The 2018 Annual Meeting of the Society for Actinomycetes Japan

September 11th (Tue)

8:20 **Registration**

9:00 **Opening Remarks**

9:05 **Oral Presentation Session 1**

O-1 **Microbial production of bioketone using hybrid enzymes**

○Satoshi Yuzawa[1,2], Mona Mirsiaghi[1], Leonard Katz[2,3], and Jay Keasling[1,2,3]

([1]LBNL, [2]JBEI, [3]UC Berkeley)

O-2 **Characterization and application of interfacial bioprocess with an actinomycete**

○Haruka Kuboki, Shinobu Oda

(Genome Biotechnol. Lab., Kanazawa Inst. Technol.)

O-3 (P-54) **Characterization of actinomycete strain AKA32 isolated from deep-sea water in Izu-Akazawa, Japan**

○Taehui Yang[1], Katsuhisa Yamada[2], Tao Zhou[3], Enjuro Harunari[3], Yasuhiro Igarashi[3], Ikegami Yasuyuki[4], Takeshi Terahara[1], Takeshi Kobayashi[1], Chiaki Imada[1]

([1]Tokyo Univ. of Mar. Sci. and Technol., [2]DHC Corporation, [3] Toyama Pref. Univ., [4]Saga Univ.)

O-4 (P-55) **Application of combined-culture strategy to rare-actinomycetes and discovering novel secondary metabolites**

○Shotaro Hoshino[1], Takayoshi Awakawa[1], Hiroyasu Onaka[2], Ikuro Abe[1]

([1]Grad. Sch. Pharm. Sci., The Univ. of Tokyo, [2]Grad. Sch. Agri. And Life Sci., The Univ. of Tokyo.)

O-5 (P-56) **Mechanism of succinylation involved in reveromycin biosynthesis**

○Naoko Kito[1], Yumi Sato[1], Hideo Okumura[2], Takashi Kumasaka[2], Hiroyuki Osada[3], Shunji Takahashi[1]

([1] RIKEN CSRS Nat. Prod. Biosynth., [2]JASRI, [3] RIKEN CSRS Chem. Biol.)

O-6 **Biosynthetic Gene Cluster of a-D-Tryptophan Containing Lasso Peptide, MS-271**

(P-57) ○Zhi Feng, Yasushi Ogasawara, Satoshi Nomura, and Tohru Dairi

(Grad. Sch. Engineering, Hokkaido Univ.)

10:23 Break

10:50 **Invited Lecture 1**

Continuing Fascination with Actinomycetes:**From Phenotypic Screening to Chemical Biology**

Hideaki Kakeya (Graduate School of Pharmaceutical Sciences, Kyoto University)

11:35 Lunch

12:45 **The SAJ Plenary Meeting**

13:15 **Award Ceremony**

13:45 **Award Lectures**

Ōmura Award (SAJ Award)

Investigation of secondary metabolite diversity in actinomycetes using spectrochemical approach

Yasuhiro Igarashi (Department of Biotechnology, Toyama Prefectural University)

SAJ Merit Award

Discovery of various actinomycete metabolites and contribution to electron microscopic observation

Shoichi Amano (Former Meiji Seika Co., Ltd)

Hamada Award

Study on biosynthesis of natural products synthesized from aminobenzoate in Actinobacteria

Yohei Katsuyama (Graduate School of Agricultural and Life Sciences, The University of Tokyo)

Screening for novel bacterial infection control compounds from actinomycetes

Atsushi Fukumoto (Faculty of Pharmaceutical Sciences, Toho University)

SAJ Award for Corporation

Efforts of stable supply and increasing production for tacrolimus produced by *Streptomyces tsukubensis*

Astellas Pharma Tech Co., Ltd.

