

The 90th Annual Meeting of Japanese Society for Bacteriology

Regular Meeting

March 20, Monday 13:50–15:00
Room 1 (Exhibition Hall 1)

Award Lecture

March 20, Monday 15:00–16:00
Room 1 (Exhibition Hall 1)

The type IX secretion system and the type V pilus in the phylum Bacteroidetes

Koji Nakayama (Division of Microbiology and Oral Infection, Department of Molecular Microbiology and Immunology, Nagasaki University Graduate School of Biomedical Sciences)

Special Lecture

SL1

March 19, Sunday 11:00–12:00
Room 1 (Exhibition Hall 1)

Chair: Takaaki Akaike (Tohoku Univ.)

SL1

Oral nitrate-reducing bacteria: the key to cardiovascular health?

○Amrita Ahluwalia (WHRI, BARTS SMD, QMUL, UK)

SL2

March 20, Monday 11:30–12:30
Room 1 (Exhibition Hall 1)

Chair: Koichi Kuwano (Kurume Univ.)

SL2

The Inflammasome: Critical Regulator of Intestinal Microbiota and Inflammatory Disorders

○Hasan Zaki (Department of Pathology, UT Southwestern Medical Center, USA)

Educational Lecture

EL1

March 19, Sunday 13:20–14:20
Room 1 (Exhibition Hall 1)

Chair: Tomohiro Sawa (Kumamoto Univ.)

EL1

History of chemotherapy in Bacteriology Laboratory of Tohoku University

○Hiroshi Maeda (Res. Inst. Drug Del. Sci., Sojo Univ.)

EL2

March 19, Sunday 14:20–15:00
Room 1 (Exhibition Hall 1)

Chair: Yoshiaki Kawamura (Aichi Gakuin Univ.)

EL2

Evolution of acquisition of antimicrobial resistance

○Ken Kikuchi (Department of Infectious Diseases, Tokyo Women's Medical University)

International Symposium (Special Lecture)

IS1 Redox signaling in host defense and oxidative stress

March 20, Monday 8:30–12:30
Room 5 (Meeting Room 4)

Conveners: Takaaki Akaike (Tohoku Univ.)
Tomohiro Sawa (Kumamoto Univ.)

IS1-1

Regulatory mechanism for the superoxide-producing neutrophil NADPH oxidase in host defense

○Hideki Sumimoto (Dept. Biochem., Kyushu Univ. Grad. Sch. Med. Sci.)

IS1-2

DUOX1: A key mediator of allergic host defenses

○Albert van der Vliet (Department of Pathology and Laboratory Medicine, University of Vermont, USA)

IS1-3

KEAP1-NRF2 system in anti-oxidant response and regulation of cell proliferation and senescence

○Hozumi Motohashi (Dept. Gene Exp. Reg., IDAC, Tohoku Univ.)

IS1-4

Mechanisms of redox signaling

○Tobias Peter Dick (German Cancer Research Center, Division of Redox Regulation, Germany)

IS1-5

Regulation of Immunocyte Function by Redox-Sensitive TRP Channels

○Yasuo Mori (Kyoto University Graduate School of Engineering)

IS1-6

A role of nitrative stress in selective autophagy

○Hirokazu Arimoto (Grad. Sch. Life Sci., Tohoku Univ.)

IS2-SL1 Stress responses in environmental and exposure biology

March 21, Tuesday 11:30–12:30

Room 5 (Meeting Room 4)

Chair: Masayuki Yamamoto (Tohoku Univ.)

Cosponsor: Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan

IS2-SL1

Production of mammalian selenoproteins in *E. coli* to facilitate studies of their functions and roles in redox control

○Elias S.J. Arnér (Division of Biochemistry, Department of Medical Biochemistry and Biophysics, Karolinska Institutet, Sweden)

IS2-SL2 Stress responses in environmental and exposure biology

March 21, Tuesday 13:30–14:30

Room 5 (Meeting Room 4)

Chair: Koji Uchida (The Univ. of Tokyo)

Cosponsor: Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan

IS2-SL2

Environmental stress response and Keap1-Nrf2 signaling

○Masayuki Yamamoto (Department of Medical Biochemistry, Tohoku University Graduate School of Medicine)

IS2 Stress responses in environmental and exposure biology

March 21, Tuesday 14:30–18:20

Room 5 (Meeting Room 4)

Conveners: Hozumi Motohashi (Tohoku Univ.)

Takaaki Akaike (Tohoku Univ.)

Cosponsor: Grant-in-Aid for Scientific Research on Innovative Areas, MEXT, Japan

IS2-1

Exposome and sulfur metabolome

○Tomohiro Sawa¹, Takaaki Akaike² (¹Department of Microbiology, Graduate School of Medical Sciences, Kumamoto University, ²Department of Environmental Health Sciences and Molecular Toxicology, Tohoku University School of Medicine)

IS2-2

Regulation of environmental electrophile-mediated signaling by reactive persulfides in heart

○Motohiro Nishida^{1,2,3,4} (¹Div. Cardiocirc. Signal., Okazaki Inst. Integr. Biosci. (Natl. Inst. Physiol. Sci.), ²Dept. Transl. Pharm. Sci., Grad. Sch. Pharm. Sci., Kyushu Univ., ³Dept. Physiol. Sci., SOKENDAI, ⁴PRESTO, JST)

IS2-3

Dynamics and the functional transition of plant peroxisomes under oxidative stress

○Mikio Nishimura¹, Kazusato Oikawa², Shino Goto-Yamada³, Songkui Cui⁴, Shoji Mano¹ (¹National Inst. Basic Biol., ²Fac. Agri., Niigata Univ., ³Malopolska Centre of Biotech., Jagiellonian Univ., ⁴Grad. Sch. Biological Science, Nara Inst. Science and Technology)

IS2-4

Protein carbonyls as a marker of exposome

○Koji Uchida (Graduate School of Agricultural and Life Sciences, The University of Tokyo)

IS2-5

Molecular models of hydrogen sulfide-mediated protection against oxidative stress

○Péter Nagy (Dept. Mol. Immuno. Toxicol. Nat. Inst. Oncol., Hungary)

IS2-6

Environmental electrophiles: Modulation of redox signaling and interaction with persulfides/polysulfides

○Yoshito Kumagai (Environ. Biol. Lab. Fac. Med. Univ. Tsukuba)

Symposium**S1 Autophagy and Bacterial infection**

March 19, Sunday 9:00–11:00

Room 1 (Exhibition Hall 1)

Conveners: Michinaga Ogawa (Natl. Inst. Infect. Dis.)
Ichiro Nakagawa (Kyoto Univ.)

S1-1**Interaction of *Streptococcus pneumoniae* with intracellular bacterial killing system**

○Michinaga Ogawa (Department of Bacteriology I, National Institute of Infectious Diseases)

S1-2**The GTPase Rab35 marks targets of autophagosome by recruiting NDP52**

○Takashi Nozawa, Atsuko Nozawa, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

S1-3**LC3-associated phagocytosis (LAP) is involved in interferon- γ -mediated cell autonomous innate immunity**

○Takeshi Matsuzawa (Grad. Sch. Life Environ. Sci., Osaka Pref. Univ.)

S1-4**Autophagy-related host systems and *Legionella***

○Tomoko Kubori, Andree Hubber, Xuan Thanh Bui, Hiroki Nagai (RIMD, Osaka Univ.)

S1-5**Autophagosome formation in Ref(2)P / p62 dependent selective autophagy in *Drosophila***

○Tamaki Yano (Grad. School Pharm. Sci., Tohoku Univ.)

S1-6**Molecular basis of cargo selection in antibacterial autophagy**

○Hirokazu Arimoto, Daiki Takahashi, Asuka Maeda, Kaori Itto (Grad. Sch. Life Sci., Tohoku Univ.)

S2 Issues related to antimicrobial resistance testing and future prospects

March 19, Sunday 9:00–11:00

Room 2 (Meeting Room 1)

Conveners: Yoshitsugu Inuma (Kanazawa Med. Univ.)
Keigo Shibayama (Natl. Inst. Infect. Dis.)

S2-1**Antibacterial resistance testing; advanced technology and issues in clinical microbiology laboratory**

○Masahiro Toyokawa (Dept. Lab. Med., Tohoku Univ. Hosp.)

S2-2**Detection of the drug-resistant bacteria by the phenotypic analysis in the clinical laboratory**

○Yuki Yamada (Div. Lab., Iwate Med. Univ. Hopi.)

S2-3**Application of multiplex PCR for detecting resistance genes and molecular epidemiology**

○Masahiro Suzuki, Kazuhiro Yamada, Miyako Aoki (Lab. Bacteriol., Aichi Pref. Inst. Pub. Health)

S2-4**Current Status and Perspectives of Next-generation Antimicrobial Susceptibility Testing**

○Tomoo Saga, Ayumi Omokawa, Kotaro Ambo, Naomi Kamada, Mayu Iwaya, Rumi Tatsuko, Tomoe Takahashi, Noriko Kobayashi, Shigeharu Ueki, Makoto Hirokawa (Cent. Lab. Div., Akita Univ. Hosp.)

S3 Young Researchers Workshop**—WAKATE COLOSSEUM—**

March 19, Sunday 9:00–11:00

Room 3 (Meeting Room 2)

Conveners: Shinya Watanabe (Jichi Med. Univ.)
Nozomu Obana (Univ. Tsukuba)

S3-1**Comparative genome analyses of cap-positive and cap-negative *Streptococcus suis* from porcine endocarditis**

○Mari Tohya¹, Takayasu Watanabe¹, Fumito Maruyama²,
Sakura Arai¹, Atsushi Ota², Ichiro Nakagawa², Tsutomu
Sekizaki¹ (¹Res. Center for Food Safety, Grad. Such. Agr. Life Sci.,
Univ. Tokyo, ²Sec. Microbiol., Grad. Sch. Med., Kyoto Univ.)

S3-2**Identification and functional analysis of Stx2 phage-encoded small RNA SesR present in EHEC O157:H7 Sakai**

○Shouichi Mitsunaka¹, Naoki Sudo¹, Sunao Iyoda², Yasuhiko
Sekine¹ (¹Dept. Life Sci., Coll. Sci., Rikkyo Univ., ²Dept.
Bacteriol., Natl. Inst. Infect. Dis.)

S3-3

The effects of the bile acid analogs on the sporulation of *Clostridium perfringens* food poisoning isolates

○Shotaro Hirata¹, Mayo Yasugi¹, Masatoshi Nakatsuji², Takashi Inui², Masami Miyake¹ (¹Lab. Veterinary Public Health, Sch. Life and Environment., Osaka Prefecture Univ., ²Lab. Biological Macromolecules, Sch. Life and Environment., Osaka Prefecture Univ.)

S3-4

Marine bacterial isolate FT01 forms biofilm on stainless steel to escape from iron starvation

○Hiroki Watanabe¹, Tomohiro Inaba², Nozomu Obama³, Yasuyuki Miyano⁴, Nobuhiko Nomura³ (¹Grad. Sch. Life Environ. Sci., Univ. Tsukuba, ²Environ. Manage. Res. Inst., AIST, ³Fac. Life Environ. Sci., Univ. Tsukuba, ⁴Grad. Sch. Eng., Akita Univ.)

S3-5

Episymbiotic association of the deep-sea hydrothermal field endemic crab with hair on its ventral surface

○So Fujiyoshi¹, Shigeki Sawayama¹, Satoshi Nakagawa^{1,2}
(¹Dept. Environ. Microbien., Agric., Kyoto Univ., ²JAMSTEC)

S3-6

Translocation of *Pseudomonas aeruginosa*—10 years fighting history—

○Naoki Hayashi (Dept. of Microbiol. Infect. Control Sci., Kyoto Pharm.)

S3-7

Bacterial surface motility

○Daisuke Nakane (Gakushuin University)

S4 Interface between field epidemiological investigation and bacteriology on infectious disease outbreaks

March 19, Sunday 9:00–11:00
Room 4 (Meeting Room 3)

Conveners: Kazutoshi Nakashima (Daito Bunka Univ.)
Makoto Ohnishi (Natl. Inst. Infect. Dis.)

S4-1

Basics and application of field epidemiological investigation of infectious diseases

○Kazutoshi Nakashima^{1,2} (¹Dept. Health Sci., Fac. Sports Health Sci., Daito Bunka Univ., ²Infect. Dis. Surveil. Center, Natl. Inst. Infect. Dis.)

S4-2

Using for molecular subtyping in Outbreak Investigation

○Yuichiro Yahata (National Institute of Infectious Diseases)

S4-3

Future perspective of molecular epidemiology for *Mycobacterium tuberculosis*

○Junji Seto¹, Takayuki Wada² (¹Dept. Microbiol., Yamagata Pref. Inst. Public Health, ²Dept. Intl. Heal., Inst. Trop. Med., Nagasaki Univ.)

S4-4

Ultra-high resolution molecular epidemiological analysis to reveal the within-outbreak dynamics of pathogens

○Yasuhiro Gotoh¹, Katsuyuki Katahira¹, Dai Yoshimura², Takehiko Itoh², Yoshitoshi Ogura¹, Tetsuya Hayashi¹ (¹Dept. Bact., Fac. Med. Sci., Kyushu Univ., ²Dept. Life Sci. Tech., Tokyo Tech.)

S5 Aero-microbiology

March 19, Sunday 13:20–15:20
Room 2 (Meeting Room 1)

Convener: Fumito Maruyama (Kyoto Univ.)

S5-1

Monitoring of airborne microorganisms

○Daisuke Tanaka, Akihiro Sakatoku, Shogo Nakamura (Grad. Sch. of Sci. and Eng., Univ. of Toyama)

S5-2

Pathogenic Bacteria Traveling with Migratory Birds

Mayumi Kobayashi¹, Qian Zhang², Takahiro Segawa³, Satoshi Okabe¹, ○Satoshi Ishii² (¹Div. Env. Eng., Hokkaido Univ., ²BioTech Inst., Univ. Minnesota, ³Life Sci. Res. Center, Yamanashi Univ.)

S5-3

Drive the pathogens, which cross the borders with bats, into a corner

○Eiichi Hondo (Dept. Anim. Morphol., Nagoya Univ)

S5-4

Atmospheric distribution of drug resistance bacteria—drug resistance genes in snow/ice of the glacier

○Kazunari Ushida¹, Takahiro Segawa² (¹Dept. Appl. Life Sci., Grad Sch Life Envirn. Sci. Kyoto Pref. Univ., ²Center Life Sci. Res., Univ. Yamanashi)

S6 Exploring the processes of translational research: cross-talk between basic research and clinical science

March 19, Sunday 13:20–16:20

Room 3 (Meeting Room 2)

Conveners: Hitoshi Tsugawa (Keio Univ.)
Eiki Yamasaki (Obihiro Univ.)**S6-1****Clinical overview of *Helicobacter pylori* infection**

○Juntaro Matsuzaki (Division of Molecular and Cellular Medicine, National Cancer Center Research Institute)

S6-2**Host-cell response against oncoprotein CagA via autophagy**

○Hitoshi Tsugawa (Dept. Biochem., Keio Univ., Sch. Med.)

S6-3**Epidemiology of *Campylobacter* infection ~from the viewpoint of foodborne infection~**

○Takehisa Chuma (Vet. Public Health, Joint Fac. Vet. Med., Kagoshima Univ.)

S6-4**Environmental responses of *Campylobacter jejuni* for survival and habitation**○Hiroshi Asakura¹, Eiki Yamasaki², Yoshiko Konishi³, Shizunobu Igimi⁴, Shigeki Yamamoto⁵ (¹Div. Biomed Food Res., Nat. Inst. Health Sci., ²Dept. Food Hygiene, Obihiro Univ. Agri. Vet. Med., ³Sch. Life and Env. Sci., Azabu Univ., ⁴Dept. Microbiol., Tokyo Univ. Agri., ⁵Dept. Food Sci., Tokai Univ.)**S6-5****Clinical problems about Enterohemorrhagic *Escherichia coli* infection**

○Shunsuke Uno (Center for Infect. Dis. and Infect. Control, Sch. Med., Keio Univ.)

S6-6**Study of Shiga-toxigenic *Escherichia coli*-produced Subtilase cytotoxin**

○Kinnosuke Yahiro (Department of Molecular Infectiology, Graduate School of Medicine, Chiba University)

S7 Dissemination of Antibiotic Resistant Bacteria in a Community

March 19, Sunday 13:20–15:20

Room 4 (Meeting Room 3)

Conveners: Yoshimasa Yamamoto (Osaka Pref. Inst. Public Health)
Shinji Yamasaki (Osaka Pref. Univ.)**S7-1****Wide dissemination of ESBL-producing bacteria in a community of developing country**

○Yoshimasa Yamamoto (Osaka Prefectural Institute of Public Health)

S7-2**Transfer of Antimicrobial resistance (AMR) gene into bacterial genome by insertion sequence**

○Itaru Hirai, Kouta Hamamoto (Lab. Microbiol., Sch Health Sci., Facul. Med., Univ. the Ryukyus)

S7-3**Effect of cephem antibiotics on emergence of highly and multi-drug resistant ESBL-producing *E. coli***

○Shinji Yamasaki (Department of Veterinary Science Graduate School of Life and Environmental Sciences Osaka Prefecture University)

S7-4**Surveillance and control of antimicrobial resistance in Japan**

○Haruo Watanabe (International University of Health and Welfare)

S7-5**NARMS: A Tool for One-Health Surveillance of Resistant Bacteria**

○Heather P.G. Tate, Patrick F. McDermott (NARMS, Center for Vet. Med., U.S.F.D.A., USA)

S8 Adaptable microorganisms provide a novel insight into life

March 19, Sunday 15:20–17:20

Room 2 (Meeting Room 1)

Conveners: Kenji Ohya (Gifu Univ.)
Ryo Nakao (Hokkaido Univ.)**S8-1****Insights into the survival strategy of ultra-small bacteria**

○Ryosuke Nakai (Genet. Strains Res. Ctr., Natl. Inst. Genet.)

S8-2

“Ubiquity” of *Aspergillus fumigatus* contributes acquisition of drug resistance and spreading to the world

○Takahito Toyotome^{1,2} (¹Diagn. Cent. Anim. Health Food Saf., Obihiro Univ. Agric. Vet. Med., ²Med. Mycol. Res. Cent., Chiba Univ.)

S8-3

Analysis of endosymbiotic mechanisms between *Legionella* and protist hosts using *Paramecium* model

○Kenta Watanabe, Takashi Shimizu, Masahisa Watarai (Grad. Sch., Vet. Sci., Yamaguchi Univ.)

S8-4

Conflicting molecular interactions between host and *Plasmodium* liver-stage parasite: a fight for supremacy

○Takeshi Annoura¹, Tamasa Araki^{1,2}, Satoru Kawai³, Rahel Wacker⁴, Blandine M.D. Franke-Fayard⁵, Chris J. Janse⁵, Shahid M. Khan⁵, Volker T. Heussler⁴, Tomoyoshi Nozaki^{1,2}

(¹Department of Parasitology, National Institute of Infectious Diseases, ²Graduate School of Life and Environmental Sciences, University of Tsukuba, ³Laboratory of Tropical Medicine and Parasitology, Dokkyo Medical University, ⁴Universitat Bern, Switzerland, ⁵Leiden University Medical Center, Netherlands)

S8-5

Host adaptation of influenza A viruses

○Masaki Imai (Division of Virology, Department of Microbiology and Immunology, Institute for Medical Science, The University of Tokyo)

S9 Variety of Research Approach Visualizes Attractiveness of Mycobacteriology

March 19, Sunday 15:20–17:20
Room 4 (Meeting Room 3)

Conveners: Takayuki Wada (Nagasaki Univ.)
Shintaro Seto (RIT, JATA)

S9-1

Comprehensive approach to mycobacterial diseases, using human and pathogenic genome information

○Naoto Keicho (Dept. Pathophysiology and Host Defense, The Research Institute of Tuberculosis, JATA)

S9-2

Mycobacteriosis Surveillance Network on One Health in Asia

○Tokuma Yanai¹, Shiomi Yoshida^{2,3}, Takayuki Wada⁴ (¹Dept. Vet. Patholog., Sch. Appl. Biol. Sci., Gifu Univ., ²Clin. Res. Ctr., NHO Kinki-Chuo Chest Med. Ctr., ³Dept. Intl. Heal., Sch. Biomed Sci., Nagasaki Univ., ⁴Dept. Intl. Heal., Inst. Trop. Med., Nagasaki Univ.)

S9-3

Epidemiology of pulmonary nontuberculous mycobacterial disease in Japan and the rest of the world

○Kozo Morimoto (Respiratory Disease Center)

S9-4

Identification of novel activating receptor for mycobacteria

○Kenji Toyonaga¹, Hiromitsu Hara¹, Sho Yamasaki² (¹Dept. Immunol., Grad. Sch., Med. & Dent. Sci., Kagoshima Univ., ²Div. Mol. Immunol., Med. Inst. Bioreg., Kyushu Univ.)

S10 Infectious Diseases and Bioterrorism

March 20, Monday 8:30–10:30

Room 1 (Exhibition Hall 1)

Conveners: Shigeru Morikawa (Natl. Inst. Infect. Dis.)
Tetsuya Iida (Osaka Univ.)

