro Iida, Riina Tsutsumi, Takehiro Nishimura, Fumiyuki Kiuchi, Haruhisa Kikuchi

P1-5 Preparation of chemical probes of marine cyclic peptides kapakahines and analysis of their modes of actions.

(Faculty of Science and Engineering, Waseda University)

Rie Kamihira, Daisuke Arai, Yoichi Nakao

P1-6 Asymmetric total syntheses of preussomrins: stereospecific photoredox reaction of naphthoquinone via 1,6-hydrogen shift

(¹ Tokyo Institute of Technology, Department of Chemistry, ² Tokyo Institute of Technology, Institute of Innovative Research)

Yoshio Ando ¹, Daichi Ogawa ¹, Ken Ohmori ¹, Keisuke Suzuki ²

P1-7 Synthetic Studies on Polycyclic Marine Natural Product, Bisgersolanolide

(Grad. Sch. Biomed. Sci., Nagasaki Univ.)

Norihiko Kawasaki, Keita Komine, Hayato Fukuda, Jun Ishihara

P1-8 Total Synthesis of (-)-Lamellodysidine A

(Hoshi University)

Shogo Kamo, Hitomi Kurosawa, Akinobu Matsuzawa, Kazuyuki Sugita

P1-9 Synthetic studies of hyphenrone A

(Department of Applied Chemistry, Keio University)

Takeshi Kobayashi, Yusuke Yokoya, Manami Takenaka, Akihiro Ogura, Ken-ichi Takao

P1-10 Stereoselective Syntheses of trans-Anhydromevalonyl Group-Containing Natural Products

(¹ Osaka City University)

Atsushi Nakayama ¹, Yoko Yasuno ¹, Yuki Yamamoto ¹, Hironori Okamura ¹, Tetsuro Shinada ¹

P1-11 Total synthesis of zephycarinatines C and D via photocatalytic spirocyclization (Kyoto University)

Shinsuke Inuki, Haruka Takeuchi, Kohei Nakagawa, Takaaki Kawabe, Atsuhiko Ichimura, Shinya Oishi, Hiroaki Ohno

P1-12 Total Synthesis, Structure Determination and Biological Evaluation of Antibiotic Cyclopeptide Pargamicin A

(¹ Degree Programs in Pure and Applied Sciences, University of Tsukuba, ² Institute of Microbial Chemistry)

<u>Tetsuya Inaba</u> ¹, Yuko Shibuya ², Masayuki Igarashi ², Masahito Yoshida ¹, Hideo Kigoshi ¹

P1-13 An efficient synthesis of N-beta-GlcNAc-Asn and unprecedented synthesis of N-alpha-GlcNAc-Asn

(¹ Kyoto Pharmaceutical University, ² Kyoto University) <u>Yusuke Kobayashi</u> ¹, Masako Yamanishi ², Yuya Nakatsuji ², Hiroshi Naka ²,

Yusuke Kobayashi ¹, Masako Yamanishi ², Yuya Nakatsuji ², Hiroshi Naka ² Yoshiji Takemoto ²

P1-14 Synthetic studies toward the total synthesis of Amphirionin-5

(¹ The University of Tokyo, ² Tohoku University)

Yusuke Ogura ¹, <u>Tadafumi Fujita</u> ¹, Syuichirou Aniya ¹, Daisuke Abe ², Shigefumi Kuwahara ², Hirosato Takikawa ¹

P1-15 Development of an efficient synthetic method for C3-position modified sialoglycans and their sialidase inhibitory activity

(Graduate School of Pharmaceutical Sciences, Kyushu University)

Keiya Uezono, Risa Maeda, Hiroaki Matoba, Makoto Yoritate, Go Hirai

P1-16 Development of σ bond cleavage reactions enabled by zirconocene and photoredox catalysis

(Waseda University)

<u>Eisuke Ota</u>, Kazuhiro Aida, Toshimasa Okita, Marina Hirao, Keisuke Tanaka, Aiko Funabashi, Junichiro Yamaguchi

P1-17 MHAT initiated transannular redox cyclization of vinylsilane enables concise syntheses of habiterpenol and 2,3-epi-habiterpenol

(¹ Kitasato University School of Pharmacy)

Masaki Ohtawa ¹, Haruki Taguchi ¹, Mayuko Kawaguchi ¹, Tohru Nagamitsu ¹

P1-18 A total synthesis of huperzine A starting from adamantane

(Graduate School of Pharmaceutical Sciences, Tohoku University)

Hiroyuki Yamakoshi, Fumiya Ikarashi, Kenta Gonokami, Masatoshi Shibuya,

Naoki Kanoh, Yoshiharu Iwabuchi

P1-19 Structures and Cytotoxicity of Novel Steroidal Compounds from the Seeds of Digitalis purpurea