15:40 Break

16:00 **Poster Short Presentation (odd numbers)**

17:00 **Poster Session (odd numbers)**

18:00 Break

18:30 **Banquet** (Until 20:30)

September 12th (Wed)

9:00 **Oral Presentation Session 2**

O-7 (P-58) **Purification and identification of sporangium wall components of the rare actinomycete *Actinoplanes missouriensis***

○Satoshi Maeda[1] , Takeaki Tezuka[1,2], Aya mizuike[1], Ryouichi Fukuda[1,2], Moriyuki Hamada[3], Tomohiko Tamura[3], Hiroyuki Horiuchi[1,2], Yasuo Ohnishi[1,2]
([1]Grad. Sch. of Agric. and Life Sci., Univ. of Tokyo, [2] CRIIM, Univ. of Tokyo, [3]NITE・NBRC)

O-8 (P-59) **Two glycoside hydrolases required for sporangium dehiscence in *Actinoplanes missouriensis***

○Kyota Mitsuyama[1], Takeaki Tezuka[1, 2], Yasuo Ohnishi[1, 2]
([1]Grad. Sch. of Agric. and Life Sci. Univ. of Tokyo, [2]CRIIM Univ of Tokyo)

O-9 (P-60) **Analysis of the mechanisms for enhanced cell growth and secondary metabolite production of *Streptomyces* strains in the presence of lincomycin**

○Keiichiro Mukai[1], Misaki Ishizuka[1], Momoko Kobayashi[2], Yu Imai[3], Kozo Ochi, Takeshi Hosaka[1, 2, 4]
([1] Grad. Sch. of Sci. and Technol., Shinshu Univ., [2] Fac. Agric. Shinshu Univ., [3] Northeastern Univ., [4] IBS-ICCER, Shinshu Univ.)

O-10 (P-61) **Automatic discrimination of actinomycete colonies using artificial intelligence**

○Keita Nakashima[1], Hidetoshi Ando[1], Hideki Yamamura[2] , Masayuki Hayakawa[2]
([1]Fac. Engineer. Univ. Yamanashi, [2]Fac. Life Environ. Sci. Univ. Yamanashi)

O-11 (P-62) **Isolation and characterization of actinobacteria derived from deep-sea sediment in Japan**

○Bungonsiri Intra[1], Mihoko Mori[1, 2], Satoshi Ōmura[1], Atsuko Matsumoto[1, 2]
([1]Kitasato Institute for Life Sciences, Kitasato University, [2]Graduate School of Infection Control Sciences, Kitasato University)

O-12 (P-63) **Actinobacteria from forest ecosystems of Northeast India: *In vitro* antimicrobial and biosynthetic potential for polyketides discovery**

○Priyanka Sharma[1], Debajit Thakur[2]
([1]Malaria Drug Discovery Lab, ICGEB, India, [2]Microbial Biotechnology Lab, IASST, India)

10:18 Break

10:30 **Poster Short Presentation (even numbers)**

11:30 **Poster Session (even numbers)**

12:30 Lunch

13:30 **Oral Presentation Session 3**

O-13 **Features of the member of a novel family "*Dictyobacteraceae*" belonging to the class *Ktedonobacteria* that forms sporangium like those of actinomycetes**

○Shuhei Yabe, Yu Zheng, Ciung-Mei Wang, Yasuteru Sakai, Keietsu Abe, Akira Yokota
(Grad. Sch. Agric. Sci., Tohoku Univ.)

O-14 **Reclassification of three strains misidentified as *Streptomyces griseus***

○Hisayuki Komaki, Tomohiko Tamura
(NBRC)

O-15 **Butenolides from *Streptomyces albus* J1074 act as external signals to stimulate avermectin production in *Streptomyces avermitilis***

○Shigeru Kitani[1],Thao Bich Nguyen[1], Shuichi Shimma[2], Takuya Nihira[1]
([1]ICBiotech. Osaka Univ., [2]Grad. Sch. Eng. Osaka Univ.)