S10-1

Smallpox and bioterrorism

○Tomoki Yoshikawa (Department of Virology I, National Institute of Infectious Diseases)

S10-2

***Bacillus anthracis*, one of the most likely agents to be used in bioterrorism**

○Akiko Okutani, Shiregu Morikawa (Dept. Vet.Sci., NIID)

S10-3

Detection methods against the bacteria and toxins for the potential means of bioterrorism

○Eiki Yamasaki¹, Kayo Okumura¹, Takayuki Ezaki², Hisao Kurazono¹ (¹Dept. Anim. Food Hyg., Obihiro Univ., ²GCMR, Gifu Univ.)

S10-4

Enhanced Surveillance for Infectious Diseases During A Mass Gathering Event: Our Experience in Ise-Shima Summit Meeting

○Yoshihiro Fujiya (National Institute of Infectious Diseases)

S10-5

Bioterrorism Preparedness in Japan

○Tomoya Saito (Dept. Health Crisis Management, Natl. Inst. Public Health)

S11 Sleeping microbes: what do we know about them?

March 20, Monday 8:30–11:30
Room 2 (Meeting Room 1)

Conveners: Hideyuki Tamaki (Bioproduction Res. Inst., AIST)
Shin Haruta (Tokyo Metropolitan Univ.)

S11-1**Ecophysiology of the deep subseafloor biosphere with new analytical technologies**

○Yuki Morono^{1,2}, Takeshi Terada³, Tatsuhiko Hoshino^{1,2}, Motoo Ito^{1,2}, Fumio Inagaki^{1,2,4} (¹Kochi, JAMSTEC, ²R&D Cent. Submar. Resour., JAMSTEC, ³Marine Works Japan, ⁴ODS, JAMSTEC)

S11-2**Bacterial cellular energy for survival under non-growing conditions**

○Nanako Kanno, Katsumi Matsuura, Shin Haruta (Dept. Bio. Science, Tokyo Metropolitan Univ.)

S11-3**Survival of *Staphylococcus aureus* under dry conditions: possible involvement of *esp* genes**

○Kazuya Morikawa, Vishal Samir Gor, Aya Takemura, Lisa Maudsdotter (Bacteriol. Fac. Med. Univ. Tsukuba)

S11-4**A hidden mechanism behind dormancy and resuscitation of actinobacteria**

○Manabu Kanno¹, Hideyuki Tamaki¹, Souichiro Kato^{1,2}, Wataru Kitagawa^{1,2} (¹Bioproduction Research Institute, AIST, ²Graduate School of Agriculture, Hokkaido Univ.)

S12 Animal pathogenic bacteria: Discoveries of atypical groups

March 20, Monday 8:30–10:30
Room 4 (Meeting Room 3)

Convener: Masahiro Kusumoto (Natl. Inst. Anim. Health, NARO)

S12-1**Emergence of a novel multidrug-resistant pathogenic *Escherichia coli* lineage in swine**

○Masahiro Kusumoto (Natl. Inst. Anim. Health, NARO)

S12-2**Genome-wide analysis of *Erysipelothrix rhusiopathiae* strains from cases of acute and chronic swine erysipelas**

○Yoshihiro Shimoji, Yohsuke Ogawa, Kazumasa Shiraiwa, Sayaka Nishikawa, Masahiro Eguchi (National Institute of Animal Health, NARO)

S12-3**Atypical *Actinobacillus pleuropneumoniae* of which serotyping and genotyping results are inconsistent**

○Hiroya Ito, Masahiro Kusumoto (Natl. Inst. Anim. Health., NARO)

S12-4**Discovery of *Melissococcus plutonius* with atypical phenotypes and development of a detection method**

○Daisuke Takamatsu^{1,2} (¹Division of Bact./Parasit. Dis., NIAH, NARO, ²Utd. Grad. Sch. Vet. Sci., Gifu Univ.)

S13 Bacterial infection from the point of view of Host Defense Research

March 20, Monday 16:10–18:10
Room 1 (Exhibition Hall 1)

Conveners: Goro Matsuzaki (Univ. Ryukyu)
Kazuyoshi Kawakami (Tohoku Univ.)

S13-1**Dysbiosis of gut microbiota in *Drosophila***

○Shun-ichiro Kawabata (Dept. Biol. Fac. Sci. Kyushu Univ.)

S13-2**Discovery of novel cysteine persulfide synthase ubiquitously distributed from bacteria to eukaryotes**

○Tomoaki Ida, Takaaki Akaike (Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med.)

S13-3**NKT_{FH} cells induce the protective effect of protein and glycolipid vaccine against pneumococcal infection**

○Yuki Kinjo¹, Makiko Nakahara^{1,2}, Shogo Takatsuka¹, Masahiro Abe¹, Keigo Ueno¹, Bin Chang¹, Zhenyu Piao³, Yukihiro Akeda⁴, Kazuyoshi Kawakami⁵, Kazunori Oishi¹ (¹Nat. Inst. Infect. Dis., ²Waseda Univ., ³BIKEN, ⁴Osaka Univ., ⁵Tohoku Univ.)

S13-4 **$\gamma\delta$ T cells—From the view point of primitive T cells—**

○Yasunobu Yoshikai (Div. Host Defense, Med. Inst. Bioreg. Kyushu Univ.)

S14 Leading-edge study on the enterohepatic *Helicobacter* related infections

March 20, Monday 16:10–18:10

Room 2 (Meeting Room 1)

Conveners: Yoshiaki Kawamura (Aichi Gakuin Univ.)
Hideki Araoka (Toranomon Hospital)

S14-1

Taxonomic analysis of the genus *Helicobacter*: A survey on the strains of *H. cinaedi*

- Junko Tomida, Yuji Morita, Yoshiaki Kawamura (Dept. Microbiol., Sch. Pharm., Aichi Gakuin Univ.)

S14-2

***Helicobacter cinaedi* infection and promotion of development of arteriosclerosis**

- Tetsuro Matsunaga¹, Shigemoto Fujii¹, Tomohiro Sawa², Yoshiaki Kawamura³, Takaaki Akaike¹ (¹Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ³Dept. Microbiol., Sch. Pharmacy, Aichi-Gakuin Univ.)

S14-3

Enterohepatic *Helicobacter* infections in humans: A review of the literature

- Hideki Araoka (Dept. Infectious Diseases, Toranomon Hospital)

S14-4

Hepatobilinary disease and *Helicobacter hepaticus* infection

- Kenji Yokota (Graduate School of Health Science Okayama University)

S14-5

Overview of the study on *Helicobacter* spp. as zoonosis ~from veterinary perspective~

- Sanae Kubota-Aizawa, Koichi Ohno (Dept. Vet. Intern. Med., Grad. Sch. Agric. Life Sci., Tokyo Univ.)

S15 Heterogeneous Bacteriology: Survival Strategy Based on Phenotypic Heterogeneity in Clonal Bacterial Population

March 20, Monday 16:10–18:10

Room 3 (Meeting Room 2)

Conveners: Satoshi Tsuneda (Waseda Univ.)
Hideaki Maseda (Tokushima Univ.)

S15-1

Unique single-cell histories that adapt to antibiotic stress

- Yuichi Wakamoto (Grad. Sch. Arts. Sci., Univ. Tokyo)

S15-2

Bistability in a clonal microbial population

- Ryo Miyazaki^{1,2} (¹Biopro. Res. Inst., AIST, ²Facult. Lif. Environ. Sci., Univ. Tsukuba)

S15-3

Stochastic expression of lactate dehydrogenase causes *E. coli* persister formation

- Yuto Kawai¹, Rino Isshiki¹, Naoki Yamamoto¹, Yiwei Ling², Shujiro Okuda², Shinya Matsumoto^{1,3}, Satoshi Tsuneda¹ (¹Dep. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ., ²Grad. Sch. of Medical and Dental Sci., Niigata Univ., ³Grad. Sch. of Medicine, Nagoya Univ.)

S15-4

Expression noise of multidrug efflux pump leads *Pseudomonas aeruginosa* to antibiotics resistant

- Hideaki Maseda (Facul. Biosci. Bioindust., Tokushima Univ.)

S15-5

Clinical Significance of Antibiotic Tolerance in Respiratory Tract Infection caused by *Pseudomonas aeruginosa*

- Keiji Murakami¹, Takashi Amoh¹, Katsuhiko Hirota¹, Keiko Kataoka², Yoichiro Miyake¹ (¹Dept. Oral Microbiol., Biomed Sciences, Tokushima Univ., ²Dept. Microbiol. Genetic Analysis., Biomed Sciences, Tokushima Univ.)

S16 Research progress in the field of tick-borne bacterial infectious diseases in Japan

March 20, Monday 16:10–18:10

Room 4 (Meeting Room 3)

Conveners: Shuji Ando (Natl. Inst. Infect. Dis.)
Tetsuya Hayashi (Kyushu Univ.)

S16-1

Emerging tick-borne borreliosis

- Hiroki Kawabata (National Institute of Infectious Diseases)

S16-2

Emerging tick-borne anaplasmosis

- Norio Ohashi (Lab. Microbiol., Sch. Food Nutri., Univ. Shizuoka)

S16-3

A nation-wide, high resolution phylogenomic analysis of *R. japonica*

- Tetsuya Hayashi (Dept. Bacteriol., Fac. Med Sci., Kyushu Univ.)

S16-4**The role of tick saliva-derived factors in pathogen transmission**

○Satoru Konnai¹, Takuya Ito², Ai Takano³, Hiroki Kawabata⁴, Shuji Ando⁴, Shiro Murata¹, Kazuhiko Ohashi¹ (¹Graduate School of Veterinary Medicine, Hokkaido University, ²Hokkaido Institute of Public Health, ³Department of Veterinary Medicine, Joint Faculty of Veterinary Medicine, Yamaguchi University, ⁴National Institute of Infectious Diseases)

S17 Current problems and prospects of development of new antibacterial agents**—How can we research and develop new antibacterial agents against resistant bacteria?—**

March 21, Tuesday 8:30–11:00

Room 1 (Exhibition Hall 1)

Conveners: Keiji Hirai (Kyorin Pharmaceutical Co., Ltd.)
Mitsuo Kaku (Tohoku Univ.)

S17-1**Problems of development of the antimicrobial agent in Japan**

○Shigeru Fujimura (Div. Clin. Infect. Dis. Chemother., Fac Pharm Sci., Tohoku Med. Pharm. Univ.)

S17-2**Actions by the industries for the discovery of new antibiotics**

○Yoshinori Yamano (Pharmaceutical Research Division, Shionogi & Co., Ltd.)

S17-3**Challenges to accelerate development of antimicrobial agents**

○Junko Sato (Pharmaceuticals and Medical Devices Agency)

S17-4**Approach and efforts against antimicrobial resistance (AMR) by Japanese Society for Bacteriology**

○Shigeru Kamiya (Dept. Infect. Dis., Sch. Med., Kyorin Univ.)

S18 Can researchers find joy both at work and at home?

March 21, Tuesday 8:30–10:30

Room 2 (Meeting Room 1)

Conveners: Kasumi Kuroki (Univ. Tokyo)
Lisa Nonaka (Dokkyo Med. Univ.)
Fuhito Hojo (Kyorin Univ.)

S18-1**Message from a senior**

○Tomoko Yamamoto (Medical Mycology Research Center, Chiba University)

S18-2**Work-life balance between Research and Childcare**

○Miki Kawada-Matsuo (Dept. Oral Microbiol., Grad. Sch. Med. and Dent, Kagoshima Univ.)

S18-3**Survival Skills for Researchers**

○Akio Abe (Laboratory of Bacterial Infection, Graduate School of Infection Control Sciences, Kitasato University)

S18-4**Thinking about career building of female researchers from a family member's point of view**

○Yasuhiro Matsumoto (Teikyo Univ. Inst. of Med. Mycol.)

S19 Function of bacterial proteins revealed by the structural analysis

March 21, Tuesday 8:30–10:30

Room 3 (Meeting Room 2)

Conveners: Seiji Kojima (Nagoya Univ.)
Michio Homma (Nagoya Univ.)

S19-1**Structure and function of the energy-converting membrane protein complex**

○Seiji Kojima (Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ.)

S19-2**Structure and function of the proton-driven protein translocation motor**

○Yoshiki Tanaka¹, Arata Furukawa¹, Takaharu Mori², Hiroyuki Mori³, Yusuke V Morimoto⁴, Yasunori Sugano¹, Shigehiro Iwaki¹, Tohru Minamino⁵, Yuji Sugita², Tomoya Tsukazaki¹

(¹Dept. Sys. Bio., Grad. Sch. Biol. Sci., NAIST, ²Theor. Mol. Sci., RIKEN, ³Inst. Vir. Res., Kyoto Univ., ⁴QBiC, RIKEN, ⁵FBS, Osaka Univ.)

S19-3

Structure and mechanism of proteins from piezophiles

○Nobuhisa Watanabe^{1,2}, Takayuki Nagae¹, Yuki Hamajima⁴, Chiaki Kato³ (¹SRRC, Nagoya Univ., ²Grad. Sch. Eng., Nagoya Univ., ³Biodive, JAMSTEC, ⁴Grad. Sch. Sci., Rikkyo Univ.)

S19-4

Structure and Function of ATPase

○Takeshi Murata^{1,2} (¹Dept. Chemistry, Sch. Sci., Chiba Univ., ²JST, PRESTO)

S19-5

Structural insight into the molecular mechanism of the bacterial flagellar type III export

○Katsumi Imada (Dept. Macromol., Sch. Sci., Osaka Univ.)

S19-6

Replicative helicase complex in the archaeal/eukaryotic DNA replication machinery

○Yoshizumi Ishino (Protein Chem. Eng., Grad. Sch. Bioresource Bioenviron. Sci., Kyushu Univ.)

S20 Novel advances in configures produced by bacterial population and their regulation systems

March 21, Tuesday 8:30–12:00

Room 4 (Meeting Room 3)

Conveners: Yasufumi Hikichi (Kochi Univ.)
Shinya Sugimoto (Jikei Univ.)

S20-1

Novel functions of biofilm matrix components

○Shinya Sugimoto^{1,2}, Akio Chiba^{1,2}, Reina Miyakawa¹, Akari Terao¹, Keigo Yonemoto¹, Yoshimitsu Mizunoe^{1,2} (¹Dept. Bacteriol., Jikei Univ. Sch. Med., ²Jikei Cent. Biofilm Res. Technol., Jikei Univ. Sch. Med.)

S20-2

Role of toxins on the cell surface of *Staphylococcus aureus*

○Chikara Kaito (Lab. Immun. Microbiol., Grad. Pharm., Univ. Tokyo)

S20-3

Iron starvation response and biofilm formation in the bladder epithelial cells in uropathogenic *E. coli* (UPEC)

○Hidetada Hirakawa (Gunma University, Advanced Scientific Research Leaders Development Unit)

S20-4

Metabolomic shifts during periodontopathic microbiome maturation

○Masae Kuboniwa (Dept. Prev. Dent., Grad. Sch. Dent., Osaka Univ.)

S20-5

Characterization of biofilm formation by *Methylobacterium* species isolated from pink-pigmented biofilms

○Tomohiro Morohoshi, Tsukasa Ikeda (Dept. Mol. Environ., Grad. Sch. Eng., Utsunomiya Univ.)

S20-6

Environmental factors regulating biofilm structure formation

○Nozomu Obana, Masanori Toyofuku, Nobuhiko Nomura (Fac. Life Environ. Sci., Univ. Tsukuba)

S20-7

Hierarchical cell-to-cell communication in the plant pathogen *Ralstonia solanacearum*

○Kenji Kai¹, Yasufumi Hikichi² (¹Osaka Prefecture Univ., ²Kochi Univ.)

S21 New insights into bacterial pilus study

March 21, Tuesday 8:30–11:30

Room 5 (Meeting Room 4)

Conveners: Koji Nakayama (Nagasaki Univ.)
Makoto Miyata (Osaka City Univ.)

S21-1

The type V pili in the Bacteroidia class bacteria: novel assembly mechanism

○Mikio Shoji¹, Qingping Xu², Satoshi Shibata¹, Mariko Naito¹, Keiko Sato¹, Ian A Wilson³, Koji Nakayama¹ (¹Dept. Microbiol. Oral Infect., Grad. Sch. Biomed. Sci., Nagasaki Univ., ²SLAC Nat. Acc. Lab., USA, ³The Scripps Res. Ins., USA)

S21-2

AtaA, a new trimeric autotransporter adhesin mediating strong and nonspecific adhesion of bacterial cells

○Katsutoshi Hori (Dept. Biotechnol., Eng., Nagoya Univ.)

S21-3

Type IV pilus structure and assembly of human enterotoxigenic *Escherichia coli*

○Shota Nakamura¹, Kazuki Kawahara², Hiroya Oki^{1,2}, Tetsuya Iida¹ (¹Research Institute for Microbial Diseases, Osaka University, ²Graduate School of Pharmaceutical Sciences, Osaka University)

S21-4

Detection of rotation and steps of the archaellum in the swimming halophilic archaeon *Halobacterium salinarum*

○Yoshiaki Kinoshita¹, Nariya Uchida², Daisuke Nakane¹, Takayuki Nishizaka¹ (¹Department of physics, ²Department of physics)

S21-5***Pseudomonas aeruginosa* injects type III effector ExoS into host cells through a retraction of type IV pili**

○Naoki Hayashi, Naomasa Gotoh (Dept. of Microbiol. Infect. Control Sci., Kyoto Pharm.)

S21-6**Architecture of type IVa and IVb pilus machines**

○Yi-Wei Chang¹, Lee A Rettberg¹, Anke Treuner-Lange², Janet Iwasa³, Lotte Søgaard-Andersen², Andreas Kjær⁴, Davi R Ortega¹, Gabriela Kovacikova⁵, John A Sutherland⁵, Ronald K Taylor¹, Grant J Jensen¹ (¹California Institute of Technology, ²Max Planck Institute for Terrestrial Microbiology, ³University of Utah, ⁴University of Southern Denmark, ⁵Geisel School of Medicine at Dartmouth)

S22 Microbial Dynamics: High-Dimensional Integrated Microbial Science and Novel Regulation Theories

March 21, Tuesday 10:30–12:30
Room 2 (Meeting Room 1)

Conveners: Hiroyuki Yamaguchi (Hokkaido Univ.)
Masaaki Morikawa (Hokkaido Univ.)

S22-1**Air-borne Microbiome Transport around Human Body Analyzed with Fluid Dynamics**

○Shinsuke Kato (Institute of Industrial Science, the University of Tokyo)

S22-2**Movement of amoebal endosymbionts by exploiting human behavior, a potential risk factor in hospital infections**

○Junji Matsuo¹, Shinji Nakamura², Torahiko Okubo¹, Hiroyuki Yamaguchi¹ (¹Dept. Med. Lab. Sci., Fac. Health Sci., Hokkaido Univ., ²Div. Biomed. Imag. Res., Juntendo Univ. Grad. Sch. Med.)

S22-3**Biofilm and material surface: Can we control bacterial adhesion, detachment and biofilm formation?**

○Akihiko Terada (Department of Chemical Engineering, Tokyo University of Agriculture & Technology)

S22-4**NDM-producing *E. coli* in Hokkaido University Hospital: ciliate-mediated promotion of plasmid transfer**

○Torahiko Okubo¹, Mizue Matsushita², Junji Matsuo¹, Hiroyuki Yamaguchi¹ (¹Dept. Med. Lab. Sci., Fac. Health Sci., Hokkaido Univ., ²Faculty Health Sci. Hokkaido Univ.)

S22-5**One Health; Can we control the dissemination of antimicrobial resistant bacteria from animal to human?**

○Yutaka Tamura (School Vet. Med., Rakuno Gakuen Univ.)

S23 Bacteriology lessons learned from cases

March 21, Tuesday 10:30–12:00
Room 3 (Meeting Room 2)

Conveners: Shioko Saito (Akita Research Center for Public Health and Environment)
Satowa Suzuki (Nat'l. Inst. Infect. Dis.)

S23-1**Nosocomial Outbreaks of antimicrobial-resistant bacteria and the role of municipal public health institutes**

○Satowa Suzuki (Dept. Bacteriol. II, National Institute of Infectious Disease)

S23-2**Examples of drug-resistant bacteria and challenges for local control in Osaka**

○Ryuji Kawahara¹, Takahiro Yamaguchi¹, Shihono Teruya¹, Rumiko Asada², Reiko Hazama³, Norihisa Yamamoto⁴, Yukihiro Akeda⁴, Yuko Kumeda¹, Tetsuo Kase⁵, Kazunori Tomono⁴ (¹Dep. Infect. Dis., Osaka Prefectural Institute of Public Health, ²Dep. Public Health Med. Affairs., Osaka pref., ³Ibaragi Health center, Osaka pref., ⁴Div. Infect. Cont. Prev., Osaka Univ. Hosp., ⁵Dep. Public Health, Osaka City Univ. Grad. Sch. Med.)

S23-3**A suspected case of plasmid-mediated horizontal transfer of beta-lactamase genes among enterobacteriaceae**

○Hiroaki Kubota¹, Yasunori Suzuki¹, Rumi Okuno¹, Yumi Uchitani¹, Satowa Suzuki², Mari Matsui², Yuho Horikoshi³, Takayuki Shinkai¹, Kenji Sadamasu¹ (¹Tokyo Metropolitan Institute of Public Health, ²National Institute of Infectious Diseases, ³Tokyo Metropolitan Children's Medical Center)

S23-4**Molecular epidemiology of MRSA using PCR-based ORF typing**

○Masahiro Suzuki, Hiromi Shiratori, Miyako Aoki, Yumiyo Tanaka (Lab. Bacteriol., Aichi Pref. Inst. Pub. Health)

S24 Anaerobic pathogens: an up to date

March 21, Tuesday 13:30–15:30
Room 1 (Exhibition Hall 1)

Conveners: Tomomi Kuwahara (Kagawa Univ.)
Mariko Naito (Nagasaki Univ.)