(Tokyo University of Pharmacy and Life Sciences)

Yukiko Matsuo, Minpei Kuroda, Yoshihiro Mimaki

P1-20 ACCeL: a Program for Multiconformational Calculations and its Application to the Structural Analysis of Novel Natural Products

(¹ Department of Biotechnology, Toyama Prefectural University, ² Biotechnology Research Center, Toyama Prefectural University)

Keisuke Fukaya 1,2, Zhiwei Zhang 1, Chang Liu 1, Yasuhiro Igarashi 1,2, Daisuke Urabe 1,2

P1-21 Proof of the existence of novel hericenones in Yamabushitake (Lion's mane, *Hericium erinaceus*) in collaboration with synthetic chemistry

(¹ Shizuoka University, ² Utsunomiya University, ³ Osaka Institute of Technology)

Junhong Wang ¹, Jing Wu ¹, Xiaonan Xie ², Shoji Kobayashi ³, Ryo Yamaguchi ³,

Jae-Hoon Choi 1, Hirofumi Hirai 1, Hirokazu Kawagishi 1

P1-22 Heterologous production of a new tricyclic peptide marinomonasin

(¹ Shizuoka Univ., ² NARO)

Issara Kaweewan ¹, Hiroyuki Nakagawa ², Shinya Kodani ¹

P1-23 Radical SAM enzymes that catalyze cyclophane formation on Tyr and His-containing motifs in RiPP biosynthesis

(¹ Natl. Univ. Singapore, ² Chiba Univ., ³ Ho Chi Minh City Univ. Technol., ⁴ Univ. Tronto, ⁵ A*STAR)

Ryosuke Sugiyama ^{1,2}, Angelica Faith L. Suarez ¹, Yohei Morishita ¹,

Thi Quynh Ngoc Nguyen ^{1,3}, Yi Wei Tooh ¹, Muhammad Nur Hadi Bin Roslan ¹,

Justin Lo Choy ⁴, Qi Su ¹, Wei Yang Goh ¹, Gregory Adrian Gunawan ^{1,5},

Fong Tian Wong ⁵, Brandon I. Morinaka ¹

P1-24 Biogenesis and Functionalities of Dictyoquinone, Differentiation Inducing Factor of Slime Mold *Dictyostelium discoideum*

(¹ Grad. Sch. Pharm., Meijo Univ., ² Fac. Pharm., Meijo Univ., ³ Fac. Sci. Tech., Sophia Univ., ⁴ Grad. Sch. Kyoto Univ., ⁵ Kansai Med. Univ.)

<u>Salma Zulqaida</u>¹, Waki Hayase², Tomoki Kamegai², Reina Honda³, Tamao Saito³, Kei Inouye⁴, Akiko A Oohata⁵, Yoshiaki Takaya^{1,2}

P1-25 Search for plants natural products with BMI1 promoter inhibitory activity

(1 Chiba Univ., 2 Dhaka Univ., 3 Khulna Univ.)

<u>Kazuki Fujii</u>¹, Yasumasa Hara ¹, Firoj Ahmed ², Samir K. Sadhu ³, Masami Ishibashi ¹

P1-26 Exploring of lipid-soluble vitamin-based compounds that inhibit the growth of the new coronavirus SARS-CoV-2.

(¹ Graduate School of Shibaura Institute of Technology, ² Center for Advanced Science Research and Promotion, Kagoshima University)

Taiki Homma¹, Mika Okamoto², Masanori Baba², Yoshitomo Suhara¹

P1-27 Nostosin and Spiroidesin Analogues from the Cyanobacterium *Dolichospermum* sp. (NIES-1697)

(¹ Faculty of Environmental Earth Science, Hokkaido University, ² Graduate School of Environmental Science, Hokkaido University)

Jakia Jerin Mehjabin ¹, Chin-Soon Phan ¹, Andrea Roxanne J. Anas ², Tatsufumi Okino ^{1,2}

P1-28 Chemical conversion of dimeric pyranonaphthoquinone pigments from aphids

(Faculty of Pharmaceutical Sciences, Tokushima Bunri University)

<u>Chiharu Ozakai</u>, Kei Kitamura, Mitsuyo Horikawa, Akari Imamura, Tatsuro Yoneyama, Akemi Umeyama, Masaaki Noji, Tetsuto Tsunoda, Hiroto Kaku

2nd day, September 8th (Thu)

P2-1 Molecular networking analysis of Korean bee pollens and their COMT inhibitory activities

(¹ Graduate School of Integrated Pharmaceutical and Nutritional Sciences, University of Shizuoka, ² School of Food and Nutritional Sciences, University of Shizuoka,