O-16 **Analysis of function of antibiotics as an organocatalyst produced by *Streptomyces vietnamensis***

○Tatsuya Nishiyama, Narumi Enomoto, Reina Nagayasu, Hideaki Takano, Kenji Ueda
(Life Science Research Center, College of Bioresource Sciences, Nihon University)

O-17 **Kasugamycin production from cellulosic biomass using cellulose-utilizing streptomycetes**

Ami Sato, Tatsumasa Hibino, Kouhei Sakurada, Yuta Mutaguchi,○Kano Kasuga, Ikuo Kojima
(Akita Prefectural Univ.)

O-18 **Streptopeptolin, a cyanopeptolin type peptide isolated from *Streptomyces olivochromogenes***

○Shinya Kodani[1,2], Hisayuki Komaki[3], Hikaru Hemmi[4], Yuto Miyake[1], Issara Kaweewan[2], Hideo Dohra[5]

([1]Grad. Sch. Integ. Sci., Shizuoka Univ., [2]Grad. Sch. Sci. Tech., Shizuoka Univ., [3]NBRC, [4]NFRI, [5]RIGST)

O-19 **Study on the novel polyketide linfuranones from *Sphaerimonospora mesophila* GMKU363**

○Hirofumi Akiyama[1], Chantra Indananda[2], Arinthip Thamchaipenet[3], Hisayuki Komaki[4], Akira Hosoyama[4], Akane Kimura[4], Naoya Oku[1], Yasuhiro Igarashi[1]

([1]Toyama Prefectural Univ., [2]Burapha Univ., [3]Kasetsart Univ., [4]NBRC.)

15:01 Break

15:30 **Invited Lecture 2**

Nagoya Protocol Implementation- Points about conducting microbial research with overseas-

Mutsuaki Suzuki (National Institute of Genetics, ROIS)

16:20 **Poster Award Ceremony**

16:30 **Closing Remarks**

Poster Session

P-1 **Characterization of a biosurfactant-producing actinomycete isolated from marine sediments in Otsuchi Bay**

○Yukiko Nampo[1], Takuya Naemura[1], Takeshi Terahara[1], Moriyuki Hamada[2], Tomohiko Tamura[2], Takeshi Kobayashi[1], Chiaki Imada[1]

([1]Department of Marine Biosciences, TUMSAT, [2]NBRC/NITE)

P-2 **Phylogenic analysis and secondary metabolite profiling of actinomycetes from deep–sea water in Izu-Akazawa**

○Masayuki Yamada[1], Taehui Yang[2], Enjuro Harunari[1], Katsuhisa Yamada[3], Chiaki Imada[2], Yasuhiro Igarashi[1]

([1]Toyama Pref. Univ., [2]Tokyo Univ. of Marine Sci. and Tech., [3]DHC Co.)

P-3 **Isolation, phylogenic analysis, and secondary metabolite profiling of actinomycetes from the deep seawater of Toyama Bay -2nd report-**

○Sae Kanaki[1], Keiko Ogino[1], Enjuro Harunari[1], Hiroaki Takeuchi[2], Yasuhiro Igarashi[1]

([1]Toyama Pref. Univ., [2]Kochi Univ.)

P-4 **Characterization and taxonomic study of *Micromonospora* sp. KV-964 isolated from plant roots**

○Yunosuke Nakamura[1], Shoici Ikeda[1], Akira Také[2], Satoshi Ōmura[2], Atsuko Matsumoto[1, 2]

([1]Grad. Sch. Infection Control Sci.; [2] Kitasato Inst. Life Sci., Kitasato Univ.)

P-5 **Development of colony imaging technique for automatic discrimination of actinomycete colonies using artificial intelligence**

○Hideki Yamamura[1], Saki Amemiya[1], Hidetoshi Ando[2], Masayuki Hayakawa[1]

([1]Fac. Life Environ. Sci,, Univ. Yamanashi, [2]Fac. Engineer., Univ. Yamanashi)

P-6 **Isolation of *Salinispora* sp. from deep-sea sediments of the Shikoku Basin**

○Dana Ulanova[1,2]

([1]Fac. Agric. Mar. Sci. Kochi Univ., [2]Cent. Adv. Mar. Core Res. Kochi Univ.)