S24-1

***Clostridium perfringens* alpha-toxin-induced impairment of innate immunity**

○Masaya Takehara, Masahiro Nagahama (Dept. Microbiol., Fac. Pharm. Sci., Tokushima Bunri Univ.)

S24-2

Intestinal absorption mechanisms of type A and type B botulinum toxin

○Takuhiro Matsumura¹, Yo Sugawara², Masahiro Yutani¹, Sho Amatsu^{1,2}, Yukako Fujinaga¹ (¹Dept. Bacteriol., Sch. Med., Kanazawa Univ., ²Lab. Infect. Cell Biol., RIMD, Osaka Univ.)

S24-3

Development of vaccine for *Clostridium difficile* infection

○Mitsutoshi Senoh (Dept. Bacteriol. II, Natl. Inst. Infect. Dis.)

S24-4

The significance of *P. gingivalis* gingipains on Periodontal diseases

○Masaaki Nakayama^{1,2}, Mariko Naito³, Koji Nakayama³, Naoya Ohara^{1,2} (¹Dept Oral Microbiol, Okayama Univ. Grad. Sch. Med, Dent, Pharmaceut. Sci., Okayama, Japan, ²ARCOCS, ³Div. Microbiol. Oral Infect., Nagasaki Univ. Grad. Sch. Biomed. Sci., Nagasaki Japan)

S24-5

Bacteroides

○Kaori Tanaka (Div. Anaerobe Res., Life Sci. Res. Ctr., Gifu Univ.)

S25 Microfluidics Expanding the Frontiers of Microbial Ecology

March 21, Tuesday 13:30–15:30
Room 2 (Meeting Room 1)

Conveners: Nobuhiko Nomura (Univ. of Tsukuba)
Sayaka Mino (Hokkaido Univ.)

S25-1

Chemotactic responses of *Euglena gracilis* observed in microfluidic devices

○Kazunari Ozasa (Bioeng. Lab., RIKEN)

S25-2

Visualization of biofilm formation by using microdevices

○Nobuhiko Nomura¹, Masanori Toyofuku¹, Nozomu Obana¹, Tatsunori Kiyokawa², Junji Fukuda³ (¹Fac. Life Environ. Sci., Univ. Tsukuba, ²Grad. Sch. Life Environ. Sci., Univ. Tsukuba, ³Coll. Eng., Yokohama National Univ.)

S25-3

In House Robotic Technologies to Study Behavioral Ecology of Environmental Microbes

○Yutaka Yawata (Grad. Sch. of Life and Environ. Sci., Univ. of Tsukuba)

S25-4

Microdevice technology for cell/microbiome research

○Shoji Takeuchi (IIS, Univ. of Tokyo)

S26 A multi-faceted analysis and in developing inhibitors of Multidrug efflux transporter

March 21, Tuesday 13:30–15:30
Room 4 (Meeting Room 3)

Conveners: Kunihiko Nishino (Osaka Univ.)
Mikio Tanabe (SBRC, IMSS, KEK)

S26-1

Structural insight into conformational switching mechanism by MFS-type multidrug resistance transporter MdfA

○Mikio Tanabe (SBRC, IMSS, KEK)

S26-2

Highly sensitive analysis of transporter activities by using artificial cell-membrane microsystem

○Rikiya Watanabe^{1,2,3} (¹Department of Applied Chemistry, The University of Tokyo, ²PRESTO, JST, ³PRIME, AMED)

S26-3

Structure and mechanism of RND-type multidrug transporters

○Ryosuke Nakashima, Keisuke Sakurai, Akihito Yamaguchi (ISIR, Osaka Univ.)

S26-4

Development of novel inhibitors for multidrug efflux transporters

○Seiji Yamasaki¹, Katsuhiko Hayashi^{1,2}, Yuta Inoue³, Yusuke Higuchi³, Keisuke Sakurai², Ryosuke Nakashima², Nobuo Kato³, Akihito Yamaguchi², Kunihiko Nishino¹ (¹Dept. Biomol. Sci. & Regul., ISIR, Osaka Univ., ²Dept. Cell Memb. Struct. Biol., ISIR, Osaka Univ., ³Dept. Organic Fine Chem., ISIR, Osaka Univ.)

S26-5**Berberine attenuates efflux-mediated aminoglycoside resistance of *Pseudomonas aeruginosa***

○Yuji Morita, Junko Tomida, Yoshiaki Kawamura (Dept. Microbiol., Sch. Pharm., Aichi Gakuin Univ.)

S26-6**Development of a novel screening system targeting bacterial virulence and multi-antibiotic efflux pump**

○Hiroshi Yoneyama¹, Hideaki Maseda² (¹Dept. Microbial Biothechnol., Tohoku Univ., ²Dept. Biosci. Bioind., Tokushima Univ.)

S27 Symbiotic organelle as ultimate form of bacterial evolution

March 21, Tuesday 15:30–17:30

Room 1 (Exhibition Hall 1)

Conveners: Kisaburo Nagamune (Nat'l. Inst. Infect. Dis.)
Hiroki Nagai (RIMD, Osaka Univ.)

S27-1**Reductive genome evolution in non-photosynthetic plastids**

○Ryoma Kamikawa (Graduate School of Global Environmental Studies, Kyoto University)

S27-2**A contemplation on the origin of chloroplasts**

○Shinichiro Maruyama (Dept. Environ. Life Sci., Grad. Sch. Life Sci., Tohoku Univ.)

S27-3**Why organelles of symbiotic origin retain their own DNAs? A stand seen in an oyster parasite**

○Motomichi Matsuzaki (Dept. Parasitol., Nat'l. Inst. Infect. Dis.)

S27-4**Unique role of *Entamoeba* mitosomes: contributing for adaptation to parasitic lifestyle**

○Fumika Mi-ichi (Div. of Molecular and Cellular Immunoscience, Fac. of Medicine, Saga Univ.)

S27-5**Ongoing organellogenesis?—Insights from microbes inside cells**

○Takuro Nakayama (Grad. Sch. Life Sci., Tohoku Univ.)

S28 Infectious disease modeling and computation

March 21, Tuesday 15:30–17:30

Room 2 (Meeting Room 1)

Convener: Shinji Nakaoka (JST PRESTO)

S28-1**Quantifying cell-to-cell and cell-free HIV-1 infection**

○Shingo Iwami^{1,2} (¹Dept. Biol., Sch. Sci., Kyushu Univ., ²PRESTO, JST)

S28-2**Host transcriptional regulation in viral and bacterial infection**

○Eiryō Kawakami (Med. Sci. Innov. Hub., RIKEN)

S28-3**Combining Population Genetics of Pathogens and Mathematical Epidemiology of Infectious Diseases**

○Kimihiro Ito (Div. Bioinform., CZC, Hokkaido Univ.)

S28-4**Data mining of metabolic interactions among gut microbiota and immune system during viral infection**

○Shinji Nakaoka¹, Kei Sato² (¹JST PRESTO, ²Institute for Virus Research Kyoto University)

S29 From retrospect to prospect on mycoses

March 21, Tuesday 15:30–17:30

Room 4 (Meeting Room 3)

Conveners: Koichi Tanabe (Ryukoku Univ.)

Susumu Kajiwara (Tokyo Institute of Technology)

S29-1**Historical review and perspectives on mycoses research**

○Koichi Makimura^{1,2,3,4,5} (¹Gen. Med. Edu. Res. Center, Teikyo Univ., ²Lab. Space Environ. Med., Grad. Sch. Med., Teikyo Univ., ³Div. Clin. Lab. Med., Grad. Sch. Med. Care Tech., Teikyo Univ., ⁴Asia Inter. Inst. Infect. Dis. Contr., Teikyo Univ., ⁵Inst. Med. Mycol., Teikyo Univ.)

S29-2**Up-to-date understanding of *Aspergillus* biofilm**

○Takahito Toyotome^{1,2} (¹Diagn. Cent. Anim. Health Food Saf., Obihiro Univ. Agric. Vet. Med., ²Med. Mycol. Res. Cent., Chiba Univ.)

S29-3

Mitophagy in *Candida glabrata* plays an important role for their survival inside host body

○Minoru Nagi¹, Koichi Tanabe², Keigo Ueno¹, Hironobu Nakayama³, Shigeki Nakamura¹, Takashi Umeyama¹, Satoshi Yamagoe¹, Yoshitsugu Miyazaki¹ (¹Dept. Chemother. and Mycoses, Natl. Inst. of Infect. Dis., ²Dept of Food Sci. and Hum. Nutr., Ryukoku Univ., ³Facul. of Pharm. Sci., Suzuka Univ. of Med. Sci.)

S29-4

Research for pathogenicity and anti-fungal development with comprehensively gene-modified *Candida glabrata*

○Hiroji Chibana (Dept. Mol. Biol., Med. Mycol. Ctr., Chiba Univ.)

S29-5

A highly-virulent fungus *Cryptococcus gattii* : Analysis of virulence factors and the protective immunity

○Keigo Ueno¹, Yoshiko Otani^{1,2}, Makoto Urai¹, Masahiro Abe¹, Shogo Takatsuka¹, Kiminori Shimizu², Michiyo Kataoka³, Noriko Saito³, Yoshitsugu Miyazaki¹, Yuki Kinjo¹ (¹Dept. Chemother. Myco., NIID, ²Dept. Biolog. Sci. Fac. Indust. Sci. Techol. Tokyo Univ. of Sci., ³Lab. Electro. Microscop., NIID)

Workshop (WS)

WS1 Microbiota

March 19, Sunday 9:00–11:00
Room 5 (Meeting Room 4)

Chairs: Tomomi Komura (Nara Women's Univ.)
Takayasu Watanabe (Univ. Tokyo)

WS1-1 (P-036)

Evaluation of DNA extraction methods from stool samples aimed at standardization of gut microbiome analysis

○Morie Nishiwaki¹, Koichi Abe², Takeshi Naito², Nao Hosokawa^{1,2}, Kazuya Omi¹, Ryujiro Hara² (¹Miraca Holdings Inc., ²FUJIREBIO Inc.)

WS1-2 (P-033)

Comparison of Bacteroidetes microbiota in the intestines between laboratory mice and healthy humans

○Takashi Sasaki¹, Kyoko Kuwahara¹, Jie Yu Lu¹, Dai Ishikawa², Akihito Nakajima², Keiichi Hiramatsu¹ (¹Dept. Microbiol., Sch. Med., Juntendo Univ., ²Dept. Gastroenterol., Sch. Med., Juntendo Univ.)

WS1-3 (P-035)

Prolongevity effect and the specifically up-regulated genes by probiotics in *Caenorhabditis elegans*

○Tomomi Komura^{1,2}, Eriko Nakadai¹, Yoshikazu Nishikawa¹
(¹Dept. Food Human Health Sci., Grad. Sch. Human Life Sci., Osaka City Univ., ²Dept. Food Sci. Nutr., Nara Women's Univ.)

WS1-4 (P-031)

Rickettsia is discriminated against by ticks with abnormal reproductive systems

○Naoya Takamoto¹, Hitoshi Tai¹, Hiroko Sato², Fumihiko Kawamori³, Asaka Ikegaya³, Nobuhiro Takada⁴, Norio Ohashi¹ (¹Grad. Sch. Integrated Pharm. Nutr. Sci., Univ. Shizuoka, ²Akita Res. Center Public Health Environ., ³Shizuoka Inst. Environ. Hygiene, ⁴Fukui Univ.)

WS1-5 (P-020)

Exploring the Microbiota in Saliva from Children

○Izumi Mashima^{1,2,3}, Theodorea Fragrantia Citra³, Futoshi Nakazawa³ (¹Postdoctoral Fellow of JSPS, ²Dept. Oral Biol., Sch. Dent Med., The State Univ. NY Buffalo, ³Dept. Oral Microbiol., Sch. Dent., Heal. Sci. Univ. Hokkaido)

WS1-6 (P-023)

Disease-specific bacterial networks of peri-implantitis and periodontitis clarified by metatranscriptomics

○Takayasu Watanabe¹, Takahiko Shiba², Hirokazu Kachi³, Kazunori Murase⁴, Yasuo Takeuchi², Fumito Maruyama⁴, Yuichi Izumi², Ichiro Nakagawa⁴ (¹Res. Center for Food Safety, Grad. Sch. Agr. Life Sci., Univ. Tokyo, ²Sec. Periodontol., Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ., ³Sec. Maxillofac. Surgery, Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ., ⁴Sec. Microbiol., Grad. Sch. Med., Kyoto Univ.)

WS1-7 (P-032)

Characteristics of salivary microbiome in orally-healthy Japanese adults

○Toru Takeshita¹, Shinya Kageyama¹, Mikari Asakawa¹, Michiko Furuta¹, Kenji Takeuchi¹, Toshiharu Ninomiya², Yoshihisa Yamashita¹ (¹Sect. Prev. & Public Health Dent., Fac. Dent. Sci., Kyushu Univ., ²Dept. Epidemiol. & Public Health, Grad. Sch. Med. Sci., Kyushu Univ.)

WS2 Pathogenic factors and pathology

March 19, Sunday 13:20–15:20

Room 5 (Meeting Room 4)

Chairs: Tomoko Sumitomo (Osaka Univ.)

Makoto Kuroda (Natl. Inst. Infect. Dis.)

WS2-1 (P-177)**Virus-induced dysfunction of epithelial barrier promotes bacterial invasion into host cells**

○Tomoko Sumitomo, Masanobu Nakata, Masaya Yamaguchi, Shigetada Kawabata (Dept. Oral and Mol. Microbiol., Grad. Sch. Dent., Osaka Univ.)

WS2-2 (P-197)**Phylogenetic analysis of pneumococcal zinc metalloproteases and the role in bacterial meningitis**

○Masaya Yamaguchi¹, Masanobu Nakata¹, Ryuichi Sumioka¹, Satoshi Wada¹, Yujiro Hirose¹, Yukihiro Akeda², Tomoko Sumitomo¹, Shigetada Kawabata¹ (¹Dept. Oral Mol. Microbiol., Grad. Sch. Dent., Osaka Univ., ²Dept. Infect. Cont. Prev., Grad Sch. Med., Osaka Univ.)

WS2-3 (P-189)**Characterization of the pathogenicity of *Streptococcus intermedius* TYG1620 isolated from a human brain abscess**

○Makoto Kuroda, Noriko Hasegawa, Tsuyoshi Sekizuka, Yutaka Sugi, Kengo Kato, Akifumi Yamashita (Pathogen Genomics Center, National Institute of Infectious Diseases)

WS2-4 (P-163)**Efflux Transporter of Siderophore in *Staphylococcus aureus* Contributes to Bacterial Fitness**

○Hidemasa Nakaminami^{1,2}, Chunhui Chen¹, Que Chi Truong-Bolduc¹, Eu Suk Kim^{1,3}, Yin Wang¹, Norihisa Noguchi², David Hooper¹ (¹Division of Infectious Diseases, Massachusetts General Hospital, Harvard medical School, ²Department of Microbiology, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, ³Division of Infectious Diseases, Seoul National University Bundang Hospital)

WS2-5 (P-205)**Genome-wide expression analysis of pathogenic genes in mouse organs**

○Hiroshi Hamamoto¹, Panthee Suresh¹, Paudel Atmika¹, Yutaka Suzuki², Kazuhisa Sekimizu¹ (¹Teikyo Univ. Instit. of Med. Mycol., ²Grad Sch of Front Sci, The Univ of Tokyo)

WS2-6 (P-124)**Host E3 ubiquitin ligase limits pathogenicity of Enteropathogenic *E. coli***

○Jinhyeob Ryu¹, Ryota Otsubo³, Tamao Iida¹, Hiroshi Ashida², Chihiro Sasakawa^{2,3}, Hitomi Mimuro¹ (¹Div. Bact., Inst. Med. Sci. Univ. Tokyo, ²Med. Mycol. Res. Cent., Chiba Univ., ³Nippon Inst. for Biol. Sci.)

WS3 Immunity and host defense

March 19, Sunday 15:20–17:20

Room 5 (Meeting Room 4)

Chairs: Keigo Ueno (Natl. Inst. Infect. Dis.)

Jiro Mitobe (Natl. Inst. Infect. Dis.)

WS3-1 (P-331)**Dendritic cell-based vaccine induces the novel lung-resident memory Th17 and protects against cryptococcosis**

○Keigo Ueno¹, Makoto Urai¹, Shogo Takatsuka¹, Masahiro Abe¹, Yoshiko Otani^{1,2}, Kiminori Shimizu², Yoshitsugu Miyazaki¹, Yuki Kinjo¹ (¹Dept. Chemother. Myco., NIID, ²Dept. Biolog. Sci. Fac. Indust. Sci. Techol. Tokyo Univ. of Sci.)

WS3-2 (P-337)**Development of pneumococcal universal vaccine targeting PspA**

○Ryutaro Ogura¹, Zhenyu Piao¹, Takaaki Nishikawa¹, Yuji Inoue¹, Hiroki Nakayama¹, Yukihiro Akeda², Yuki Kinjo³, Kazunori Oishi⁴, Kazuyoshi Ikuta¹, Hiroshi Miyatake¹ (¹The Research Foundation for Microbial Diseases of Osaka University, ²Osaka University Graduate School of Medicine, ³Department of Chemotherapy and Mycoses, National Institute of Infectious Diseases, ⁴Infectious Disease Surveillance Center, National Institute of Infectious Diseases)

WS3-3 (P-339)***In vivo* RNA-seq reveals novel antigens against *Bordetella pertussis* infection**

○Koichiro Suzuki^{1,2}, Naoaki Shinzawa¹, Daisuke Motooka³, Shota Nakamura³, Keisuke Ishigaki¹, Kazuyoshi Ikuta², Koichi Yamanishi², Yasuhiko Horiguchi¹ (¹Dept. Mol. Bacteriol., RIMD, Osaka Univ., ²Res. Found. for Micro. Dise. of Osaka Univ., ³Dept. infect. Metageom., RIMD, Osaka Univ.)

WS3-4 (P-341)**Broad range immunization with an attenuated *Shigella* mutant increasing virulence genes expression**

○Jiro Mitobe¹, Ken Shimuta¹, Nobuo Koizumi¹, Ritam Sinha², Soma Mitra², Dhrubajyoti Nag², Hemanta Koley² (¹Dept. Bacteriol. 1, NIID, ²NICED, India)

WS3-5 (P-344)**Optimization of tuberculosis booster vaccine composed of the recombinant MDP1 and the DNA adjuvant, G9.1**

○Jun-ichi Maeyama¹, Toshio Yamamoto¹, Daisuke Hayashi^{1,2}, Toshiko Yamamoto^{1,2}, Yuriko Ozeki³, Fumiko Suzuki⁴, Takehiro Yamaguchi³, Sohichi Matsumoto³, Sumiko Iho⁴, Saburo Yamamoto^{1,2} (¹Natl. Inst. Infect. Dis., ²Japan BCG Laboratory, ³Sch. Med., Niigata Univ., ⁴Facul. Med. Sci., Univ. Fukui)

WS3-6 (P-345)

The effect of anaerobic cultures of *Helicobacter pylori* on immune system and prophylactic vaccine

○Sayaka Hirukawa, Hitomi Mimuro (Dev. Bacteriol., IMSUT)

WS4 Pathogenic factors and pathology

March 20, Monday 8:30–10:30

Room 3 (Meeting Room 2)

Chairs: Takeshi Haneda (Kitasato Univ.)

Hiroyasu Tsutsuki (Kumamoto Univ.)

WS4-1 (P-131)

***Bordetella* Bcr4 positively regulates type III secreted proteins**

○Ryutaro Nishimura, Asaomi Kuwae, Akio Abe (Dept. Inf. Ctrl. nd. Immunol., Grad. Sch. Inf. Ctrl. Sci., Kitasato Univ.)

WS4-2 (P-146)

Modulation of NF-κB activation by *Salmonella* type III effectors

○Takeshi Haneda, Momo Takemura, Nobuhiko Okada (Dept. Microbiol. Sch. Pharm. Kitasato Univ.)

WS4-3 (P-201)

The *S. flexneri* effector OspI controls intestinal inflammation in vivo

○Takahito Sanada¹, Hiroshi Ashida², Kotaro Kiga¹, Chihiro Sasakawa^{3,4}, Hitomi Mimuro¹ (¹Division of Bacteriology, Department of Infectious Diseases Control, International Research Center for Infectious Diseases, The Institute of Medical Science, University of Tokyo, ²Medical Mycology Research Center, Chiba University, ³Nippon Institute for Biological Science, ⁴Medical Mycology Research Center, Chiba University)

WS4-4 (P-216)

Inhibitory effects of diffusely adherent *Escherichia coli* strains on cytokine secretions from epithelial cells

○Saki Yanagida¹, Sayaka Tamai¹, Takumi Noju¹, Yoshihiko Tanimoto¹, Takehiro Matsuzaki¹, Eriko Nakadai^{1,2}, Yoshihiro Yamaguchi², Toshio Kodama³, Tetsuya Iida³, Yoshikazu Nishikawa¹ (¹Grad. Sch. Human Life Sci., Osaka City Univ., ²Adv. Res. Inst. Nat. Sci. Tech., Osaka City Univ., ³Inst. Microb. Dis., Osaka Univ.)