³ Department of Food Science and Nutrition, Dong-A University)

Ryo Miyata ¹, Sara Hoshino ², Mok-Ryeon Ahn ³, Shigenori Kumazawa ^{1,2}

P2-2 Luminescence of Cypridina luciferin with human alpha 1-acid glycoprotein (AIST BPRI)

Shusei Kanie, Yasuo Mitani

P2-3 Molecular mechanism of target receptor selectivity of paraherquamide A

(¹ Graduate School of Agriculture, Kindai University, ² University College London) Shuya Otsubo, Makoto Ihara, Sattelle David B., Kazuhiko Matsuda

P2-4 Development of less aggregative derivatives of pradimicin toward its glycobiological applications

(¹ Nagoya University, ² Tokyo Institute of Technology, ³ Toyama Prefectural University,

⁴ Osaka University, ⁵ RIKEN, ⁶ iGCORE)

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P2-5 Preparation of domoic acid and kainic acid analogues using the cyclases, and evaluation of their toxicities

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P2-6 Total synthesis of indole S, O-bisdesmoside, calanthoside B

(Kindai University)

Katsuki Takashima, Akane Asai, Mina Ashidate, Fumihiro Ishikawa, Genzoh Tanabe

P2-7 Synthetic studies on rubioncolin B and its related compounds

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<u>Takaaki Aijima</u> ¹, Shuji Akai ¹, Yoshinari Sawama ¹

P2-8 Synthetic Study of tetrapetalone A by Nucleophilic Aromatic Substitution

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Hiroki Deguchi ¹, Kengo Hanaya ¹, Takeshi Sugai ¹, Shuhei Higashibayashi ¹

P2-9 Synthetic Studies of the Macrocyclic Lactam Structure in Zetekitoxin AB

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Hayate Ishizuka ¹, Keiichi Konoki ², Mari Yamashita ², Kazuo Nagasawa ¹

P2-10 Synthetic Studies of Ansellones and Evaluation of Reactivating HIV Latent Infection

(1 Osaka University, 2 Kumamoto University)

<u>Mizushi Yanagihara</u> ¹, Kanae Nakahara ¹, Naoki Kishimoto ², Towa Abe ², Shogo Misumi ², Makoto Sako ¹, Mitsuhiro Arisawa ¹, Kenichi Murai ¹

P2-11 Synthetic study on Mytilipin C

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P2-12 Asymmetric total synthesis of nesteretal A using sequential acetal cyclization reaction

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<u>Yuichiro Kawamoto</u> ¹, Hideki Kitsukawa ¹, Toyoharu Kobayashi ¹, Hisanaka Ito ¹

P2-13 Phosphazene base-catalyzed hydroamination of aminoalkenes for the construction of isoindoline scaffolds: Application to the total synthesis of aristocularine

(University of Toyama)

<u>Junpei Matsuoka</u>, Maki Terashita, Tomoka Takatori, Yumika Fujimoto, Naoya Yamashita, Akari Miyawaki, Kiyoshi Tomioka, Yasutomo Yamamoto

P2-14 Total Synthesis of Isoflavone Natural Products and Discovery of Pancreatic Cancer Drug Candidate Compounds

(¹ Faculty of Engineering, University of Toyama, ² Institute of Natural Medicine, University of Toyama)

<u>Takuya Okada</u> ¹, Nguyen Ngoc Thanh Luan ¹, Ruka Arata ¹, Suresh Awale ², Naoki Toyooka ¹

P2-15 Synthetic Studies on Urauchimycin D and Antimycin B

(Department of Chemistry, Graduate School of Science, Osaka Metropolitan University) Miyu Morii, Yuka Tanaka, Tetsuya Satoh, Yoshinosuke Usuki

P2-16 Total synthesis and analog synthesis of 3-(phenethylamino)demethyl(oxy)aaptamine, an anti-dormant mycobacterial substance

(1 Ritsumeikan University, 2 Osaka University)

<u>Yuki Nakatani</u> ¹, Hiroki Nonaka ², Junya Mukomura ¹, Tomoyo Kimata ¹, Risa Kimura ¹, Michinori Yanagihara ¹, Hiromasa Sato ², Masayoshi Arai ², Naoyuki Kotoku ¹

P2-17 Regioselective Hydrosilylation and Rapid Derivatization of Alkynes Using Glycidyl Silanes and Its Application to Natural Products

(¹ Graduate School of Pharmaceutical Sciences, Tohoku University, ² Faculty of Pharmacy, Keio University)

Akihiro Sugawara ¹, Soya Koremura ¹, Yusuke Sasano ¹, Haruhisa Kikuchi ^{1,2}

P2-18 Catalytic substrate-selective silylation of primary alcohols via remote functional group recognition