P-7 **Phylogenetic diversity and novelty of actinomycete isolates from ant**

○Hideyuki Muramatsu, Tamami Yoshida, Sayaka Takahashi, Rina Ando, Masayuki Igarashi

(Institute of Microbial Chemistry BIKAKEN)

P-8 **Functional analysis of FliA proteins that control gene expression in sporangia in *Actinoplanes missouriensis***

○Yuichiro Hashiguchi [1], Takeaki Tezuka [1,2], Yasuo Ohnishi [1,2]

([1]Grad. Sch. of Agric. and Life Sci. Univ. of Tokyo, [2]CRIIM Univ. of Tokyo)

P-9 **Homeostatic regulation of nitric oxide by low molecular thiol compounds in *Streptomyces coelicolor***

○Yukiko Shibui, Shinsaku Ito, Syunsuke Yajime, Yasuyuki Sasaki
(Tokyo Univ. Agric.)

P-10 **Nitric oxide regulates antibiotic production via two component system in *Streptomyces coelicolor* A3(2) M145**

○Sota Honma, Shinsaku Ito, Syunsuke Yajima , Yasuyuki Sasaki
(Tokyo Univ. Agric.)

P-11 **Analysis of the mechanism for light-inducible carotenoid production in a *rubber*-degrading bacterium *Gordonia polyisoprenivorans* VH2**

○Yu Tajima, Sakiyama Arata, Tomomi Araki, Satoru Sumi, Hatsumi Takano-Shiratori, Kenji Ueda, Hideaki Takano
(College of Bioresource Sci., Nihon Univ.)

P-12 **Correlation between G protein-coupled receptor-like regulatory system Cvn1 and c-di-GMP signal transduction system in *Streptomyces griseus***

○Erika Mukoyama, Taisuke Amano, Kenji Ueda, Hideaki Takano
(College of Bioresource Sci., Nihon Univ.)

P-13 **Analysis of two light-response mechanisms in *Corynebacterium glutamicum***

○Yuto Suzuki, Mizuki Yasui, Satoru Sumi, Kenji Ueda, Hideaki Takano
(College of Bioresource Sci., Nihon Univ.)

P-14 **Analysis of the mechanism of combined-culture dependent transcriptional activation by *godA* promoter**

○Masataka Kirihara, Shumpei Asamizu, Kazuya Teramoto, Hiroyasu Onaka
(Grad. Sch. Agri. Life Sci., Univ. Tokyo)

P-15 **Analysis of direct interaction between mixed colonies of *Streptomyces variegatus* and *Mycobacterium septicum* from natural soil**

◯Manami Kato, Shumpei Asamizu, Kazuya Teramoto, Hiroyasu Onaka
(Grad. Sch. Agri. Life Sci., Univ. Tokyo)

P-16 **Identification of mutation genes in nonresponsive Streptomyces mutants against mycolic acid-containing bacteria**

Shumpei Asamizu[1],○Takumi Ishizuka[1], Masaomi Yanagisawa[1], Kazuya Teramoto[1], Katsuya Satoh[2], Hiroyasu Onaka[1]
([1]Grad. Sch. Agricultural and Life Sci. Univ. Tokyo, [2]QST)

P-17 **Verification and analysis of the phenomenon that the phenotypic and genetic characteristics of actinomycetes are changed after single colony isolation**

○Ryo Morimoto [1], Tomoko Maruyama [1], Ryoko Hamauzu [2], Shinya Kodani [3], Takeshi Hosaka [1, 2]

([1]Grad. Sch. of Sci. and Technol. Shinshu Univ., [2]IBS-ICCER, Shinshu Univ., [3]Grad. Sch. of Agric. Shizuoka Univ.)