WS4-5 (P-152)

Suppression of inflammasome activity by subtilase cytotoxin produced by EHEC

○Hiroyasu Tsutsuki¹, Tianli Zhang¹, Katsuhiko Ono¹, Kinnosuke Yahiro², Sunao Iyoda³, Kazuko Seto⁴, Makoto Ohnishi³, Masatoshi Noda², Takaaki Akaike⁵, Tomohiro Sawa¹ (¹Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ²Dept Mol. Infectiol., Grad. Sch. Med., Chiba Univ., ³Dept. Bacteriol., Natl. Inst. Infect. Dis., ⁴Div. Bacteriol., Osaka Pref. Inst. Public Health, ⁵Dept. Environ. Health Sci., Mol. Toxicol., Tohoku Univ. Grad. Sch. Med.)

WS4-6 (P-132)

Characterization of macrophage cell death caused by *Shigella* infection

○Shiho Suzuki, Toshihiko Suzuki (Div. Bacter. Pathogenesis, Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ.)

WS5 Pathogenic factors and pathology

March 20, Monday 10:30–12:30

Room 3 (Meeting Room 2)

Chairs: Hisanori Domon (Niigata Univ.)

Toru Tobe (Osaka Univ.)

WS5-1 (P-158)

Functional analysis of neutrophil elastase in pneumococcal pneumonia in vitro

○Hisanori Domon¹, Tomoki Maekawa^{1,2}, Kosuke Nagai¹, Yutaka Terao¹ (¹Div. Microbiol. Infect. Dis., Niigata Univ. Grad. Sch. Med. & Dent. Sci., ²Res. Cent. for Adv. Oral Sci., Niigata Univ., Grad. Sch. of Med. & Dent. Sci.)

WS5-2 (P-114)

Redundant roles of Eap and cell wall-anchored proteins in biofilm formation in *S. aureus*

○Keigo Yonemoto^{1,3}, Akio Chiba^{1,2}, Shinya Sugimoto^{1,2}, Mitsuru Saito³, Keishi Marumo^{2,3}, Yoshimitsu Mizunoe^{1,2} (¹Department of Bacteriology, Jikei University School of Medicine, ²Jikei Center for Biofilm Research and Technology, Jikei University School of Medicine, ³Department of Orthopaedic Surgery, Jikei University School of medicine)

WS5-3 (P-123)

Quantifying heterogeneity of *P. aeruginosa* mucoid variant biofilms using single-cell tracking

○Andrew S. Utada¹, Jiayue Yang², Tatsunori Kiyokawa², Nobuhiko Nomura¹ (¹Fac. Life Env. Sci., Univ. Tsukuba, ²Grad. Sch. Life Env. Sci., Univ. Tsukuba)

WS5-4 (P-171)

Enterohaemorrhagic *E. coli* produces OMVs as an active defense system against antimicrobial peptide

Akiko Urashima, Hilo Yen, ○Toru Tobe (Dept. Biomedical Informatics, Grad. Sch. Med., Osaka Univ.)

WS5-5 (P-207)**Ectopic expression of O-antigen in *Bordetella pertussis* by a novel genomic integration system**

○Keisuke Ishigaki¹, Naoaki Shinzawa¹, Sayaka Nishikawa^{1,2}, Koichiro Suzuki^{1,3}, Yasuhiko Horiguchi¹ (¹Dept. Mol. Bacteriol., RIMD, Osaka Univ., ²Natl. Inst. Anim. Health, NARO, ³Res. Found. for Micro. Dise. of Osaka Univ.)

WS5-6 (P-196)**The capsule of fungal pathogen *Cryptococcus gattii* is required for the stress adaptation and the immune escape**

○Yoshiko Otani^{1,2}, Keigo Ueno², Makoto Urai², Kiminori Shimizu¹, Michiyo Kataoka³, Noriko Saito³, Yoshitsugu Miyazaki², Yuki Kinjo² (¹Dept. Biolig. Sci. Fac. Indust. Sci. Technol, Tokyo Univ. of Sci., ²Dept. Chemother and Mycoses. NIID, ³Lab. Electro. Microscop., NIID)

WS6 Immunity and host defense

March 20, Monday 10:30–12:30

Room 4 (Meeting Room 3)

Chairs: Takayuki Matsumura (Natl. Inst. Infect. Dis.)
Masayuki Umemura (Univ. Ryukyus)

WS6-1 (P-309)**Interferon-γ-mediated innate immunity against *Staphylococcus pseudintermedius* in canine DH82 cells**

○Akiko Segawa, Kohei Kumagai, Hiroyuki Tani, Takeshi Matsuzawa (Grad. Sch. Life Envriorn. Sci., Osaka Pref. Univ.)

WS6-2 (P-314)**IL-6-deficient immature myeloid cells have no protective function against *Streptococcus* infection**

○Takayuki Matsumura¹, Tadayoshi Ikebe², Makoto Ohnishi², Manabu Ato¹ (¹Dept. Immunol., Natl. Inst. Infect. Dis., ²Dept. Bacteriol. I, Natl. Inst. Infect. Dis.)

WS6-3 (P-319)**Analysis of PRDX1 which contributes to host defenses against *Mycobacterium tuberculosis***

○Kazunori Matsumura¹, Hiroki Iwai¹, Masako Miyazawa Kato¹, Fumiko Kirikae¹, Jizi Zhao¹, Toru Yanagawa², Tetsuro Ishii², Keiji Funatogawa³, Tohru Miyoshi Akiyama¹, Teruo Kirikae¹ (¹Dept. of Infectious Diseases, National Center for Global Medicine, ²Facu. of Medicine, University of Tsukuba, ³Dept. of Microbiology, Tochigi Prefectural Institute of Public Health and Environmental Science)

WS6-4 (P-321)**Bcl-xL regulates Group A *Streptococcus* internalization to host cell and autophagosome-lysosome fusion**

○Shintaro Nakajima, Chihiro Aikawa, Takashi Nozawa, Atsuko Nozawa, Hirotaka Toh, Ichiro Nakagawa (Dept. Micribiol., Grad. Sch. Med., Kyoto Univ.)

WS6-5 (P-340)***S. aureus*-specific IgG antibodies inhibit the bacterial growth in a Sortase A independent manner**

○Mutsumi Furukawa^{1,3}, Hiroshi Yoneyama^{2,3}, Eiji Hata⁴, Tasuke Ando², Tomohito Hayashi⁴, Yoshio Kiku⁴, Yuuya Nagasawa⁴, Kouichi Watanabe^{1,3}, Hisashi Aso^{1,3}, Tomonori Nochi^{1,3} (¹Laboratory of Functional Morphology, Graduate School of Agricultural Science, Tohoku University, ²Laboratory of Animal Bacteriology, Graduate School of Agricultural Science, Tohoku University, ³International Research and Education Center for Food and Agricultural Immunology, Graduate School of Agricultural Science, Tohoku University, ⁴National Institute of Animal Health, National Agriculture and Food Research Organization)

WS6-6 (P-348)**Functional diversity of IL-17A producing cells in the mycobacterial infected lungs**

○Masayuki Umemura^{1,2}, Kanako Gima³, Masayuki Fukui⁴, Naoko Teruya¹, Giichi Takaesu^{1,2}, Goro Matsuzaki^{1,2} (¹Mol. Microbiol. Gr., Dept. Infect. Dis., Trop. Biosphere Res. Cent., Univ. Ryukyus, ²Host Defense, Grad. Sch. Med., Univ. Ryukyus, ³Sch. Med., Niigata Univ., ⁴Dept. Pharma. Sci., Aomori Univ.)

WS7 Pathogenic factors and pathology

March 20, Monday 16:10–18:10

Room 5 (Meeting Room 4)

Chairs: Norihiko Takemoto (NCGM)
Kohei Arasaki (Tokyo Univ. Pharm. and Life Sci.)

WS7-1 (P-212)**The exploration of novel virulence factor and virulence regulator in Group A Streptococci**

○Norihiko Takemoto¹, Shinya Watanabe², Tohru Miyoshi Akiyama¹ (¹Pathogenic Microbe lab., NCGM, ²Div. Bacteriol., Dept. Infect. Immunity, Sch. Med., Jichi Med. Univ.)

WS7-2 (P-178)***Streptococcus pyogenes* NADglycohydrolase as negative regulator for internalization into HeLa cells**

○Hirotaka Toh, Chihiro Aikawa, Shintaro Nakajima, Takashi Nozawa, Atsuko Nozawa, Ichiro Nakagawa (Dept. Micribiol., Grad. Sch. Med., Kyoto Univ.)

WS7-3 (P-183)***L. monocytogenes* δ^H activates the expression of competence genes and is essential for intracellular growth**

○Veronica Teresa Medrano Romero, Kazuya Morikawa (Bacteriol. Fac. Med. Univ. Tsukuba)

WS7-4 (P-157)

Legionella Effector Lpg1137 Shuts down ER-mitochondria Communication through Cleavage of Syntaxin 17

○Kohei Arasaki¹, Yumi Mikami¹, James Havey², Stephanie R Shames², Craig R Roy², Mitsuo Tagaya¹ (¹Sch. Life Sci., Tokyo Uvni. Pharm. and Life Sci., ²Department of Microbial Pathogenesis, Sch. Med., Yale Univ.)

WS7-5 (P-133)

Analysis of *Francisella* effector interacting with centrosome

○Takashi Shimizu¹, Jin Suzuki², Kenta Watanabe¹, Masahisa Watarai², Akihiko Uda³ (¹Dept. Vet. Public Health, Fac. Vet. Sci., Yamaguchi Univ., ²Dept. Pathol Prevent. Vet. Sci., Grad. Sch. Vet. Sci., Yamaguchi Univ., ³Dept. Vet. Sci., NIID)

WS7-6 (P-162)

Survival strategy of *Helicobacter pylori* by sRNA

○Kotaro Kiga^{1,2}, Bo Zhu¹, Ryo Kinoshita¹, Takahito Sanada¹, Hitomi Mimuro¹ (¹Div. Bacteriol., Int'l Res. Ctr. Infec. Dis., Inst. Med. Sci., Univ. Tokyo, ²Div. Bacteriol., Sch. Med., Jichi Med. Univ.)

WS8 Immunity and host defense

March 21, Tuesday 13:30–15:30

Room 3 (Meeting Room 2)

Chairs: Go Kamoshida (Teikyo Univ.)

Mayuko Osada-Oka (Kyoto Pref. Univ.)

WS8-1 (P-307)

Bacteria are trapped in spontaneous neutrophil extracellular traps induced by serum-free culture condition

○Go Kamoshida, Takane Ueda, Satoshi Nishida, Shigeru Nagakawa, Tsuneyuki Ubagai, Yasuo Ono (Department of Microbiology and Immunology, Teikyo University School of Medicine)

WS8-2 (P-310)

***Fusobacterium nucleatum* induces the production of NETs-associated MIF by human neutrophils**

○Hiroyuki Tada (Dept. Oral Microbiol., Grad. Sch. Dent., Tohoku Univ.)

WS8-3 (P-315)

Escherichia coli-derived outer membrane vesicles cause the proinflammatory signal mediated by exosomes

○Mayuko Osada-Oka¹, Yui Kimura¹, Daisuke Yakura², Naoaki Shinzawa³, Yasuhiko Horiguchi³, Hiroshi Ichikawa², Yukiko Minamiyama¹ (¹Food Hyg. Env. Health, Life Env. Sci., Kyoto Pref. Univ., ²Doshisha University, ³Dept. Mol. Bacteriol., RIMD, Osaka Univ.)

WS8-4 (P-317)

One of mycoplasmal active entities that induce IL-1 β production by macrophages is lipopeptide/lipoprotein

○Ayumi Saeki¹, Akira Hasebe¹, Toshihiko Suzuki², Ken-ichiro Shibata¹ (¹Div. Oral Mol Microbiol., Dept Oral Pathobiol. Sci., Hokkaido Univ. Grad. Sch. Dent. Med., ²Dept. Bacterial Infection and Host Response., Grad Sch. Med. Dent. Sci., Tokyo Medical and Dental Univ.)

WS8-5 (P-322)

Potentiation of antibacterial activity of macrophages by persulfide donor treatment

○Tianli Zhang¹, Hiroyasu Tsutsuki¹, Katsuhiko Ono¹, Takaaki Akaike², Tomohiro Sawa¹ (¹Dept. Microbiol., Sch. Med., Kumamoto Univ., ²Dept. Environ Health Sci and Mol Toxicol., Sch. Med., Tohoku Univ)

WS8-6 (P-326)

Immunostimulatory effects of outer membrane vesicles from acetic acid bacteria

○Masahito Hashimoto, Taichi Matsumoto, Risako Baba, Mami Ozono, Shuhei Hashiguchi (Sci. & Eng. Area, Kagoshima Univ.)

WS9 Pathogenic factors and pathology

March 21, Tuesday 15:30–17:30

Room 3 (Meeting Room 2)

Chairs: Tomoko Kohda (Osaka Pref. Univ.)

Shinya Watanabe (Jichi Med. Univ.)

WS9-1 (P-211)

***Bordetella* PlrS-mediated virulence regulatory system is important for the respiratory infection**

Mai Higashi¹, Sayaka Nishikawa^{1,2}, Keisuke Ishigaki¹, Hiroyuki Abe¹, Yasuhiko Horiguchi¹, ○Naoaki Shinzawa¹ (¹Dept. Mol. Bacteriol., RIMD, Osaka Univ., ²Natl. Inst. Anim. Health, NARO)

WS9-2 (P-153)

The N-terminal domain of variant botulinum neurotoxin type A contributes to the potency to neurons

○Tomoko Kohda¹, Kentaro Tsukamoto², Shunji Kozaki¹, Masafumi Mukamoto¹ (¹Dept. Vet. Sci., Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., ²Dept. Microbiol., Fujita Health Univ. Sch. Med.)

WS9-3 (P-181)

Regulation of *Campylobacter jejuni* invasion by Tight Junctions in polarized intestinal epithelial cells

○Sho Hatayama, Takaaki Shimohata, Sachie Amano, Junko Kido, Yuna Kanda, Aya Tentaku, Shiho Fukushima, Takashi Uebano, Kazuaki Mawatari, Akira Takahashi (Dept. Preventive Environment and Nutrition, Inst. Biomedical Science, Univ. Tokushima Graduate School)

WS9-4 (P-166)

**Involvement of PDIM/PGL from BCG in resistance to
bile acids**

○Shohei Tamura¹, Masaaki Nakayama², Nagatoshi Fujiwara³,
Takayuki Wada⁴, Saburo Yamamoto⁵, Hiroki Kosaki², Seiji Iida¹,
Naoya Ohara² (¹Dept. Oral Maxillofacial Reconst. Surg.,
Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ²Dept. Oral
Microbiol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci.,
³Dept. Food Nutr, Faculty Contemp Human Life Sci.,
Tezukayama Univ., ⁴Dept. Int. Health, Inst. Trop. Med., Nagasaki
Univ., ⁵Japan BCG Lab.)

WS9-5 (P-209)

**Relationship between a 16S rRNA mutation associated
with kanamycin resistance and *M. tuberculosis*
virulence**

○Shinya Watanabe^{1,2}, Kazunori Matsumura³, Hiroki Iwai³, Keiji
Funatogawa⁴, Masako Kato³, Fumiko Kirikae³, Tohru Miyoshi
Akiyama¹, Longzhu Cui², Teruo Kirikae³ (¹Lab. Pathogenic
Microbes, NCGM, ²Div. Bacteriol., Dept. Infect. Immunity, Sch.
Med., Jichi Med. Univ., ³Dept. Infect. Dis., NCGM, ⁴Tochigi
Prefectural Institute of Public Health and Environmental
Science)

WS9-6 (P-184)

**Identification of novel mycobacterial inhibitors against
bacterial PknG kinase**

○Yuichi Kanehiro¹, Haruaki Tomioka², Yutaka Tatano³, Timmy
Richard¹, Hyoji Kim¹, Hisashi Iizasa¹, Hironori Yoshiyama¹
(¹Microbiology, Faculty of Medicine, Shimane University,
²School of Nursing, Yasuda Women's University, ³Department
of Pharmacy, School of Pharmacy, IUHW)

Poster (P)

P-001

Construction of a *Staphylococcus aureus* variant deficient in two alanine racemase genes

○Syun Nasuno, Ryota Yoneyama, Mika Sato, Tasuke Ando, Emiko Isogai, Hiroshi Yoneyama (Dept. Microbial Biootechnol., Tohoku Univ.)

P-002

The JTY_3475c from BCG Tokyo represses the transcription of JTY_3476 gene

○Kaori Shirasaki¹, Masaaki Nakayama², Saburo Yamamoto³, Takemasa Takii⁴, Mayuko Okabe⁵, Manabu Ato⁵, Hiroshi Kamioka¹, Naoya Ohara² (¹Dept. Orthodontics., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ²Dept. Oral Microbiol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ³Japan BCG Lab., ⁴Dept. Mycobacterium Ref. Res., RIT, JATA, ⁵Dept. Immunol., Natl. Inst. Infect. Dis.)

P-003

***Vibrio cholerae* are classified into two lineages based on the gene constitution of locus MS6_A0927**

○Kazuhsia Okada, Shigeyuki Hamada (RCC-ERI, RMID, Osaka Univ.)

P-004

Detection of *Leptospira* from soil-originated in Japan

○Keiko Sakakibara¹, Toshiyuki Masuzawa¹, Midori Ogawa², Yasuhiko Nikaido², Masahiro Matsumoto², Mitsumasa Saito², Junko Tomida³, Yoshiaki Kawamura³, Yasutake Yanagihara⁴, Yusuke Hidaka⁵ (¹Dept. Microbiol. Immunol., Sch. pharm, Chibakagaku Univ., ²University of Occupational and Environmental Health, ³Aichi Gakuin University, ⁴University of Shizuoka, ⁵Kyushu University)

P-005

Comparative analysis of pathogenicity elements in *Vibrio cholerae* from pond water and patients in Kolkata

○Tamaki Mizuno¹, Daichi Morita², Asish K. Mukhopadhyay³, Daisuke Imamura², Sumio Shinoda², Shin-ichi Miyoshi¹ (¹Grad. Med, Dent. Pharm. Sci., Okayama Univ., ²Collab. Res. Ctr., Okayama Univ., ³NICED)

P-006

Taxonomic and ecological characterization of a novel intestinal bacterium causing type 2 diabetes (T2D)

○Hiroyuki Kusada¹, Keishi Kameyama², Xian-Ying Meng¹, Yoichi Kamagata¹, Hideyuki Tamaki¹ (¹BRI, AIST, ²Ajinomoto Co., Inc.)

P-007

Comparative genomic analysis of Enterohemorrhagic E. coli O145:H28

○Keiji Nakamura¹, Kazunori Murase², Takehiko Itoh³, Mainil Jacques⁴, Shuji Yoshino⁵, Mariko Kurogi⁵, Keiko Kimata⁶, Junko Isobe⁶, Kazuko Seto⁷, Yoshiki Etoh⁸, Eriko Maeda⁸, Kikuyo Ogata⁹, Hiroshi Narimatsu⁹, Shioko Saito¹⁰, Jun Yatsuyanagi¹⁰, Sunao Iyoda¹¹, Makoto Ohnishi¹¹, Tadasuke Ooka¹², Yasuhiro Gotoh¹, Yoshitoshi Ogura¹, Tetsuya Hayashi¹ (¹Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ., ²Dept. Microbiol., Grad. Sch. Med., Kyoto Univ., ³Grad. Sch. Biosci. Biotech., Tokyo Inst. Technol. Univ., ⁴Dept. Infect. Dis., Fac. Vet. Med., Liege Univ., ⁵Dept. Microbiol., Miyazaki Inst. Pub. Health Environ., ⁶Dept. Bacteriol., Toyama Inst. Health, ⁷Div. Bacteriol., Osaka Pref. Inst. Pub. Health, ⁸Dept. Hlth. Sci., Fukuoka Inst. Health Environ. Sci., ⁹Div. Microbiol., Oita Pref. Inst. Health Environ., ¹⁰Dept. Microbiol., Akita Res. Cen. Pub. Health Environ., ¹¹Dept. Bacteriol., Natl. Inst. Infect. Dis., ¹²Dept. Microbiol., Grad. Sch. Med. Dent. Sci., Kagoshima Univ.)

P-008

Molecular diversity of *Mycobacterium avium* subsp. *paratuberculosis* strains isolated in Japan using NGS data

○Kei Nishimori, Makoto Osaki (Mycobacterial Disease Unit, NIAH, NARO)

P-009

An outbreak investigation of methicillin-resistant *Staphylococcus aureus* by using whole genome analysis

○Katsuyuki Katahira, Yasuhiro Gotoh, Yoshitoshi Ogura, Tetsuya Hayashi (Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ.)

P-010

Development of drug susceptibility prediction system based on VNTR genotyping of *Mycobacterium avium*

○Yutaka Tatano¹, Chiaki Sano², Akira Umeda³, Satoshi Mitarai⁴, Junko Fujihara², Haruo Takeshita², Haruaki Tomioka⁵, Hideki Yagi¹ (¹Dept. Pharm. Sci., Int'l Univ. of Health and Welfare, ²Sch. Med., Shimane Univ., ³Res. med., Int'l Univ. of Health and Welfare Shioya Hosp., ⁴Dept. Mycobac. Ref. Res., Res. Inst. TB., JATA., ⁵Dept. Basic Med. Sci. Fro Nursing, Yasuda Women's Univ.)