(¹ ICR, Kyoto University, ² Grad. Sch. Pharm. Sci., Kyoto University, ³ Fac. Pharm. Sci., IUHW)

Yoshihiro Ueda ¹, Hisashi Hashimoto ¹, Kiyosei Takasu ², Takeo Kawabata ^{1,3}

P2-19 Highly sterically hindered peptide bond formation between a,a-disubstituted a-amino acids and N-alkyl cysteines using a,a-disubstituted a-amidonitrile

(¹ Tohoku University)

Wang Xiaoling ¹, Jing Li ¹, Yujiro Hayashi ¹

P2-20 Isolation, Identification, and DFT-based Conformational Analysis of Sesquikarahanadienone and its Congeners from Freshwater Dothideomycetes Neohelicascus aquaticus KT4120

(¹ Faculty of Agriculture and Life Science, Hirosaki University, ² Institute of Natural Medicine, University of Toyama)

Ayane Hayasaka ¹, <u>Kazuki Hashimoto</u> ¹, Katsuhiro Konnno ², Kazuaki Tanaka ¹, Masaru Hashimoto ¹

P2-21 Study on the crystal conformation and the TJ opening mechanism of MA026, a cyclic peptide

(¹ Grad. Sch. of Sci. and Tec., Univ. Tsukuba, ² High Energy Accelerator Research Organization (KEK), ³ Inst. of Microbial Chem., ⁴ Fac. Life Environ. Sci., Univ. Tsukuba, ⁵ Tokyo Univ. Pharm. Life Sci.)

Minagi Mukaiyama ¹, Naohiro Matsugaki ², Tomokazu Ohishi ³, Yoko Nagumo ⁴, Manabu Kawada ³, Yoshio Hayashi ⁵, Toshiya Senda ³, Takeo Usui ⁴

P2-22 Conformational analysis of flexible ellagitannins

(¹ Grad. Sch. Biomed. Sci., Nagasaki Univ., ² Sch. Pharm. Sci., Nagasaki Univ.)

Misato Iki ¹, Chiho Okubo ², Yosuke Matsuo ¹, Yoshinori Saito ¹, Takashi Tanaka ¹

P2-23 Next generation natural product chemistry by the precise engineering of type I polyketide synthase

(1 AIST, 2 N2PC, 3 Kitasato University)

<u>Kei Kudo</u> ¹, Takuya Hashimoto ¹, Junko Hashimoto ², Ikuko Kozone ², Noritaka Kagaya ², Reiko Ueoka ¹, Takehiro Nishimura ², Mamoru Komatsu ³, Haruo Ikeda ³, Kazuo Shin-ya ¹

P2-24 Identification and functional analysis of a new type of *Z*,*E*-mixed prenyl reductase from mycobacteria

(¹ Niigata University Graduate School of Science and Technology, ² Niigata University School of Medicine, ³ Nagoya University)

<u>Tohru Abe</u> ¹, Mariko Hakamata ², Akihito Nishiyama ², Yoshitaka Tateishi ², Sohkichi Matsumoto ², Hisashi Hemmi ³, Daijiro Ueda ¹, Tsutomu Sato ¹

P2-25 Isolation of interesting secondary metabolites by OSMAC approach

(¹ RIKEN CSRS, ² Waseda University, ³ University of Shizuoka, [#] Current affiliation) <u>Toshihiko Nogawa</u> ¹, Julius Adam V. Lopez ¹, Yushi Futamura ^{1,2#}, Akiko Okano ¹, Kazuko Yoshida ¹, Takeshi Shimizu ¹, Hiroyuki Koshino ¹, Hiroyuki Osada ^{1,3#}

P2-26 Isolation of biologically active compounds from the methanol extract of kuji amber using the yeast ubiquitin ligase RSP5 mutant strain

(¹ Grad. Sch. of Arts and Sci. Iwate Univ., ² Div. of Biol. Sci. NAIST, ³ RIKEN CSRS)

<u>Seiya Tanba</u> ¹, Kurumi Tanaka ¹, Hiroshi Takagi ², Hiroyuki Koshino ³, Ken-ichi Kimura ¹

P2-27 Chemical studies on bitter principle, lascivol and the related compounds of Tricholoma spp.

(¹ Shizuoka University, ² Tokyo University of Agriculture)

<u>Yumiko Oba</u> ¹, Yuri Nakamura ², Wu Jing ¹, Makoto Urai ², Motohiro Tomizawa ²,

Hirokazu Kawagishi ¹, Kimiko Hashimoto ²

P2-28 Discovery of novel bifunctional drimane sesquiterpene synthases from marine bacteria

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