P-18 **Analysis of the dose-dependent response of tylosin on cell growth and secondary metabolism of actinomycetes**

○Momoko Kobayashi[1], Keiichiro Mukai[2], Misaki Ishizuka[2], Yu Imai[3], Takeshi Hosaka[1,2,4]

([1]Fac. Agric. Shinshu Univ., [2]Grad. Sch. of Sci. and Technol., Shinshu Univ., [3]Northeastern Univ., [4]IBS-ICCER, Shinshu Univ.)

P-19 **Analysis of the mechanisms of antibiotic overproduction in *Streptomyces* strains harboring a specific 23S rRNA mutation**

○Kanata Hoshino[1], Yu Imai[2], Ryoko Hamauzu[3], Kozo Ochi, Takeshi Hosaka[3]

([1]Grad, Sch. of Sci. and Technol., Shinshu Univ., [2]Northeastern Univ., [3]IBS-ICCER, Shinshu Univ.)

P-20 **Chemical analysis of peptides produced by marine streptomycete *Streptomyces spongiicola***

○Mana Suzuki[1], Minami Kanda[2], Hideki Yamamura[3], Masayuki Hayakawa[3], Shinya Kodani[1,2]

([1]Grad. Sch. Integ. Sci., Shizuoka Univ., [2]Fac. Agr. Shizuoka Univ.,[3]Fac. Life Environ. Sci, Univ. Yamanashi)

P-21 **Isolation and structure determination of new antibacterial peptide curacomycin based on genome mining**

○Issara Kaweewan[1], Hisayuki Komaki[2], Hikaru Hemmi[3], Shinya Kodani[1]

([1]Grad. Sch. Sci. Tech. Shizuoka Univ., [2]NBRC, [3]NFRI)

P-22 **Isolation of a new lasso peptide lavenducin from *Streptomyces lavenduligriseus***

○Nodoka Nishimura[1], Issara Kaweewan[2], Hiroyuki Nakagawa[3], Shinya Kodani[1,2]

([1]Grad. Sch. Integ. Sci., Shizuoka Univ., [2]Grad. Sch. Sci. Tech., Shizuoka Univ., [3]Advanced Analysis Center, NARO)

P-23 **Biosynthesis of the sulfonamide-containing metabolite in actinomycete**

○Takayoshi Awakawa[1], Zhijuan Hu[1,2], Ikuro Abe[1]

([1]Grad. Sch. Pharm. Univ. of Tokyo, [2]Ocean College, Zhejiang Univ.)

P-24 **Quorum seinsing inhibitor produced by *Streptomyces* sp. TOHO-IJ42 and TOHO-HR54**

○Atsushi Fukumoto, Manami Furukawa, Hirono Mitsuhashi, Yohei Iizaka, Yojiro Anzai
(Fac. Pharmaceutical Sci., Toho Univ.)

P-25 **Studies on multistep oxidation reaction of multifunctional P450 enzyme RosC**

○Yohei Iizaka, Hiroshi Kanai, Tomoko Suzuki, Yuna Maruyama,
Atsushi Fukumoto, Yojiro Anzai
(Fac. Pharmaceutical Sci. Toho Univ.)

P-26 **Screening of *Kutzneria albida* secondary metabolites synthesized using the secondary metabolism-specific nitrous acid biosynthetic pathway**

○Akito Yamada[1], Yohei Katsuyama[1, 2], Yasuo Ohnishi[1, 2]
([1]Grad. Sch. Agric. and Life Sci., Univ. of Tokyo, [2] CRIIM, Univ. of Tokyo)

P-27 **Biosynthesis of iminimycin in *Streptomyces griseus* IFO13350**

○Hayama Tsutsumi[1], Yohei Katsuyama[1,2], Takeaki Tezuka[1,2], Rei Miyano[3],
Yuki Inahashi[3,4], Yōko Takahashi[4], Takuji Nakashima[3,4], Yasuo Ohnishi[1,2]
([1]Grad. Sch. Agri. and Life Sci., Univ. of Tokyo, [2]CRIIM, Univ. of Tokyo, [3]Grad. Sch. Inf. Cont. Sci. Kitasato Univ., [4]Kitasato Inst. Life Sci. Kitasato Univ.)