P-011

Reclassification of *Gemella* from human specimens

○Michiko Furugaito, Shigekazu Iguchi, Atsushi Yoshida, Yutaka Uzawa, Ken Kikuchi (Department of Infectious Diseases, Tokyo Women's Medical University)

P-012**Surveillance of meningococcal carriage rate in healthy persons in Japan**

○ Hideyuki Takahashi¹, Masa Haga², Tomimasa Sunagawa³, Takehito Saitoh³, Takeru Kitahara⁴, Sohichi Matsumoto⁴, Makoto Ohnishi¹ (¹Dept. Bacteriol 1, Nat. Inst. Infect. Dis., ²Healthcare center, Hokkaido Edu. Univ., ³Dep. Survey., Nat. Inst. Infect. Dis., ⁴Dep. Med., Niigata Univ.)

P-013***Streptococcus dentiloxodontae* sp. nov., isolated from the oral cavity of elephants**

○ Masanori Saito, Noriko Kuwahara, Osamu Tsuzukibashi, Tomoko Ochiai (Dept. Microbiol. Immunol., Sch. Dent. Matsudo, Nihon Univ.)

P-014**An amoebae backpack human pathogenic bacteria depending on the amoebal endosymbiont**

○ Mizue Matsushita, Junji Matsuo, Torahiko Okubo, Hiroyuki Yamaguchi (Faculty Health Sci. Hokkaido Univ.)

P-015**Gene expression in *Bordetella pertussis* pellicle**

○ Tomoko Hanawa¹, Kazunari Kamachi², Hideo Yonezawa¹, Satoshi Kurata¹, Fuhito Hojo³, Takako Osaki¹, Cynthia Zaman¹, Shigeru Kamiya¹ (¹Department of Infectious Diseases, Kyorin University School of Medicine, ²Department of Bacteriology II, National Institute of Infectious Diseases, ³Institute of Laboratory Animals, Graduate School of Medicine, Kyorin University Inst, Lab. Anim, Grad. Sch. Med.)

P-016***Streptococcus mutans* releases extracellular DNA in response to sucrose**

○ Sachi Inoue¹, Tomohiro Inaba², Nozomu Obana³, Yutaka Yawata⁴, Hidenobu Senpuku⁵, Nobuhiko Nomura³ (¹Grad. Sch. Life Environ. Sci., Univ. Tsukuba, ²Environ. Manage. Res. Inst., AIST, ³Fac. Life Environ. Sci., Univ. Tsukuba, ⁴Dept of Civil. Environ and Geomatic Engineering., ETH Zurich, ⁵Dept. Bacterio. I., NIID)

P-017**Oral bacterial interaction affects *Streptococcus mutans* biofilms structure**

○ Yasuhiro Nakanishi^{1,2}, Tatsuya Yamamoto¹, Nozomu Obana¹, Masanori Toyofuku¹, Akihiro Kaneko², Nobuhiko Nomura¹ (¹Grad. Sch. Life and Env. Sci., Tsukuba Univ., ²Grad. Sch. Medicine., Tokai Univ.)

P-018**AlpA outer membrane protein of *Helicobacter pylori* affects biofilm formation**

○ Hideo Yonezawa, Takako Osaki, Tomoko Hanawa, Satoshi Kurata, Cynthia Zaman, Fuhito Hojo, Shigeru Kamiya (Dept. Infect. Dis., Kyorin Univ. Sch. Med.)

P-019**Colony spreading factor of *Flavobacterium johnsoniae***

○ Keiko Sato¹, Yoshio Kondo², Keigo Imamura², Yuka Narita³, Mariko Naito¹, Taku Fujiwara², Koji Nakayama¹ (¹Dept. Microbiol. Nagasaki Univ., ²Dept. Pediatric dent. Nagasaki Univ., ³Fukuoka Dent. College)

P-020 (WS1-5)**Exploring the Microbiota in Saliva from Children**

○ Izumi Mashima^{1,2,3}, Theodore Fragrantia Citra³, Futoshi Nakazawa³ (¹Postdoctoral Fellow of JSPS, ²Dept. Oral Biol., Sch. Dent Med., The State Univ. NY Buffalo, ³Dept. Oral Microbiol., Sch. Dent., Heal. Sci. Univ. Hokkaido)

P-021**Effect of production and inactivation of autoinducer in *Eikenella corrodens***

○ Ryohei Iida¹, Fariha Jasin Mansur², Hiroyuki Azakami^{3,4} (¹Grad. Sch. Agri., Yamaguchi Univ., ²United Grad. Sch. Agri, Tottori Univ., ³Grad. Sch. Inov., Yamaguchi Univ., ⁴Research Center Thermotolerant Microbial Resources, Yamaguchi Univ.)

P-022**DNA sequence analysis of the novel *Veillonella* species isolated from saliva of Thai children**

○ Theodore Fragrantia Citra¹, Izumi Mashima^{1,2,3}, Futoshi Nakazawa¹ (¹Dept. Oral Microbiol. Sch. Dent., Heal. Sci. Univ. Hokkaido, ²Postdoctoral Fellow of JSPS, ³Dept. Oral Biol. Sch. Dental Med. State Univ. NY Buffalo)

P-023 (WS1-6)**Disease-specific bacterial networks of peri-implantitis and periodontitis clarified by metatranscriptomics**

○ Takayasu Watanabe¹, Takahiko Shiba², Hirokazu Kachi³, Kazunori Murase⁴, Yasuo Takeuchi², Fumito Maruyama⁴, Yuichi Izumi², Ichiro Nakagawa⁴ (¹Res. Center for Food Safety, Grad. Sch. Agr. Life Sci., Univ. Tokyo, ²Sec. Periodontol., Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ., ³Sec. Maxillofac. Surgery, Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ., ⁴Sec. Microbiol., Grad. Sch. Med., Kyoto Univ.)

P-024**An investigation of dynamic microbial communities for *C. jejuni* and *C. coli* using metagenomics**

○ Nachiko Ogata, Yaqi Pan, Takayasu Watanabe, Sakura Arai, Hyunjung Kim, Tsutomu Sekizaki (Res. Center for Food Safety, Grad. Sch. Agr. Life Sci., Tokyo Univ.)

P-025**Comprehensive analysis of the skin bacterial microbiota of healthy Japanese individuals**

○ Otomi Cho, Mizuna Inoue, Takashi Sugita (Dept. Microbiol. Meiji Pharm. Univ.)

P-026

Molecular detection of *Acinetobacter* spp. from the skin of patients with skin diseases

○Mizuna Inoue, Otomi Cho, Takashi Sugita (Dept. Microbiol., Meiji Pharm Univ.)

P-027

Analysis of skin flora by new skin bacteria collection method and comparison with swab method

○Satoshi Nagase¹, Kazuhiro Oogai², Yumiko Mori¹, Kanae Mukai³, Miki Matsue¹, Junko Sugama³, Shigefumi Okamoto¹

(¹Dept. Clin. Lab. Sci., Sch. Med. Sci., Kanazawa Univ., ²Wellness Promotion Sci. Center, Sch. Med. Sci., Kanazawa Univ., ³Dept. Clin. Nurs. Sci., Sch. Med. Sci., Kanazawa Univ.)

P-028

Prevalence of chlamydial infection in the genital tract of women and the degree of inflammation

○Keisuke Taki, Junji Matsuo, Torahiko Okubo, Hiroyuki Yamaguchi (Faculty Health Sci. Hokkaido Univ.)

P-029

Evaluation of oral bacterial compositions based on penta-gram patterns in nucleotide sequences

○Yoshio Nakano¹, Nao Taniguchi², Fumiayuki Kuwata¹ (¹Dept. Chem., Nihon Univ. Sch. Dent., ²Dept. Prev. Pub. Health Dent., Fukuoka Dent. Coll.)

P-030

Isolation of novel bacteria from healthy human feces using conventional culture media

○Tamaki Ito, Tsuyoshi Sekizuka, Akifumi Yamashita, Kengo Kato, Makoto Kuroda (Pathogen Genomic Center, Nat. Inst. Infect. Dis.)

P-031 (WS1-4)

Rickettsia is discriminated against by ticks with abnormal reproductive systems

○Naoya Takamoto¹, Hitoshi Tai¹, Hiroko Sato², Fumihiiko Kawamori³, Asaka Ikegaya³, Nobuhiro Takada⁴, Norio Ohashi¹ (¹Grad. Sch. Integrated Pharm. Nutr. Sci., Univ. Shizuoka, ²Akita Res. Center Public Health Environ., ³Shizuoka Inst. Environ. Hygiene, ⁴Fukui Univ.)

P-032 (WS1-7)

Characteristics of salivary microbiome in orally-healthy Japanese adults

○Toru Takeshita¹, Shinya Kageyama¹, Mikari Asakawa¹, Michiko Furuta¹, Kenji Takeuchi¹, Toshiharu Ninomiya², Yoshihisa Yamashita¹ (¹Sect. Prev. & Public Health Dent., Fac. Dent. Sci., Kyushu Univ., ²Dept. Epidemiol. & Public Health, Grad. Sch. Med. Sci., Kyushu Univ.)

P-033 (WS1-2)

Comparison of Bacteroidetes microbiota in the intestines between laboratory mice and healthy humans

○Takashi Sasaki¹, Kyoko Kuwahara¹, Jie Yu Lu¹, Dai Ishikawa², Akihito Nakajima², Keiichi Hiramatsu¹ (¹Dept. Microbiol., Sch. Med., Juntendo Univ., ²Dept. Gastroenterol., Sch. Med., Juntendo Univ.)

P-034

Does metabolites in gut world reflect effect of dietary ingredients on gut microbial community ?

○Takashi Uebano¹, Ayumi Yoshimoto¹, Takaaki Shimohata¹, Mutsumi Nakahashi², Kazuaki Mawatari¹, Akira Takahashi¹ (¹Department of Preventive Environment and Nutrition Institute of Biomedical Sciences, Tokushima University Graduate School, ²Graduate School of Bioscience and Bioindustry Tokushima University)

P-035 (WS1-3)

Prolongevity effect and the specifically up-regulated genes by probiotics in *Caenorhabditis elegans*

○Tomomi Komura^{1,2}, Eriko Nakadai¹, Yoshikazu Nishikawa¹ (¹Dept. Food Human Health Sci., Grad. Sch. Human Life Sci., Osaka City Univ., ²Dept. Food Sci. Nutr., Nara Women's Univ.)

P-036 (WS1-1)

Evaluation of DNA extraction methods from stool samples aimed at standardization of gut microbiome analysis

○Morie Nishiwaki¹, Koichi Abe², Takeshi Naito², Nao Hosokawa^{1,2}, Kazuya Omi¹, Ryujiro Hara² (¹Miraca holdings Inc., ²FUJIREBIO Inc.)

P-037

Single cell observation reveals heterogeneity of uncultivable bacteria

○Rino Isshiki¹, Hirotugu Fujitani^{1,2}, Daiki Tanaka², Tetsushi Sekiguchi², Satoshi Tsuneda^{1,2} (¹Dep. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ., ²NLR, Waseda Univ.)

P-038

Assessment of non-tuberculous mycobacteria in river water

○Kentaro Arikawa¹, Yukiko Nishiuchi², Tomotada Iwamoto¹ (¹Dept. Infec. dis., Kobe Inst. Heal., ²Toneyama Inst. Tuberculosis Res., Osaka City Uni. Med. Sch)

P-039

Amoebal endosymbiont *Neochlamydia* restricts host amoebal phagocytosis via actin stabilization

○Chinatsu Maita¹, Junji Matsuo¹, Torahiko Okubo¹, Shinji Nakamura², Hiroki Nagai³, Hiroyuki Yamaguchi¹ (¹Faculty. Health Sci. Hokkaido Univ., ²Div. Biomed. Imag. Res., Juntendo Univ. Grad. Sch. Med., ³RIMD, Osaka Univ.)

P-040**Epidemiological investigation and detection of virulence traits in *Legionella* spp. isolates from hot spring**

○Noriko Nakanishi, Shinobu Tanaka, Kentaro Arikawa, Tomotada Iwamoto (Dept. Infec. dis., Kobe Inst. Heal.)

P-041**Live imaging-based analysis of virulence-related genes of *Pseudomonas syringae* pv. *tabaci***

○Nozomu Maruyama¹, Tatsunori Kiyokawa¹, Takako Ishiga², Yasuhiro Ishiga², Shigeyuki Betsuyaku², Nozomu Obana², Yuki Ichinose³, Nobuhiko Nomura² (¹Grad. Sch. of Life and Environ. Sci., Univ. of Tsukuba, ²Fac. of Life and Environ. Sci., Univ. of Tsukuba, ³Grad. Sch. of Environ. and Life Sci., Okayama Univ.)

P-042**Effects of disruption of genes expressed during VBNC phase of *Vibrio cholerae* on survival under starvation**

○Daisuke Imamura¹, Avijit Sarkar¹, Daichi Morita¹, Tamaki Mizuno², Keinosuke Okamoto¹, Shin-ichi Miyoshi², Sumio Shinoda¹ (¹Collab. Res. Ctr. Okayama Univ. Infect. Dis. India, Okayama Univ., ²Grad Sch Med Dent Pharm Sci, Okayama University)

P-043**Survival of *Helicobacter pylori* in environmental soil**

○Fuhito Hojo¹, Takako Osaki², Hideo Yonezawa², Tomoko Hanawa², Satoshi Kurata², Shigeru Kamiya^{1,2} (¹Inst. Lab. Anim., Grad. Sch. Med., Kyorin Univ., ²Div. Med. Microbiol., Dep. Infect. Dis., Kyorin Univ.)

P-044**The role of nutritional condition and glycopeptidolipid on biofilm formation of nontuberculous mycobacteria**

○Yukiko Nishiuchi¹, Takahiro Totani², Yoshitaka Tateishi³, Yukihiko Kaneko², Sohkichi Matsumoto³ (¹Inst. Toneyama Tuberculosis Res., Sch. Med., Osaka City Univ., ²Dept. Bacteriol., Grad. Sch. Med., Osaka City Univ., ³Dept. Bacterial., Grad. Sch. Med. Dent. Sci., Niigata Univ.)

P-045**Structural and functional analysis of the periplasmic region of DedD in *Escherichia coli***

○Toshio Yamaguchi, Ayaka Watanabe, Yousuke Takeuchi, Masahiro Fukuhara (Dept. Microbiol., Fac. Pharm., Niigata Univ. Pharm. Appl. Life Sci.)

P-046**Characterization of *Helicobacter pylori* strains in continuous flow culture system**

○Takako Osaki¹, Cynthia Zaman¹, Hideo Yonezawa¹, Fuhito Hojo¹, Satoshi Kurata¹, Tomoko Hanawa¹, Motomichi Takahashi^{1,2}, Kentaro Oka², Shigeru Kamiya¹ (¹Dept. Infect. Dis., Kyorin Univ. Sch. Med., ²Tokyo R&D Center, Miyarisan Pharma. Co. Ltd.)

P-047**Trial of gellan gum plate to culture *Filobacterium rodentium***

○Fumio Ike (Exp. Animal Div., RIKEN BRC)

P-048**Investigation of the VNC-like cells inducing materials in *C. jejuni***

○Tomoya Yamamoto, Aimi Shimizu, Tomoko Mizote (Yamaguchi Prefectural University)

P-049**Farm level contamination of cucumber fruits by *E. coli*****O157:H7**

○Nobuyuki Kijima¹, Masayuki Maeda², Toshiro Kai³, Hiroyuki Sekiguchi⁴ (¹Institute of Vegetable and Floriculture Science, NARO, ²Niigata Agricultural Research Institute, ³Miyazaki Agricultural Research Institute, ⁴Western Region Agricultural Research Center, NARO)

P-050**The role of flies in maintaining antimicrobial-resistance in farm environments**

○Akira Fukuda¹, Masaru Usui¹, Masashi Okamura², Dong-Liang Hu², Yutaka Tamura¹ (¹Dept. Food Safety, Vet. Med., Rakuno Gakuen Univ., ²Lab. Zoonoses, Kitasato Univ. Sch. Vet. Med.)

P-051**Staphylococcal biofilm dispersal by nuclease via RNA degradation**

○Akiko Tajima^{1,2}, Yoshimitsu Mizunoe^{1,2} (¹Dept. Bacteriol., The Jikei Univ. Sch. Med., ²The Jikei Ctr. Biofilm Res.)

P-052**Comparison of structome analysis data between *Mycobacterium smegmatis* and *M. tuberculosis***

○Hiroyuki Yamada, Kinuyo Chikamatsu, Akio Aono, Lina Yi, Yuriko Igarashi, Yoshiro Murase, Akiko Takaki, Satoshi Mitarai (Dept. Mycobacterium Reference and Research, the Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association.)

P-053***Vibrio* flagellar motor structure observed by cryo-electron tomography**

Zhu Shiwei², Tatsuro Nishikino¹, ○Michio Homma¹, Jun Liu² (¹Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., ²Dep. Path. Lab. Med., McGovern Med. Sch, UT Houston)

P-054**Morphological and molecular characterization of a motility-defective mutant of *Leptospira biflexa***

○Yuya Sasaki^{1,2}, Akihiro Kawamoto³, Kie Kasuga⁴, Shuichi Nakamura⁵, Ryoichi Sato¹, Makoto Ohnishi², Nobuo Koizumi² (¹Appl. Biol. Sci., Tokyo Univ. Agri. Tech., ²Dept. Bacteriol I, NIID, ³FBS, Osaka Univ., ⁴Dept. Pharm., Niigata Univ. Pharm. Appl. Life Sci., ⁵Dept. Appl. Phys., Tohoku Univ.)

P-055

Structural analysis of *Porphyromonas gingivalis* Type V pilus assembled in vitro

○Satoshi Shibata, Mikio Shoji, Koji Nakayama (Dept. Mol. Microbiol. Immunol., Grad. Sch. of Biomed Sci. Nagasaki Univ.)

P-056

S46 family dipeptidyl peptidases (DPPs) in the genus *Bacteroides*

○Yuko Ohara-Nemoto, Toshio Ono, Takayuki K. Nemoto (Dept. Oral Mol. Biol., Nagasaki Univ. Grad. Sch. Biomed. Sci.)

P-057

Role of DQAxLR motif in FlhG for the flagellar number regulation in *Vibrio alginolyticus*

○Akira Mizuno, Seiji Kojima, Michio Homma (Div. Bio. Sci., Sch. Sci., Nagoya Univ.)

P-058

Role of interactions of FliJ with FlgN and FliT chaperones in flagellar type III protein export

○Tohru Minamino¹, Miki Kinoshita¹, Yusuke V Morimoto², Keiichi Namba^{1,2} (¹Grad. Sch. Front. Biosci., Osaka Univ., ²QBiC. RIKEN)

P-059

Influence of GlcNAc and sialy transferase inhibitors on *Tannerella forsythia*

○Toshi Horie, Megumi Inomata, Takeshi Into, Yukitaka Murakami (Dept. of Oral Microbiol., Asahi Univ. Sch. of Dent.)

P-060

Involvement of OmpA-like proteins from *Porphyromonas gingivalis* in serum resistance

○Megumi Inomata, Takeshi Into, Toshi Horie, Yukitaka Murakami (Dept. of Oral Microbiol., Asahi Univ. Sch. of Dent.)

P-061

Novel structures of lipoteichoic acids common to *Lactobacillus gasseri*

○Ryosuke Kutomi¹, Tsukasa Shiraishi¹, Yamaha Sato², Naoki Morita³, Satoru Fukuya², Toyotaka Sato¹, Atsushi Yokota², Shin-ichi Yokota¹ (¹Department of Microbiology, Sapporo Medical University School of Medicine, ²Laboratory of Microbial Physiology, Research Faculty of Agriculture, Hokkaido University, ³Bioproduction Research Institute, National Institute of Advanced Industrial Science and Technology)

P-062

A novel serotype-specific glycopeptidolipid from clinical nontuberculous mycobacteria

○Nagatoshi Fujiwara¹, Minoru Ayata², Takashi Naka¹, Hirotaka Kuwata³, Shinji Maeda⁴ (¹Dept. Food and Nutrition, Fac. Contemporary Human Life Science, Tezukayama Univ., ²Dept. Virology, Osaka City Univ. Grad. Sch. Med., ³Dept. Oral Microbial. and Immunol. Showa Univ. Sch. Dentistry, ⁴Hokkaido Pharmaceutical Univ., Sch. Pharm.)

P-063

Carbohydrate backbone in the lipopolysaccharides isolated from *Vibrio parahaemolyticus* O7

○Yasunori Isshiki, Yoshitaka Uchimura, Harue Nomura, Seiichi Kondo (Dept. Microbiol., Sch. Pharm. Sci., Josai Univ.)

P-064

Disrupting processes of peptidoglycan observed by quick-freeze and deep-etch electron microscopy

○Yuhei O. Tahara^{1,2}, Isil Tulum^{1,2}, Makoto Miyata^{1,2} (¹Grad. Sch. of Sci., Osaka City Univ., ²OCARINA, Osaka City Univ)

P-065

Regulation of subcellular localization of MreB actin in *Escherichia coli*

○Daisuke Shiomi¹, Takuma Kawazura¹, Kanon Matsumoto¹, Koki Kojima¹, Fumiya Kato¹, Tomomi Kanai¹, Hironori Niki² (¹Dept. LifeSci, Col. Sci., Rikkyo Univ., ²Nat. Inst. Gen.)

P-066

Study on yellow pigment production of cariogenic *Streptococcus mutans*

○Minoru Hanaoka¹, Naoki Narisawa¹, Hidenobu Senpuku², Fumio Takenaga¹ (¹Grad. Sch. Bioresour. Sci., Nihon Univ., ²Dept. Bacteriol I., Natl. Inst. Infect. Dis.)

P-067

Lys-Lys cross-linker is putatively responsible for *Porphyromonas gingivalis* FimA oligomerization

○Marni Eusebio Cueno, Kenichi Imai (Dept. Microbiol., Nihon Univ. Sch. Dent.)

P-068

Novel fimbrial PGN_1808 in *Porphyromonas gingivalis*

○Keiji Nagano, Yoshiaki Hasegawa, Yasuo Yoshida, Fuminobu Yoshimura (Dept. Microbiol., Sch. Dent., Aichi Gakuin Univ.)

P-069

Enzymatic property and structure of bacterial cystathione β -synthase and development of the inhibitor

○Chiaki Yasutake¹, Tomoki Yoshida², Hisae Izuhara-Kihara², Teruo Kuroda³, Masanori Sugiyama², Yasuyuki Matoba³ (¹Sch. Pharm. Sci., Hiroshima Univ., ²Dept. Mol. Microbiol. Biotechnol., Grad. Sch. Biomed. Health Sci., Hiroshima Univ., ³Dept. Microbiol., Grad. Sch. Biomed. Health Sci., Hiroshima Univ.)

P-070

Phosphotransacetylase and acetate kinase for ATP biosynthesis are essential in *Porphyromonas gingivalis*

○Yasuo Yoshida¹, Mitsunari Sato¹, Yuichiro Kezuka², Yoshiaki Hasegawa¹, Keiji Nagano¹, Fuminobu Yoshimura¹ (¹Department of Microbiology, Aichi Gakuin University School of Dentistry, ²Department of Structural Biology, Iwate Medical University School of Pharmacy)

P-071**Regulation of histamine production in *Raoultella ornithinolytica***

○Haruyuki Imaohji¹, Tadasuke Ooka², Yasuhiro Gotoh³, Yoshitoshi Ogura³, Tetsuya Hayashi³, Tomomi Kuwahara¹
 (¹Dept. Microbiol., Sch. Med., Kagawa Univ., ²Dept. Microbiol., Grad. Sch. of Med. and Dent. Sci., Kagaoshima Univ., ³Dept. Bacteriol., Grad. Sch. of Med., Kyushu Univ.)

P-072**Mechanism of cysteine persulfide production in *Escherichia coli***

○Tomoaki Ida¹, Hideshi Ihara², Masanobu Morita¹, Shingo Kasamatsu¹, Tetsuro Matsunaga¹, Akira Nishimura¹, Shigemoto Fujii¹, Tomohiro Sawa³, Takaaki Akaike¹ (¹Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Dept. Biol. Sci., Grad. Sch. Sci., Osaka Pref. Univ., ³Dept. of Microbiol., Kumamoto Univ. Grad. Sch. Med. Sci.)

P-073**Formation of reactive sulfur species in bacteria**

○Hisyam Abdul Hamid¹, Tomoaki Ida¹, Tetsuro Matsunaga¹, Katsuhiko Ono², Shigemoto Fujii¹, Tomohiro Sawa², Takaaki Akaike¹ (¹Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ.)

P-074**Functional analyses of aminoacyl-tRNA synthetases for persulfides formation**

○Takeru Sonobe¹, Risa Kudo¹, Akira Nishimura¹, Tomoaki Ida¹, Soichiro Akashi¹, Minkyung Jung¹, Masanobu Morita¹, Tetsuro Matsunaga¹, Shingo Kasamatsu¹, Shigemoto Fujii¹, Hideshi Ihara², Takaaki Akaike¹ (¹Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Dept. Biol. Sci., Grad. Sch. Sci., Osaka Pref. Univ.)

P-075**Physiological analysis of cysteine hydopersulfide produced by cysteinyl-tRNA synthetase in yeast**

○Akira Nishimura¹, Ryo Nasuno², Tetsuro Matsunaga¹, Tomoaki Ida¹, Shingo Kasamatsu¹, Masanobu Morita¹, Shigemoto Fujii¹, Hiroshi Takagi², Takaaki Akaike¹
 (¹Department of Environmental Health Sciences and Molecular Toxicology, Tohoku University Graduate School of Medicine, ²Grad. Sch. Biol. Sci., Nara Inst. of Sci. and Tech.)

P-076**Regulatory function of alcohol dehydrogenase 5 protein polysulfidation in its enzymatic activity**

○Chazia Gluamo Abdula¹, Shingo Kasamatsu¹, Akira Nishimura¹, Md. Morshedul Alam², Tomoaki Ida¹, Tetsuro Matsunaga¹, Shigemoto Fujii¹, Hideshi Ihara³, Hozumi Motohashi², Takaaki Akaike¹ (¹Dept. of Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad Sch of Med., ²Dept. of Gene Exp. Regulation, IDAC, Tohoku Univ., ³Dept. of Biol. Sci., Grad. Sch. of Sci., Osaka Pref. Univ.)

P-077**Implication of viscosity-dependent variation in Leptospira motility for its colonization in the mucous layer**

○Kyosuke Takabe, Seishi Kudo, Shuichi Nakamura (Grad. Sch. Eng. Univ. Tohoku)

P-078**Single unit force of gliding machinery in *Mycoplasma mobile* measured by optical tweezers**

○Masaki Mizutani¹, Isil Tulum^{1,2}, Yoshiaki Kinoshita³, Takayuki Nishizaka³, Makoto Miyata^{1,2} (¹Grad. Sch. of Sci., Osaka City Univ., ²OCARINA, Osaka City Univ., ³Dept. Phys., Gakushuin Univ.)

P-079**Flagellar rotational switch mutants in EHPQR-motif of the rotor protein FliG**

○Tatsuro Nishikino¹, Atsushi Hijikata², Yasuhiro Onoue¹, Seiji Kojima¹, Tsuyoshi Shirai², Michio Homma¹ (¹Div. Biol. Sci. Grad. Sch. Sci., Nagoya Univ., ²Dep. Biosci., Nagahama Inst. of Bio-Sci. Tec.)

P-080**Chemotaxis Induced by Anaerobic Conditions and Gene Manipulation Method of *Spiroplasma eriocheiris***

○Natsuho Terahara¹, Isil Tulum^{1,2}, Peng Liu^{1,3}, Makoto Miyata^{1,2} (¹Grad. Sch. of Sci., Osaka City Univ., ²OCARINA, Osaka City Univ., ³Dept College of Life Sciences, Nanjing Normal Univ. PR. China)

P-081**P1 adhesin, the leg for infection of *Mycoplasma pneumoniae***

○U Matsumoto¹, Akihiro Kawamoto², Takayuki Kato², Yoshito Kawakita¹, Tsuyoshi Kenri³, Shigetarou Mori³, Keiichi Namba^{2,4}, Makoto Miyata^{1,5} (¹Grad. Sch. Sci., Osaka City Univ., ²Grad. Sch. Front. Biosciences., Osaka Univ., ³Infect. Dis. Inst., ⁴QBiC, Riken., ⁵OCARINA, Osaka City Univ.)

P-082**Structural analyses of Gli123 protein, essential for *Mycoplasma mobile* gliding**

○Daiki Matsuike¹, Yuhei O. Tahara^{1,2}, Tasuku Hamaguchi^{1,2}, Munehito Arai³, Makoto Miyata^{1,2} (¹Grad. Sch. Sci., Osaka City Univ., ²OCARINA, Osaka City Univ., ³Grad. Sch. Arts and Sci., The Univ. of Tokyo)

P-083**Direct observation of tension-sensitive leg movements for *Mycoplasma mobile* gliding**

○Woongkyung Kim¹, Masaki Mizutani¹, Makoto Miyata^{1,2} (¹Grad. Sch. Sci., Osaka City Univ., ²OCARINA, Osaka City Univ.)

P-084

Paired gliding motor of *Mycoplasma mobile* evolved from ATP synthase visualized by cryo-electron microscopy

○Takuma Toyonaga¹, Takayuki Kato², Akihiro Kawamoto², Tasuku Hamaguchi^{1,3}, Yuhei O. Tahara^{1,3}, Keiichi Namba^{2,4}, Makoto Miyata^{1,3} (¹Grad. Sch. of Sci., Osaka City Univ., ²Grad. Sch. of Front. Biosciences., Osaka Univ., ³OCARINA, Osaka City Univ., ⁴QBiC, RIKEN)

P-085

Nitrate salts suppress sporulation and production of enterotoxin in *Clostridium perfringens* strain NCTC8239

○Mayo Yasugi, Masami Miyake (Grad. Sch. Life Environ. Sci., Osaka Pref. Univ.)

P-086

Calcium ion boosts amino acid sensing by the chemoreceptor Mlp24 of *Vibrio cholerae*

○So-ichiro Nishiyama^{1,2}, Yohei Takahashi³, Katsumi Imada³, Ikuro Kawagishi^{1,2} (¹Dept. Frontier Biosci., Hosei Univ., ²Res. Cen. Micro-Nano Tech., Hosei Univ., ³Dep. Macromol. Sci., Grad. Sch. Sci., Osaka Univ.)

P-087

Eukaryotic protein kinase and phosphatase regulate morphology of *Clostridium perfringens*

○Hirofumi Nariya¹, Eiji Tamai², Tadashi Shimamoto¹ (¹Lab. Food Microbiol. Hyg., Grad. Sch. Biosphere Sci., Hiroshima Univ., ²Dept. Infect. Dis., Col. Pharm., Matsuyama Univ.)

P-088

Endogenous occurrence of protein S-guanylation in *Escherichia coli*: Target identification and genetic regulation

○Yuki Kakihana¹, Hiroyasu Tsutsuki², Katsuhiko Ono², Tomoaki Ida³, Takaaki Akaike³, Hideshi Ihara¹, Tomohiro Sawa² (¹Dept. Biol. Sci., Grad. Sch. Sci., Osaka Pref. Univ., ²Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ³Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Sch. Med.)

P-089

Regulation of electrophile signaling via reversible protein poly-S-guanylation

○Soichiro Akashi¹, Shingo Kasamatsu¹, Minkyung Jung¹, Tetsuro Matsunaga¹, Tomoaki Ida¹, Shigemoto Fujii¹, Tomohiro Sawa², Yoshito Kumagai³, Hozumi Motohashi⁴, Takaaki Akaike¹ (¹Dept. of Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. of Med., ²Dept. of Microbiol., Grad. Sch. of Med. Sci., Kumamoto Univ., ³Environ. Biol. Lab., Faculty of Med., Univ. of Tsukuba, ⁴Dept. of Gene Exp. Regul., IDAC, Tohoku Univ.)

P-090

Nobel sensor kinases involved in the quorum sensing in *Ralstonia solanacearum* strain OE1-1

○Kazusa Hayashi¹, Shiho Ishikawa¹, Yuka Mori¹, Kouhei Ohnishi^{1,2}, Akinori Kiba¹, Kenji Kai³, Yasufumi Hikichi¹ (¹Lab. Plant Pathol. & Biotechnol., Fac. Agri., Kochi Univ., ²RIMG, Kochi Univ., ³Sch. Life and Environmental Sci., Osaka Pref. Univ.)

P-091

A lectin, RS-IIL, contributes to feedback loop of the quorum sensing in *Ralstonia solanacearum*

○Shiho Ishikawa¹, Yuka Mori¹, Kazusa Hayashi¹, Kouhei Ohnishi², Akinori Kiba¹, Kenji Kai³, Yasufumi Hikichi¹ (¹Lab. Plant Pathol. & Biotechnol., Fac. Agri., Kochi Univ., ²RIMG, Kochi Univ., ³Sch. Life and Environmental Sci., Osaka Pref. Univ.)

P-092

The effect of extracellular polysaccharide alginate on cell-to-cell communication of *Pseudomonas aeruginosa*

○Jiayue Yang, Masanori Toyofuku, Ryosuke Sakai, Nobuhiko Nomura (Grad. Life and Environmental Sciences., Tsukuba Univ.)

P-093

A protein involved in the regulatory mechanism of the type IX secretion system in *Porphyromonas gingivalis*

○Hideharu Yukitake¹, Tomoko Kadokawa², Mariko Naito¹, Keiko Sato¹, Mikio Shoji¹, Koji Nakayama¹ (¹Dept. Mol. Microbiol. Immunol., Grad. Sch. Biomedical. Sci., Nagasaki univ., ²Div. Front. Life Sci., Dept. Med. and Dent. Sci., Nagasaki Univ.)

P-094

Global Tn-Seq analysis of the type IX secretion system in *Porphyromonas gingivalis*

○Mariko Naito, Koji Nakayama (Dept. Molecular Microbiol. Immunol., Nagasaki Univ. Graduate Sch. Biomedical Sci.)

P-095

Crystallization of a MATE-like multi-drug exporter from a commensal bacterium

○Katsuhide Taniguchi, Kei Fujimoto, Yoshiki Tanaka, Tomoya Tsukazaki (Grad. Sch. of Biol. Sci., NAIST)

P-096

Heterotrimer formation of the xenobiotic efflux transporters MdtB and MdtC of *Escherichia coli*

○Ikuro Kawagishi^{1,2}, Megumi Yamazaki¹, Kentaro Yamamoto¹, Masatoshi Nishikawa¹, Yoshiyuki Sowa^{1,2} (¹Dept. Frontier Biosci., Fac. Biosc. & Appl. Chem., Hosei Univ., ²Res. Cen. Micro-Nano Tech., Hosei Univ.)

P-097**Structural and biochemical characterization of the Clostridium perfringens autolysin Acp**

○Eiji Tamai¹, Hiroshi Sekiya¹, Nahomi Makihata¹, Hiromi Yoshida², Shigehiro Kamitori², Jun Maki¹ (¹Dept. Infec. Dis., Coll. Pharm., Matsuyama Univ., ²Life Sci. Res. Cent. Fac. Med., Kagawa Univ.)

P-098**Analysis of restriction-modification system of Helicobacter pylori affecting infection of bacteriophage KHP30**

○Yuichi Matsuzawa¹, Jumpei Uchiyama², Hiroaki Takeuchi³, Takako Ujihara⁴, Yumiko Hashida¹, Tomonori Higuchi¹, Moe Tanaka¹, Souichiro Tominaga¹, Masanori Daibata¹, Shigenobu Matsuzaki¹ (¹Dept. Microbiol. Infect., Kochi Med. Sch., Kochi Univ., ²Dept. Vet. Microbiol, Sch. Vet. Med., Azabu Univ., ³Dept. Clin. Lab. Med., Kochi Med. Sch., Kochi Univ., ⁴Science Research Center, Kochi Univ.)

P-099**Influence of the lytic enzyme Psm to intestinal bacterial flora**

○Hiroshi Sekiya, Eiji Tamai, Jun Maki (Dept. Inf. Dis., Col. Pharm. Sci., Matsuyama Univ.)

P-100**Effect of cyclic dinucleotide on bacterial biofilm formation**

○Shingo Takeuchi¹, Naoki Aoshima², Masaki Morishita², Yukio Kitade^{1,2}, Akiko Nishimura² (¹Dept. Material Chem., Sch. Eng., Aichi Inst. Tech., ²Dept. Appl. Chem., Fac. Eng., Aichi Inst. Tech.)

P-101**Reactive cysteine persulfides confer oxidative stress resistance on bacteria**

○Tomohiro Sawa¹, Katsuhiko Ono¹, Hiroyasu Tsutsuki¹, Tianli Zhang¹, Takaaki Akaike² (¹Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ²Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Sch. Med.)

P-102**Synthesis of Rp-nitro-cGMPS and its inhibitory effect of protein kinase G due to S-guanylation like protein modification**

○Yusuke Fujisawa¹, Katsuhiko Ono², Khandaker Ahtesham Ahmed³, Hiroyasu Tsutsuki², Takaaki Akaike⁴, Hideshi Ihara¹, Tomohiro Sawa² (¹Dept. Biol. Sci., Grad. Sch. Sci., Osaka Pref. Univ., ²Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ³Dept. Pathol., Sch. Med., Alabama Univ. Birmingham, ⁴Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Sch. Med.)

P-103**Immunocytochemical detection for 8-mercaptoguanosine-3',5'-cyclic monophosphate**

○Atsushi Kitamura¹, Misaki Matsubara¹, Shingo Kasamatsu², Takaaki Akaike², Hideshi Ihara¹ (¹Dept. Biol. Sci., Sch. Sci., Osaka Pref. Univ., ²Dept. Environ. Health Sci. Mol. Toxicol., Sch. Med., Tohoku Univ.)

P-104**Development of a simple and rapid detection method for hydrogen sulfide**

○Keiji Yabukawa¹, Shingo Kasamatsu², Chiho Okita¹, Takaaki Akaike², Hideshi Ihara¹ (¹Dept. Biol. Sci., Sch. Sci., Osaka Pref. Univ., ²Dept. Environ. Health Sci. Mol. Toxicol., Sch. Med., Tohoku Univ.)

P-105**Specific identification of Cys per/polysulfides formed in nascent peptides in Escherichia coli**

○Hideshi Ihara¹, Tomoaki Ida², Yusuke Fujisawa¹, Takaaki Akaike² (¹Dept. Biol. Sci., Sch. Sci., Osaka Pref. Univ., ²Dept. Environ. Health Sci. Mol. Toxicol., Sch. Med., Tohoku Univ.)

P-106**Uptake of low-dose radioactive Cs by intestinal flora-associated bacteria and probiotics bacteria**

○Kazuki Saito¹, Kengo Kuroda¹, Emiko Isogai¹, Junko Nishimura² (¹Tohoku University, Study Group of Disaster Animals, ²Hachinohe Institute of Technology)

P-107**Conditional expression of mycobacterial DNA-binding protein 1 function in mycobacteria**

○Anna G. Savitskaya¹, Akihito Nishiyama¹, Naoya Ohara², Sohkichi Matsumoto¹ (¹Dept. Bacteriol., Sch. Med., Niigata Univ., ²Dept. Oral Microbiol., Okayama Univ. Grad. Sch. Med. Dent. Pharmaceut. Sci.)

P-108**Histone-like protein-dependent control of mycobacterial functions critical for long-term survival**

○Akihito Nishiyama¹, Shymaa Enany^{1,2}, Yoshitaka Tateishi¹, Yuriko Ozeki¹, Anna G. Savitskaya¹, Takehiro Yamaguchi¹, Yukiko Nishida¹, Manabu Ato³, Sohkichi Matsumoto¹ (¹Dept. Bacteriol., Sch. Med., Niigata Univ., ²Dept. Microbiol. Immunol., Fac. Pharm., Suez Canal Univ., ³Dept. Immunol., Natl. Inst. Infect. Dis.)

P-109**Screening of genes related with ultraviolet A-sensitivity by transposon mutagenesis in Vibrio parahaemolyticus**

○Kazuaki Mawatari¹, Miki Maetani-Yasui^{1,2}, Airi Honjo¹, Risa Nishisaka¹, Miyuki Edagawa¹, Natsumi Iwamoto¹, Hitomi Watanabe¹, Takaaki Shimohata¹, Takashi Uebenso¹, Akira Takahashi¹ (¹Dept. Preventive Environmental Nutrition, Ins. Biomed Sci., Tokushima Univ. Grad. Sch., ²Grad. Sch. Comprehensive Rehabilitation, Osaka Prefecture Univ.)

P-110

Discovery of new energy metabolism mediated by sulfur respiration in mammals

○Takaaki Akaike¹, Tomoaki Ida¹, Tetsuro Matsunaga¹,
Masanobu Morita¹, Shingo Kasamatsu¹, Akira Nishimura¹,
Shigemoto Fujii¹, Hideshi Ihara², Minkyung Jung¹, Soichiro
Akashi¹, Tomohiro Sawa³, Hozumi Motohashi⁴ (¹Dept. Environ.
Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Dept.
Biol. Sci., Grad. Sch. Sci., Osaka Pref. Univ., ³Dept. Microbiol.,
Grad. Sch. Med. Sci., Kumamoto Univ., ⁴Dept. Gene Exp. Regul.,
IDAC, Tohoku Univ.)

P-111

Functional analyses of conserved sulfide metabolic enzyme Sqrdl by CRISPR/Cas system

○Masanobu Morita¹, Yoji Minamishima², Tomoaki Ida¹,
Tetsuro Matsunaga¹, Shingo Kasamatsu¹, Akira Nishimura¹,
Shigemoto Fujii¹, Fumito Ichinose³, Takaaki Akaike¹ (¹Dept. of
Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. of
Med., ²MIB, Kyushu Univ., ³MGH, Harvard Med. Sch.)

P-112

Imaging analysis of reactive persulfide species using novel fluorescent probes

○Tetsuro Matsunaga¹, Keitaro Umezawa², Mako Kamiya²,
Tomoaki Ida¹, Shigemoto Fujii¹, Yasuo Watanabe³, Ming Xian⁴,
Yasuteru Urano², Takaaki Akaike¹ (¹Dept. Environ. Health Sci.
Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Lab. Chem. Biol.,
Grad. Sch. Pharm. Sci., Tokyo Univ., ³Lab. Pharmacol., Showa
Pharm. Univ., ⁴Dept. Chem., Washington State Univ.)

P-113

Characterization of Biofilms formed by clinically isolated MRSA

○Akio Chiba^{1,2}, Reina Miyakawa¹, Shinya Sugimoto^{1,2}, Keigo
Yonemoto¹, Yoshimitsu Mizunoe^{1,2} (¹Dept. Bacteriol., Sch. Med.,
Jikei Univ., ²Center for Biofilm Research and Technology, Sch.
Med., Jikei Univ.)