P-28 **Biosynthesis of the aromatic polyketide yoropyrazone in *Streptomyces* sp. IFM11307**

○Kasumi Fujita[1], Yohei Katsuyama[1,2], Kazufumi Toume[3], Masami Ishibashi[4],
Yasuo Ohnishi[1,2]
([1]Grad. Sch. Agric. And Life Sci. Univ. of Tokyo, [2]CRIIM Univ. of Tokyo, [3]Ins. of Nat. Med. Univ. of Toyama, [4]Grad. Sch. Pharm. Sci. Chiba Univ.)

P-29 **Functional analysis of the genes encoding glycosyltransferase involved in biosynthesis of saprolmycin**

○Takashi Kawasaki[1, 3], Misato Satou[2], Asako Moriyama[2], Nobutaka Imamura[2],
Kazufumi Yazaki[1].
([1]Research Institute for Sustainable Humanosphere, Kyoto Univ, [2]Col. Pharm. Sci, Ritsumeikan Univ, [3]Research Organization of Science and Technology, Ritsumeikan Univ.)

P-30 **Analysis of quinone cofactor involved in antibiotic production**

○Keisuke Hara, Asako Umeshiro, Yusuke Yamauchi, Kenji Arakawa
(Dept. Mol. Biotech., Grad. Sch. AdSM, Hiroshima Univ)

P-31 **Function analysis of a reductase gene *srrG* in secondary metabolic production of *Streptomyces rochei***

○Aiko Teshima, Li Xie, Hiroyuki Kawahara and Kenji Arakawa
(Dept. Mol. Biotech. Grad. Sch. AdSM, Hiroshima Univ.)

P-32 **Genome mining of secondary metabolites by manipulation of the regulatory genes**

○Yuya Misaki, Miyuki Iwakuni, Yuzuru, Takahashi, Toshihiro Suzuki, Haruyasu Kinashi, Kenji Arakawa

(Dept. Mol. Biotechnol., Grad. Sch. AdSM, Hiroshima Univ.)

P-33 **Attempt to acquire unidentified secondary metabolites through comprehensive metabolome analysis**

○Rikito Nishiura, Amirudin Akhmad Fauzi, Yosi Nindita and Kenji Arakawa

(Dept. Mol. Biotech., Grad. Sch. AdSM, Hiroshima Univ.)

P-34 **Analysis of the macrocyclization mechanism of carbocyclic polyketide compounds**

○Hazuki Ogata, Yuji Yukiyoshi , Kenji Arakawa

(Dept. Mol. Biotech. Grad. Sch. AdSM, Hiroshima Univ.)

P-35 **New nanaomycin analogs produced by "*Streptomyces rosa* subsp. *notoensis*" OS-3966**

Hirotaka Matsuo[1,2],○Rei Miyano[2], Yoshihiko Noguchi[1,2], Akira Také[3], Jun Nakanishi[4], Katsumi Shigemura[5], Tomoyasu Hirose[1,2], Toshiaki Sunazuka[1,2], Yōko Takahashi[1], Satoshi Ōmura[1], Takuji Nakashima[1,2]

([1]Kitasato Inst. Life Sci., [2]Grad. Sch. Inf. Cont. Sci. Kitasato Univ., [3]Res. Org. for Nano and Life Innov. Waseda Univ., [4]NIMS, [5]Grad. Sch. Med. Kobe Univ.)