P-114 (WS5-2)

Redundant roles of Eap and cell wall-anchored proteins in biofilm formation in *S. aureus*

○Keigo Yonemoto^{1,3}, Akio Chiba^{1,2}, Shinya Sugimoto^{1,2},
Mitsuru Saito³, Keishi Marumo^{2,3}, Yoshimitsu Mizunoe^{1,2}
(¹Department of Bacteriology, Jikei University School of
Medicine, ²Jikei Center for Biofilm Research and Technology,
Jikei University School of Medicine, ³Department of
Orthopaedic Surgery, Jikei University School of medicine)

P-115

Phenotypic effects of the *Staphylococcus aureus* biofilm inhibitor obtained by high-throughput screening

○Ken-ichi Okuda^{1,2}, Satomi Yamada¹, Mari Kajiyama¹, Yutaka
Yoshii^{1,2}, Tetsuo Nagano³, Takayoshi Okabe³, Hirotatsu
Kojima³, Yoshimitsu Mizunoe^{1,2} (¹Dept. Bacteriol., Jikei Univ.
Sch. Med., ²Jikei Ctr. Biofilm Res. Tech., Jikei Univ. Sch. Med.,
³Drug Discov. Initiative, Univ. Tokyo)

P-116

Analysis of a mutant of a spotted fever group rickettsia obtained by the treatment with meropenem

○Tsuneo Uchiyama (Dept. Microbiol., Grad. Sch. Med. Sci.,
Tokushima Univ.)

P-117

ABC-JK2 inhibits staphylococcal biofilm formation and resensitizes *S. aureus* to β-lactam antibiotics

○Yutaka Yoshii^{1,2}, Ken-ichi Okuda^{1,2}, Satomi Yamada¹, Mari
Nagakura¹, Shinya Sugimoto^{1,2}, Tetsuo Nagano³, Takayoshi
Okabe³, Hirotatsu Kojima³, Takeo Iwamoto⁴, Yoshimitsu
Mizunoe^{1,2} (¹Dept. Bacteriol., Jikei Univ. Sch. Med., ²Jikei Ctr.
Biofilm Res. Tech., Jikei Univ. Sch. Med., ³Drug Discov.
Initiative, Univ. Tokyo, ⁴Div. Mol. Cell Biol. Jikei Univ. Sch.
Med.)

P-118

Analysis of the domains of fibronectin-binding proteins (FbpC, FbpD) of *Clostridium perfringens*

○Kaoru Komoto¹, Hirofumi Nariya², Yasuo Hitsumoto³, Seiichi
Katayama³ (¹Dept. Life Sci., Grad. Sch. Sci., Okayama Univ.
Sci., ²Lab. Food Microbiol. Hyg., Grad. Sch. Biosphere Sci.,
Hiroshima Univ., ³Dept. Life Sci., Fac. Sci., Okayama Univ. Sci.)

P-119

Interference effects of proteolytic enzymes on biofilm formation of cariogenic *Streptococcus mutans*

○Tomohiro Irie, Naoki Narisawa, Fumio Takenaga (Grad. Sch.
Bioresour. Sci., Nihon Univ.)

P-120

Effect of nitric oxide on the expression mechanism of flagella in EHEC

○Kimitoshi Ichimura, Takeshi Shimizu, Kinnosuke Yahiro,
Masatoshi Noda (Dept. Mol. Infectiol., Grad. Sch. Med., Chiba
Univ.)

P-121

Pneumococcal Ccs4 is a virulence factor involved in the invasion into brain microvascular endothelial cells

○Yujiro Hirose, Masaya Yamaguchi, Kana Goto, Tomoko
Sumitomo, Masanobu Nakata, Shigetada Kawabata (Dept. Oral
Mol. Microbiol., Grad. Sch. Dent., Osaka Univ.)

P-122

Effects of polypyrrole on glucan-dependent and independent biofilm formation of *Streptococcus mutans*

○Hidenobu Senpuku¹, Ryo Nagasawa^{1,2}, Yusuke Suzuki^{1,3},
Makoto Ohnishi¹ (¹Dept. Bact. I, Natl. Inst. Infect. Dis., ²Facl.
Biosc. Appl. Chem., Univ. Hosei, ³Maxillofac. Surg., Sch. Dent.
Matsudo, Nihon Univ.)

P-123 (WS5-3)**Quantifying heterogeneity of *P. aeruginosa* mucoid variant biofilms using single-cell tracking**

○Andrew S. Utada¹, Jiayue Yang², Tatsunori Kiyokawa², Nobuhiko Nomura¹ (¹Fac. Life Env. Sci., Univ. Tsukuba, ²Grad. Sch. Life Env. Sci., Univ. Tsukuba)

P-124 (WS2-6)**Host E3 ubiquitin ligase limits pathogenicity of Enteropathogenic *E. coli***

○Jinhyeob Ryu¹, Ryota Otsubo³, Tamao Iida¹, Hiroshi Ashida², Chihiro Sasakawa^{2,3}, Hitomi Mimuro¹ (¹Div. Bact., Inst. Med. Sci. Univ. Tokyo, ²Med. Mycol. Res. Cent., Chiba Univ, ³Nippon Inst. for Biol. Sci.)

P-125**Functional variation of BabA on persistent infection by *Helicobacter pylori***

○Eisuke Kuroda, Hitomi Mimuro (Div. Bact., Inst. Med. Sci. Univ. Tokyo)

P-126***Porphyromonas gingivalis* gingipains cause cyclooxygenase 2 expression and prostaglandin E2 production**

○Masaaki Nakayama^{1,2}, Mariko Naito³, Koji Nakayama³, Naoya Ohara^{1,2} (¹Dept Oral Microbiol, Okayama Univ. Grad. Sch. Med, Dent, Pharmaceut. Sci., Okayama, Japan, ²ARCOCS, ³Div. Microbiol. Oral Infect., Nagasaki Univ. Grad. Sch. Biomed. Sci., Nagasaki Japan)

P-127**The dissociation of botulinum neurotoxin from toxin complexes is inhibited in host intestinal fluid**

○Masahiro Yutani¹, Yasuto Todokoro², Yasushi Torii³, Takuhiro Matsumura¹, Sho Amatsu^{1,4}, Yukako Fujinaga¹ (¹Dept. Bacteriol., Grad. Sch. of Med. Sci. Kanazawa Univ., ²Analytical Instrument Facility., Grad. Sch. Sci., Osaka Univ., ³Dept. Animal Sci., Sch. Agriculture, Tokyo Univ. of Agriculture, ⁴RIMD, Osaka Univ.)

P-128**Shiga-toxigenic *Escherichia coli* SubAB-induced ER stress causes stress granule formation through PKC**

○Kinnosuke Yahiro¹, Hiroyasu Tsutsuki², Kohei Ogura³, Sunao Iyoda⁴, Kimitoshi Ichimura¹, Makoto Ohnishi⁴, Kazuko Seto⁵, Masatoshi Noda¹ (¹Department of Molecular Infectiology Graduate School of Medicine, Chiba University, ²Department of Microbiology, Graduate School of Medical Sciences, Kumamoto University, Japan, ³Pathogenic Microbe Laboratory, Research Institute, National Center for Global Health and Medicine, Japan, ⁴Department of Bacteriology I, National Institute of Infectious Diseases, Japan, ⁵Division of Bacteriology, Osaka Prefectural Institute of Public Health, Japan)

P-129**Secretion signal of a type III effector BopN secreted by *Bordetella***

○Asaomi Kuwae, Ryutaro Nishimura, Akio Abe (Grad. Sch. Infect. Cont. Sci., Kitasato Univ.)

P-130**Does the aminopeptidase function as a hemolytic factor in *Eikenella corrodens*?**

○Hiroyuki Azakami^{1,2,3}, Masafumi Shimatani⁴, Fariha Jasir Mansur⁵, Kansei Kai¹ (¹Dept. Biol. Chem, Fac. Agri, Yamaguchi Univ., ²Grad. Sch. Inov., Yamaguchi Univ., ³Research Center Thermotolerant Microbial Resources, Yamaguchi Univ., ⁴Grad. Sch. Agri., Yamaguchi Univ., ⁵United Grad. Sch. Agri, Tottori Univ.)

P-131 (WS4-1)***Bordetella* Bcr4 positively regulates type III secreted proteins**

○Ryutaro Nishimura, Asaomi Kuwae, Akio Abe (Dept. Inf. Ctrl. nd. Immunol., Grad. Sch. Inf. Ctrl. Sci., Kitasato Univ.)

P-132 (WS4-6)**Characterization of macrophage cell death caused by *Shigella* infection**

○Shiho Suzuki, Toshihiko Suzuki (Div. Bacter. Pathogenesis, Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ.)

P-133 (WS7-5)**Analysis of *Francisella* effector interacting with centrosome**

○Takashi Shimizu¹, Jin Suzuki², Kenta Watanabe¹, Masahisa Watarai², Akihiko Uda³ (¹Dept. Vet. Public Health, Fac. Vet. Sci., Yamaguchi Univ., ²Dept. Pathol Prevent. Vet. Sci., Grad. Sch. Vet. Sci., Yamaguchi Univ., ³Dept. Vet. Sci., NIID)

P-134**A new insight into the role of VacA in AZ-521 cells through RPTPα**

○Masayuki Nakano^{1,2}, Kinnosuke Yahiro³ (¹Dept. Bacteriology, Inst. Tropical Med., Nagasaki Univ., ²Dept. Int'l Health., Inst. Tropical Med., Nagasaki Univ., ³Dept. Molecular Infectiology, Grad. Sch. Med., Chiba Univ.)

P-135**Cytotoxic action shown by N-terminal additional domain of *S. mitis*-derived 5 domain-type cytolysin**

○Airi Matsumoto¹, Atsushi Tabata², Toshifumi Tomoyasu², Hideaki Nagamune² (¹Dept. Biol. Sci. & Tech., Life Syst., Inst. Tech. & Sci., Tokushima Univ. Grad. Sch., ²Faculty of Bioscience and Bioindustry, Tokushima University)

P-136**Role of toxic shock syndrome toxin-1 on cervical and skin infections of *Staphylococcus aureus***

○Krisana Asano, Akio Nakane (Dept. Microbiol. Immunol., Hirosaki Univ. Grad. Sch. Med.)

P-137

Functional characterization of two T3SS2-related proteins, VgpA and VgpB, of *Vibrio parahaemolyticus*

○Sarunporn Tandhavanant¹, Shigeaki Matsuda¹, Hirotaka Hiyoshi², Tetsuya Iida¹, Toshio Kodama¹ (¹Department of Bacterial Infections, Research Institute of Microbial Diseases, Osaka University, ²Department of Medical Microbiology and Immunology, School of Medicine, University of California at Davis)

P-138

The regions involved in cell specificity of the S component of staphylococcal bi-component toxin LukED

○Zhao Peng, Jun Kaneko (Dept. Microbial Biotechnol., Sch. Agricultural Science., Tohoku Univ.)

P-139

Role of P2X receptor on cytotoxicity of *Clostridium perfringens* beta-toxin

○Megumi Namikawa, Soshi Seike, Masaya Takehara, Keiko Kobayashi, Masahiro Nagahama (Dept. Microbiol., Fac. Pharm. Sci., Tokushima Bunri Univ.)

P-140

Effect of *Clostridium perfringens* delta-toxin on intestinal epithelial cells

○Soshi Seike, Kazuaki Miyamoto, Masaya Takehara, Keiko Kobayashi, Masahiro Nagahama (Dept. Microbiol., Fac. Pharm. Sci., Tokushima Bunri Univ.)

P-141

***Clostridium perfringens* α-Toxin Impairs Lipid Raft Integrity in Neutrophils**

○Yoshino Fujihara, Masaya Takehara, Soshi Seike, Keiko Kobayashi, Masahiro Nagahama (Dept. Microbiol., Fac. Pharm. Sci., Tokushima Bunri Univ.)

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Role of phospholipid metabolism on oligomer formation of *Clostridium perfringens* epsilon-toxin

○Eri Hayashi¹, Masataka Oda², Masaya Takehara¹, Keiko Kobayashi¹, Masahiro Nagahama¹ (¹Dept. Microbiol., Fac. Pharm. Sci., Tokushima Bunri Univ., ²Dept. Microbiol., Infect. Cont. Sci., Kyoto Pharmaceutical Univ.)

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Influence of *Clostridium difficile* binary toxin on innate immune cells

○Hiroe Konishi^{1,2}, Chiaki Kajiwara², Tetsuo Yamaguchi², Yoshikazu Ishii², Kazuhiro Tateda² (¹Pediatrics, School of Medicine, Toho University graduate school, ²Department of Microbiology and Infectious Disease, School of Medicine, Toho University)

P-144

Expression of colA is regulated by HapR in *Vibrio alginolyticus*

○Takahiko Mima¹, Yutaro Nishikawa¹, Yusuke Nakata², Naoya Hatano³, Kazuyoshi Gotoh¹, Yumiko Yamamoto¹, Kenji Yokota⁴, Osamu Matsushita¹ (¹Dept. Bacteriol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ²Okayama Univ. Med. Sch., ³Kobe Univ. Grad. Sch. Med., ⁴Okayama Univ. Grad. Sch. Health Sci.)

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Role of the serine protease on invasion of *Aeromonas sobria* to intestinal epithelial cells

○Hidetomo Kobayashi¹, Eizo Takahashi², Keinosuke Okamoto³, Hiroyasu Yamanaka¹ (¹Fac. Pharm. Sci., Hiroshima International Univ., ²Fac. Pharm. Sci., Nihon Pharm. Univ., ³Okayama Univ. Grad. Sch. of Med., Dent. and Pharm. Sci.)

P-146 (WS4-2)

Modulation of NF-κB activation by *Salmonella* type III effectors

○Takeshi Haneda, Momo Takemura, Nobuhiko Okada (Dept. Microbiol. Sch. Pharm. Kitasato Univ.)

P-147

Elucidation the mechanism of hydrogen peroxide-enhanced Shiga toxin production in EHEC

○Hiroki Takeuchi¹, Kinnosuke Yahiro¹, Takeshi Shimizu¹, Hiroki Takahashi^{2,3}, Kimitoshi Ichimura¹, Masatoshi Noda¹ (¹Dept. Molecular Infectiology., Sch. Medicine., Chiba Univ., ²Medical Mycology Research Center, Chiba Univ, ³Molecular Chirality Research Center, Chiba Univ)

P-148

Determination of promoter region of serine protease gene of *Aeromonas sobria*

○Eizo Takahashi¹, Ayaka Kuriyama¹, Syunya Ogawa¹, Kengo Fuda¹, Keinosuke Okamoto² (¹Fac. Pharm. Sci., Nihon Pharm. Univ., ²Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ.)

P-149

NleA of EPEC interferes ASC-independent inflammasome and suppresses the pyroptotic death

Masaki Karino, ○Hilo Yen, Toru Tobe (Dept. Biomed. Info., Grad. Sch. Med., Osaka Univ.)

P-150

Heat-stable enterotoxin (STp) variants produced by enterotoxigenic *Escherichia coli* (ETEC)

○Akihiro Wada¹, Mohammad Monir Shah², Yoshio Ichinose² (¹Department of Bacteriology, Institute of Tropical Medicine, Nagasaki University, ²Kenya Research Station, Institute of Tropical Medicine, Nagasaki University)

P-151**Effects of nonsteroidal anti-inflammatory drugs on the cell lytic activity**

○Yоhei Tatematsu¹, Atsushi Tabata², Hideaki Nagamune², Kazuto Ohkura¹ (¹Pharm. Sci., Suzuka Univ. Med. Sci. Grad. Sch., ²Grad. Sch. Biosci. & Bioindust., Tokushima Univ. Grad. Sch.)

P-152 (WS4-5)**Suppression of inflammasome activity by subtilase cytotoxin produced by EHEC**

○Hiroyasu Tsutsuki¹, Tianli Zhang¹, Katsuhiko Ono¹, Kinnosuke Yahiro², Sunao Iyoda³, Kazuko Seto⁴, Makoto Ohnishi³, Masatoshi Noda², Takaaki Akaike⁵, Tomohiro Sawa¹ (¹Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ²Dept Mol. Infectiol., Grad. Sch. Med., Chiba Univ., ³Dept. Bacteriol., Natl. Inst. Infect. Dis., ⁴Div. Bacteriol., Osaka Pref. Inst. Public Health, ⁵Dept. Environ. Health Sci., Mol. Toxicol., Tohoku Univ. Grad. Sch. Med.)

P-153 (WS9-2)**The N-terminal domain of variant botulinum neurotoxin type A contributes to the potency to neurons**

○Tomoko Kohda¹, Kentaro Tsukamoto², Shunji Kozaki¹, Masafumi Mukamoto¹ (¹Dept. Vet. Sci., Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., ²Dept. Microbiol., Fujita Health Univ. Sch. Med.)

P-154**Structural analysis of a matrix anchor in bacterial collagenase to develop an osteogenic therapeutic**

○Osamu Matsushita¹, Kentaro Uchida², Hiroyuki Sekiguchi², Takehiko Mima¹, Kazuyoshi Gotoh¹, Yumiko Yamamoto¹, Kenji Yokota³, Masashi Takaso², Ryan Bauer⁴, Joshua Sakon⁴ (¹Dept. Bacteriol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ²Dept. Orthop. Surg., Kitasato Univ. Sch. Med., ³Okayama Univ. Grad. Sch. Health Sci., ⁴Dept. Chem. Biochem., Univ. Arkansas, USA)

P-155**Characteristics of enterotoxin-producing *Clostridium perfringens* type E isolate**

○Chie Monma, Keiko Kobayashi, Miki Ida, Yukako Shimojima, Akihiko Hirai, Kenji Sadamasu (Tokyo Met. Inst. P.H.)

P-156**Characterization of a *stx2f*-positive *Escherichia albertii* isolated from a HUS patient**

○Nozomi Ishijima¹, Sunao Iyoda¹, Yasuko Urushibara², Tadasuke Ooka³, Ken-ichi Lee¹, Kazuko Seto⁴, Atsushi Iguchi⁵, Toshio Sakurai², Makoto Ohnishi¹ (¹Dept. Bacteriol. I, Nat. Inst. Infect. Dis., ²Dept. Pediatr. Saitama Med. Cent., ³Dept. Microbiol., Grad. Sch. Med & Dent. Sci., Kagoshima Univ., ⁴Dept. Bacteriol., Osaka Pref. Inst. Publ. Health, ⁵Dept. Hyg. Microbiol., Fac. Agr., Miyazaki Univ.)

P-157 (WS7-4)**Legionella Effector Lpg1137 Shuts down ER-mitochondria Communication through Cleavage of Syntaxin 17**

○Kohei Arasaki¹, Yumi Mikami¹, James Havey², Stephanie R Shames², Craig R Roy², Mitsuo Tagaya¹ (¹Sch. Life Sci., Tokyo Univ. Pharm. and Life Sci., ²Department of Microbial Pathogenesis, Sch. Med., Yale Univ.)

P-158 (WS5-1)**Functional analysis of neutrophil elastase in pneumococcal pneumonia *in vitro***

○Hisanori Domon¹, Tomoki Maekawa^{1,2}, Kosuke Nagai¹, Yutaka Terao¹ (¹Div. Microbiol. Infect. Dis., Niigata Univ. Grad. Sch. Med. & Dent. Sci., ²Res. Cent. for Adv. Oral Sci., Niigata Univ., Grad. Sch. of Med. & Dent. Sci.)

P-159**Construction of a screening system evaluating the host immune response toward bovine *Staphylococcus aureus***

○Ryota Yoneyama, Mika Sato, Kohei Ihara, Tasuke Ando, Emiko Isogai, Hiroshi Yoneyama (Dept. Microbial Biotechnol., Tohoku Univ.)

P-160**Identification of the diagnostic candidate proteins of Relapsing fever *Borrelia* infection**

○Norihiko Tabuchi, Machiko Honda, Shigeyuki Kon (Lab. Mol. Immunol. Fac. Pharm. Pharm. Sci., Fukuyama Univ.)

P-161**Combination effect of colistin and approved drugs on colistin resistant bacteria**

○Aki Hirabayashi, Keigo Shibayama, Masato Suzuki (Dept. of Bacteriol. II, Nat. Inst. Infect. Dis.)

P-162 (WS7-6)**Survival strategy of *Helicobacter pylori* by sRNA**

○Kotaro Kiga^{1,2}, Bo Zhu¹, Ryo Kinoshita¹, Takahito Sanada¹, Hitomi Mimuro¹ (¹Div. Bacteriol., Int'l Res. Ctr. Infct. Dis., Inst. Med. Sci., Univ. Tokyo, ²Div. Bacteriol., Sch. Med., Jichi Med. Univ.)

P-163 (WS2-4)**Efflux Transporter of Siderophore in *Staphylococcus aureus* Contributes to Bacterial Fitness**

○Hidemasa Nakaminami^{1,2}, Chunhui Chen¹, Que Chi Truong-Bolduc¹, Eu Suk Kim^{1,3}, Yin Wang¹, Norihisa Noguchi², David Hooper¹ (¹Division of Infectious Diseases, Massachusetts General Hospital, Harvard medical School, ²Department of Microbiology, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences, ³Division of Infectious Diseases, Seoul National University Bundang Hospital)

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Enzymatic properties of quinol peroxidase of aggressive periodontopathic bacterium

○Tasuku Abe¹, Taketo Kawarai¹, Kiyoshi Konishi^{1,2} (¹Dept. Microbiol., Nippon Dent. Univ. Sch. Life. Dent. at Tokyo, ²Institute for Academic Initiatives, Osaka Univ.)