P-36 **GKU257-1A, a new polycyclic xanthone, produced by a marine actinomycete strain, *Streptomyces* sp. GKU257-1**

○Yuki Inahashi[1], Kantinan Leetanasaksakul[2], Takuya Suga[1], Hirotaka Matsuo[1], Rei Hokari[1], Yōko Takahashi[1], Kazuro Shiomi[1], Arinthip Thamchaipenet [2], Takuji Nakashima[1], Satoshi Ōmura[1]

([1]Kitasato Inst. Life Sci., Kitasato Univ., [2] Dep. Genetics, Fac. Sci., Kasetsart Univ.)

P-37 **Enzymatic Studies on the Two Consecutive Hydroxylations involved in Actinorhodin Biosynthesis (4th Report)**

○Akari Hotta[1], Eriko Hoshi[1], Makoto Hashimoto[1], Takaaki Taguchi[2], Kazuki Ishikawa[1], Takuya Kumamoto[3], Susumu Okamoto[4], Koji Ichinose[1]

([1]Fac. of Pharmacy, Musashino Univ., [2]National Institute of Health Sciences, [3]Grad. School of Pharmaceut. Sci., Hiroshima Univ., [4]National Agriculture and Food Res. Organization)

P-38 **Searching for antimicrobial compounds produced by actinomycete antagonistic to *Phialophora gregata* f. sp. *adzukicola***

○Ryosuke Kawamura, Ken Suzuki, Takara Taketani, Hiroshi Kawaide, Masahiro Natsume

(Grad. School of Agric., Tokyo Univ. of Agric. and Technol.)

P-39 **Analysis of kinanthraquinone biosynthetic gene cluster**

○Risa Takao[1,2], Naoko Kito[2], Hiroshi Takagi[2], Toshihiko Nogawa[3], Hiroyuki Osada[1,3], Shunji Takahashi[2]

([1]Saitama Univ. [2]RIKEN CSRS Nat. Prod. Biosynth., [3]RIKEN CSRS Chem. Biol.)

P-40 **Functional analysis of 1-aminocyclopropanecarboxylic acid synthase found in actinomycetes**

○Yukiko Chinone[1], Chitose Maruyama[1], Junko Hashimoto[2], Ikuko Kozone[2], Kazuo Shin-ya[3], Yoshimitsu Hamano[1]

([1]Grad. Sch. Biosci. Biotec. Fukui Pref. Univ., [2]JBIC, [3]AIST)

P-41 **Studies on the biosynthesis of the polyketide FR182877 produced by *Streptomyces***

○Nanase Masuda[1], Kazuo Shin-ya[3], Makoto Nishiyama[1,2], Tomohisa Kuzuyama[1,2]

([1]BRC, [2]CRIIM, UTokyo, [3]AIST)

P-42 **Studies on the biosynthesis of the meroterpenoid phenazinomycin**

○Teruhito Kato[1], Tomoyo Nakao[1], Satoshi Omura[3], Makoto Nishiyama[1,2], Tomohisa Kuzuyama[1,2]

([1]BRC, [2]CRIIM, UTokyo, [3]Kitasato Institute for Life Sciences, Kitasato University)

P-43 **Mechanism of the common deamination in the biosynthesis of meroterpenoids from *Streptomyces***

○Tomohiro Noguchi[1], Makoto Nishiyama[1,2], Tomohisa Kuzuyama[1,2]

([1]BRC, [2]CRIIM, UTokyo)

P-44 **Genome analysis of a D-cycloserine-producing *Streptomyces lavendulae* ATCC11924**

Kento Yaoi[1], Teruo Kuroda[2], Daichi Morita[2], Masanori Sugiyama[2],○Takanori Kumagai[2]

([1]Sch. Pharm. Sci., Hiroshima Univ, [2]Grad. Sch. Biomed. & Health Sci., Hiroshima Univ.)

P-45 **Discovery and functional analyses of β-carboline alkaloid-metabolizing enzyme**

○Toshiki Nagakubo[1], Takuto Kumano[1], Takehiro Ohta[2], Yoshiteru Hashimoto[1], Michihiko Kobayashi[1]

([1]Grad. School of Life and Environ. Sci., Univ. of Tsukuba. [2]Grad. School of Life Sci., Univ. of Hyogo)

P-46 **Screening of red pigment-degrading microorganisms and enzymes**

○Sanae Hori, Takuto Kumano, Yuzu Terashita, Yoshiteru Hashimoto, Michihiko Kobayashi

(Grad. School of Life and Environ. Sci., Univ. of Tsukuba)

P-47 **Exploration of D-peptide degrading enzyme from a poly-D-diaminobutyric acid producer, *Streptoalloteichus hindustanus***

○Hiroki Miyawaki[1], Hibiki Fukumoto[2], Yoshimitsu Hamano[3], Tadao Oikawa[1,2], Kazuya Yamanaka[1,2]

([1]Kansai Univ., [2]Grad. Sch. Sci. Eng. Kansai Univ., [3]Fukui Prefectural Univ.)

P-48 **Cloning of the gene coding for novel PLP-independent diaminobutyric acid racemase involved in Poly-D-diaminobutyric acid biosynthesis**

○Ryo Ozaki[1], Hibiki Fukumoto[2], Yoshimitsu Hamano[3], Tadao Oikawa[1,2], Kazuya Yamanaka[1,2]

([1]Kansai Univ., [2]Grad. Sch. Sci. Eng. Kansai Univ., [3]Fukui Prefectural Univ.)

P-49 **Distribution analysis of actinomycetal secondary metabolites on the 16S rRNA-based phylogenetic tree**

○Enjuro Harunari[1], Hisayuki Komaki[2], Yasuhiro Igarashi[1]

([1]Toyama Pref. Univ., [2]NBRC)

P-50 **Complete nucleotide sequence of a linear chromosome of *Streptomyces rochei* strain 7434AN4**

Yosi Nindita[1],○Kuninobu Inada[2], Amirudin Akhmad Fauzi[1], Aiko Teshima[1], Yuya Misaki[1], Rukman Muslimin[1], Jun Ishikawa[3] , Haruyasu Kinashi[1], and Kenji Arakawa[1]

([1]Dept. Mol. Biotech., Grad. Sch. AdSM, Hiroshima Univ., [2]N-BARD, Hiroshima Univ., [3]NIID)

P-51 **Chemical modification of the bioactive molecules with ε-poly-L-lysine for improving cell membrane permeability and water solubility**

○Yamato Takeuchi[1], Kazunori Ushimaru[2], Yasuo Kato[3], Chitose Maruyama[1], Yoshimitsu Hamano[1]

([1]Grad. Sch. Biosci. Biotec. Fukui Pref. Univ., [2]AIST, [3]Grad. Sch. Eng. Toyama Pref. Univ.)

P-52 **Multiple centrifugation reduces fungal and non-motile bacterial contamination in selective isolation for motile actinomycetes**

○Miho Ezura[1], Hideyuki Muramatsu[2], Masayuki Igarashi[2]

([1]Institute of Microbial Chemistry, BIKAKEN, [2]College of Bioresource Sci., Nihon Univ.)

P-53 **Screening for antimicrobial agents and contamination control in bioethanol production**

○Takanori Matsuda, Hiroto Nishijima, Kouji Yoshida, Kiyotaka Saga, Shin-Ichi Suzuki (Biomaterial in Tokyo, Ltd.)

P-54 **Oral presentation O-3**

P-55 **Oral presentation O-4**

P-56 **Oral presentation O-5**

P-57 **Oral presentation O-6**

P-58 **Oral presentation O-7**

P-59 **Oral presentation O-8**

P-60 **Oral presentation O-9**

P-61 **Oral presentation O-10**

P-62 **Oral presentation O-11**

P-63 **Oral presentation O-12**