P-165

Induction of Sjögren-like sialoadenitis by repeated administration of a flagellar protein in mice

○Tomoaki Higuchi¹, Ikuko Haruta¹, Naoko Yanagisawa¹, Hidehiro Ueshiba², Toshifumi Osaka¹, Miyuki Miyake¹, Yoshihiro Abe¹, Junji Yagi¹ (¹Dept. Microbiol. Immunol., Tokyo Women's Med. Univ., ²Inst. Lab. Animals, Tokyo Women's Med. Univ.)

P-166 (WS9-4)

Involvement of PDIM/PGL from BCG in resistance to bile acids

○Shohei Tamura¹, Masaaki Nakayama², Nagatoshi Fujiwara³, Takayuki Wada⁴, Saburo Yamamoto⁵, Hiroki Kosaki², Seiji Iida¹, Naoya Ohara² (¹Dept. Oral Maxillofacial Reconst. Surg., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ²Dept. Oral Microbiol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., ³Dept. Food Nutr., Faculty Contemp Human Life Sci., Tezukayama Univ., ⁴Dept. Int. Health, Inst. Trop. Med., Nagasaki Univ., ⁵Japan BCG Lab.)

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The effects of a putative toxin-antitoxin module on rpoS expression and oxidative sensitivity in *E. coli*

○Tadayuki Iwase¹, Chiaki Okai², Akiko Tajima¹, Yoshimitsu Mizuno¹ (¹Dept. Bacteriol., Jikei Univ. Sch. Med., ²Undergrad. Sch. Med., Jikei Univ. Sch. Med.)

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Investigation of DNA-Protein interaction on AtxA-dependent virulence control system of *Bacillus anthracis*

○Kochi Toyomane, Daisuke Fujikura, Yoshikazu Furuta, Hideaki Higashi (Division of Infection and Immunity, Research Center for Zoonosis Control, Hokkaido University)

P-169

***Streptococcus pyogenes* endopeptidase O contributes to its pathogenesis via interaction with C1q**

○Mariko Honda, Tomoko Sumitomo, Masaya Yamaguchi, Masanobu Nakata, Shigetada Kawabata (Dept. Oral and Mol. Microbial. Grad. Sch. Dent., Osaka Univ.)

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Role of NO-metabolizing enzymes in enterohemorrhagic *Escherichia coli* under NO stress conditions

○Takeshi Shimizu¹, Akio Matsumoto², Masatoshi Noda¹ (¹Dept. Mol. Infectiol., Grad. Sch. Med., Chiba Univ., ²Dept. Phamacol., Grad. Sch. Med., Chiba Univ.)

P-171 (WS5-4)

Enterohaemorrhagic *E. coli* produces OMVs as an active defense system against antimicrobial peptide

○Akiko Urashima, Hilo Yen, ○Toru Tobe (Dept. Biomedical Informatics, Grad. Sch. Med., Osaka Univ.)

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Effects of SEp22 (Dps) on the induction of VBNC

***Salmonella* by exposure of low humidity-stress**

○Yuta Morishige¹, Noriko Nakamura-Minami¹, Ai Ueyama-Tamura¹, Akiko Ito¹, Yamasaki Manabu², Atsushi Koike¹, Fumio Amano¹ (¹Lab. Biodefense & Regulation, Osaka Univ. Pharm. Sci., ²Lab. Basic Biol., Inst. Microbiol. Chem.)

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Specification of the *Pseudomonas aeruginosa* serA gene and requirement for bacterial translocation

○Masashi Yasuda¹, Shouya Nagata¹, Satoshi Yamane¹, Chinami Kunikata¹, Yutaka Kida², Koichi Kuwano², Chigusa Suezawa¹, Jun Okuda¹ (¹Div. Microbiol., Dept. Med. Tech., Kagawa Pref. Univ. of Health Sci., ²Div. of Microbiol., Dept. of Infect. Med., Kurume Univ. Sch. of Med.)

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***Mycoplasma pneumoniae* prevents staurosporine-induced apoptosis in murine macrophage cell line, J774A.1**

○Takeshi Yamamoto, Yutaka Kida, Yuichi Sakamoto, Koichi Kuwano (Dept. Infect. Med., Sch. Med., Kurume Univ.)

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Selective diminishment of the bone marrow IgG-secreting plasma cell by the extracellular factor of *Salmonella*

○Akiko Takaya¹, Yuzuru Yamasaki¹, Christian Männe², Hiroto Kawashima¹, Koji Tokoyoda², Tomoko Yamamoto³ (¹Dept. Microbiol. Mol. Genet., Grad. Sch. Pharm. Sci., Chiba Univ., ²Deutsches Rheuma-Forschungszentrum Berlin, ³Med. Mycol. Res. Cent., Chiba Univ.)

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Anti-*M. leprae* Mce1A antibodies block the endothelial cell invasion by Mce1A-expressing *E. coli*

○Fathul Rachman¹, Naoya Sato^{2,4}, Viesta Fadlitha¹, Takao Fujimura^{1,2}, Hiroaki Takimoto³ (¹Dept. Environt. Dermatol., Kitasato Univ. Grad. Sch. Med. Sc., ²Dept. Dermatol., Kitasato Univ. Sch. Med., ³Dept. Biosc., Lab. Immunol., Kitasato Univ. Sch. Sc., ⁴Dept. Dermatol., Toshiba Rinkan Hosp.)

P-177 (WS2-1)

Virus-induced dysfunction of epithelial barrier promotes bacterial invasion into host cells

○Tomoko Sumitomo, Masanobu Nakata, Masaya Yamaguchi, Shigetada Kawabata (Dept. Oral and Mol. Microbiol., Grad. Sch. Dent., Osaka Univ.)

P-178 (WS7-2)***Streptococcus pyogenes* NADglycohydrolase as negative regulator for internalization into HeLa cells**

○Hirotaka Toh, Chihiro Aikawa, Shintaro Nakajima, Takashi Nozawa, Atsuko Nozawa, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

P-179**Surface proteins of *Treponema denticola* affect to invasion into the epithelial cells**

○Eitoyo Kokubu, Yuichiro Kikuchi, Kazuko Shibayama, Kazuyuki Ishihara (Department of Microbiology, Tokyo Dental College)

P-180***Campylobacter jejuni* infection activates amino acid uptake in HeLa cell**

○Takaaki Shimohata, Junko Kido, Yuri Sato, Sho Hatayama, Yuna Kanda, Shiho Fukushima, Aya Tentaku, Takashi Uebano, Kazuaki Mawatari, Akira Takahashi (Dept. Prevent. Environ. Nutr., Inst. Biomed. Sci., Tokushima Univ. Grad. Sch.)

P-181 (WS9-3)**Regulation of *Campylobacter jejuni* invasion by Tight Junctions in polarized intestinal epithelial cells**

○Sho Hatayama, Takaaki Shimohata, Sachie Amano, Junko Kido, Yuna Kanda, Aya Tentaku, Shiho Fukushima, Takashi Uebano, Kazuaki Mawatari, Akira Takahashi (Dept. Preventive Environment and Nutrition, Inst. Biomedical Science, Univ. Tokushima Graduate School)

P-182**Invasion mechanism of periodontopathic bacteria across gingival epithelial barrier**

○Shinpei Takahashi¹, Yu Shimoyama², Taichi Ishikawa², Daisuke Sasaki¹, Manami Nakasato¹, Takashi Yaegashi¹, Shigenobu Kimura³, Minoru Sasaki² (¹Div. Periodontol., Sch. Dent., Iwate Med. Univ., ²Div. Mol., Iwate Med. Univ., ³Dept. Dent. Hygiene, Kansai Women's Col.)

P-183 (WS7-3)***L. monocytogenes* δ^H activates the expression of competence genes and is essential for intracellular growth**

○Veronica Teresa Medrano Romero, Kazuya Morikawa (Bacteriol. Fac. Med. Univ. Tsukuba)

P-184 (WS9-6)**Identification of novel mycobacterial inhibitors against bacterial PknG kinase**

○Yuichi Kanehiro¹, Haruaki Tomioka², Yutaka Tatano³, Timmy Richardo¹, Hyoji Kim¹, Hisashi Iizasa¹, Hironori Yoshiyama¹ (¹Microbiology, Faculty of Medicine, Shimane University, ²School of Nursing, Yasuda Women's University, ³Department of Pharmacy, School of Pharmacy, IUHW)

P-185**A study on intracellular survival and dynamics of *Helicobacter cinaedi* during infection of human macrophages**

○Takuya Onouchi¹, Hitomi Takahashi¹, Kumiko Maeda¹, Junko Tomida², Yasuyuki Imai¹, Yoshiaki Kawamura², Masaki Miyake¹ (¹Lab. Microbiol. Immunol., Sch. Pharm. Sci., Univ Shizuoka., ²Dept. Microbiol., Sch. Pharm., Aichi Gakuin Univ.)

P-186**Antibody responses against recombinant mycobacterial antigens in experimentally infected cattle**

○Takashi Matsuba¹, Reiko Nagata², Satoko Kawaji², Chie Nakajima³, Yasuhiko Suzuki³, Jun Fujii¹ (¹Div. Bacteriol., Sch. Med. Tottori Univ., ²NIAH, NARO, ³CZC, Hokkaido Univ.)

P-187**Persistent infection of *Helicobacter cinaedi* in macrophages**

○Shigemoto Fuji¹, Tetsuro Matsunaga¹, Akira Nishimura¹, Tomoaki Ida¹, Tomohiro Sawa², Yoshiaki Kawamura³, Takaaki Akaike¹ (¹Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., ²Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ³Dept. Microbiol., Sch. Pharm., Aichi Gakuin Univ.)

P-188**Extraintestinal infection of *Helicobacter cinaedi* induced in Balb/c mice by experimental oral administration**

○Tatako Taniguchi¹, Yuji Saeki², Akihiko Okayama³, Tetsuya Hayashi⁴, Naoaki Misawa^{1,5} (¹CADIC, Univ. of Miyazaki, ²Clinical Lab., Univ. of Miyazaki Hospital, ³Med. Sci., Univ. of Miyazaki, ⁴Med. Sci., Kyushu Univ., ⁵Vet. Med. Sci., Univ. of Miyazaki)

P-189 (WS2-3)**Characterization of the pathogenicity of *Streptococcus intermedius* TYG1620 isolated from a human brain abscess**

○Makoto Kuroda, Noriko Hasegawa, Tsuyoshi Sekizuka, Yutaka Sugi, Kengo Kato, Akifumi Yamashita (Pathogen Genomics Center, National Institute of Infectious Diseases)

P-190**High efficient gliding motility of *Leptospira* on the solid surface**

○Hajime Tahara¹, Nobuo Koizumi², Yuya Sasaki², Kie Kasuga³, Akihiro Kawamoto⁴, Shuichi Nakamura¹ (¹Grad Sch. Eng., Tohoku Univ., ²Dept. Bacteriology I, NIID, ³Sch. Pharmacy., Niigata University of Pharmacy And Applied Life School, ⁴Grad Sch. Frontier Biosci., Osaka Univ.)

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A mouse model of *Helicobacter heilmannii*-induced gastric MALT lymphoma

○Hidenori Matsui¹, Tetsufumi Takahashi², Ikuo Uchiyama³, Katsushi Yamaguchi³, Shuji Shigenobu³, Masato Suzuki⁴, Emiko Rimbara⁴, Keigo Shibayama⁴, Somay Yamagata Murayama⁵, Masahiko Nakamura² (¹Kitasato Inst., Kitasato Univ., ²Sch. Pharm., Kitasato Univ., ³NIBB, ⁴Bacteriology II, NIID, ⁵Sch. Pharm., Nihon Univ.)

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Adherence of *Clostridium perfringens* spores to human intestinal epithelial cells Caco-2

○Hideyo Sakanoue¹, Chie Monma³, Mayo Yasugi¹, Takashi Nakano², Kouichi Sano², Masami Miyake¹ (¹Lab. Vet. Public Health, Div. Vet. Sci., Osaka Pref. Univ., ²Dept. Microbiol. Infect. Control, Osaka Med. College., ³Tokyo Metro. Inst. Public Health.)

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Molecular dissection of lung *Mycobacterium avium* complex disease granuloma by proteomics analysis

○Shintaro Seto¹, Kozo Morimoto², Tsutomu Yoshida³, Minako Hijikata¹, Ikumi Matsushita¹, Yuji Shiraishi³, Toshi Nagata⁴, Atsuyuki Kurashima², Naoto Keicho¹ (¹Dept. Pathophysiology and Host Defense, RIT, JATA, ²Respiratory Disease Center, Fukuhji Hospital, JATA, ³Section of Chest Surgery, Fukuhji Hospital, JATA, ⁴Dept. Health Science, Hamamatsu Univ. Sch. Med.)

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Virulence of leptospiras isolated from raccoons for hamster

○Jun Komura, Wano Hashiba, Ayako Tsujimoto, Ryo Murata, Naoya Kikuchi (Dept. pathobiol., Sch. Vet. Med., Rakuno Gakuen Univ.)

P-195

Studies on relationship between *Streptococcus dysgalactiae* subsp. *equisimilis* infection and diabetes mellitus

○Kohei Ogura, Tohru Miyoshi Akiyama (Pathogenic Microbe Laboratory, Department of Infectious Disease, Research Institute, National Center for Global Health and Medicine)

P-196 (WS5-6)

The capsule of fungal pathogen *Cryptococcus gattii* is required for the stress adaptation and the immune escape

○Yoshiko Otani^{1,2}, Keigo Ueno², Makoto Urai², Kiminori Shimizu¹, Michiyo Kataoka³, Noriko Saito³, Yoshitsugu Miyazaki², Yuki Kinjo² (¹Dept. Biolig. Sci. Fac. Indust. Sci. Technol, Tokyo Univ. of Sci., ²Dept. Chemother and Mycoses. NIID, ³Lab. Electro. Microscop., NIID)

P-197 (WS2-2)

Phylogenetic analysis of pneumococcal zinc metalloproteases and the role in bacterial meningitis

○Masaya Yamaguchi¹, Masanobu Nakata¹, Ryuichi Sumioka¹, Satoshi Wada¹, Yujiro Hirose¹, Yukihiro Akeda², Tomoko Sumitomo¹, Shigetada Kawabata¹ (¹Dept. Oral Mol. Microbiol., Grad. Sch. Dent., Osaka Univ., ²Dept. Infect. Cont. Prev., Grad Sch. Med., Osaka Univ.)

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Evaluation of Stx2f-producing *Escherichia albertii* virulence in mice model

○Atsushi Hineno^{1,2}, Yoshio Shimomura², Noritomo Yasuda¹, Sharda Prasad Awasthi¹, Jun Yatsuyanagi³, Shinji Yamasaki^{1,2} (¹Dept. Vet. Sci., Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., ²Dept. Vet. Sci., Sch. Life Environ. Sci., Osaka Pref. Univ., ³Yokote Health Inst.)

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Analysis of pathogenicity of *Acinetobacter baumannii* clinical isolate with lungs infection mouse

○Shigeru Tansho Nagakawa, Tsuneyuki Ubagai, Takane Ueda, Go Kamoshida, Yoshinori Sato, Yuka Unno, Satoshi Nishida, Yasuo Ono (Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ.)

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Evaluation of pathogenicity of multidrug-resistant *Acinetobacter baumannii* (MDRA)

○Satoshi Nishida, Takane Kikuchi Ueda, Tsuneyuki Ubagai, Yuka Unno, Go Kamoshida, Yoshinori Sato, Shigeru Tansho Nagakawa, Yasuo Ono (Dept. Microbiol. Immunol., Teikyo Univ. Sch. Med.)

P-201 (WS4-3)

The *S. flexneri* effector OspI controls intestinal inflammation in vivo

○Takahito Sanada¹, Hiroshi Ashida², Kotaro Kiga¹, Chihiro Sasakawa^{3,4}, Hitomi Mimuro¹ (¹Division of Bacteriology, Department of Infectious Diseases Control, International Research Center for Infectious Diseases, The Institute of Medical Science, University of Tokyo, ²Medical Mycology Research Center, Chiba University, ³Nippon Institute for Biological Science, ⁴Medical Mycology Research Center, Chiba University)

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Search of new angiogenic factor derived from *Bartonella henselae*

○Kentaro Tsukamoto¹, Naoaki Shinzawa², Yasuhiko Horiguchi², Takaaki Tsuji¹ (¹Dept. Microbiol., Fujita Health Univ. Sch. Med., ²Dept. Mol. Bact., RIMD, Osaka Univ.)

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Identification of *Rhodococcus equi* fitness genes during infection by signature-tagged mutagenesis

○Nuttapone Sangkanjanavanich, Tsutomu Kakuda, Shinji Takai (Dept. Anim. Hyg., Sch. Vet. Med., Kitasato Univ.)

P-204**Diversity of the genetic loci around the genes encoding cholesterol-dependent cytolsins in *S. mitis***

○Tatsuya Okahata¹, Shu Murakami¹, Atsushi Tabata², Yoshitoshi Ogura³, Tetsuya Hayashi³, Ayuko Takao⁴, Hisashi Okuni⁵, Toshifumi Tomoyasu², Nobuko Maeda⁴, Hideaki Nagamune² (¹Dept. Biol. Sci. & Tech., Life Syst., Inst. Tech. & Sci., Tokushima Univ. Grad. Sch., ²Faculty of Bioscience and Bioindustry, Tokushima University, ³Department of Bacteriology, Faculty of Medical Sciences, Kyushu University, ⁴Dept. Oral Bacteriol., Tsurumi Univ., ⁵Health Sci. Res. Inst. East Japan Co. Ltd.)

P-205 (WS2-5)**Genome-wide expression analysis of pathogenic genes in mouse organs**

○Hiroshi Hamamoto¹, Panthee Suresh¹, Paudel Atmika¹, Yutaka Suzuki², Kazuhisa Sekimizu¹ (¹Teikyo Univ. Instit. of Med. Mycol., ²Grad Sch of Front Sci, The Univ of Tokyo)

P-206**The influence of Group A Streptococcus prophages on host gene expression**

○Shunsuke Yamada, Chihiro Aikawa, Takashi Nozawa, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

P-207 (WS5-5)**Ectopic expression of O-antigen in *Bordetella pertussis* by a novel genomic integration system**

○Keisuke Ishigaki¹, Naoaki Shinzawa¹, Sayaka Nishikawa^{1,2}, Koichiro Suzuki^{1,3}, Yasuhiko Horiguchi¹ (¹Dept. Mol. Bacteriol., RIMD, Osaka Univ., ²Natl. Inst. Anim. Health, NARO, ³Res. Found. for Micro. Dise. of Osaka Univ.)

P-208**Genetic mutation of rocA in clinically isolated group A streptococci and its effect on virulence**

○Haruno Yoshida, Hidenori Matsui, Takashi Takahashi (Dept. Infect. Cont. Immunol., Kitasato Inst. Life Sch., Kitasato Univ.)

P-209 (WS9-5)**Relationship between a 16S rRNA mutation associated with kanamycin resistance and *M. tuberculosis* virulence**

○Shinya Watanabe^{1,2}, Kazunori Matsumura³, Hiroki Iwai³, Keiji Funatogawa⁴, Masako Kato³, Fumiko Kirikae³, Tohru Miyoshi Akiyama¹, Longzhu Cui², Teruo Kirikae³ (¹Lab. Pathogenic Microbes, NCGM, ²Div. Bacteriol., Dept. Infect. Immunity, Sch. Med., Jichi Med. Univ., ³Dept. Infect. Dis., NCGM, ⁴Tochigi Prefectural Institute of Public Health and Environmental Science)

P-210**Proliferation mechanisms of life-threatening opportunistic pathogen in wound infection**

○Kohei Yamazaki¹, Takashige Kashimoto¹, Takehiro Kado¹, Yukihiko Akeda², Kazuki Yoshioka³, Toshio Kodama⁴, Shunji Ueno¹ (¹Lab. Vet. Public Health, Sch. Vet. Med., Kitasato Univ., ²Univ. Hospital, Osaka Univ., ³Lab. Vet. Anatomy, Sch. Vet. Med., Kitasato Univ., ⁴RIMD, Osaka Univ.)

P-211 (WS9-1)***Bordetella* PlrS-mediated virulence regulatory system is important for the respiratory infection**

○Mai Higashi¹, Sayaka Nishikawa^{1,2}, Keisuke Ishigaki¹, Hiroyuki Abe¹, Yasuhiko Horiguchi¹, Naoaki Shinzawa¹ (¹Dept. Mol. Bacteriol., RIMD, Osaka Univ., ²Natl. Inst. Anim. Health, NARO)

P-212 (WS7-1)**The exploration of novel virulence factor and virulence regulator in Group A Streptococci**

○Norihiko Takemoto¹, Shinya Watanabe², Tohru Miyoshi Akiyama¹ (¹Pathogenic Microbe lab., NCGM, ²Div. Bacteriol., Dept. Infect. Immunity, Sch. Med., Jichi Med. Univ.)

P-213**Interaction of virulent *Leptospira interrogans* with renal epithelial cells**

○Claudia Toma¹, Takayoshi Yamaguchi¹, Naomi Higa¹, Arina Matsumoto¹, Nobuhiko Okura², Noboru Nakasone¹, Toshihiko Suzuki³, Tetsu Yamashiro¹ (¹Dept. Bacteriol., Grad. Sch. Med., Univ. of the Ryukyus, ²Dept. Mol. Anatomy, Grad. Sch. Med., Univ. of the Ryukyus, ³Tokyo Med. and Dental Univ., Dept Bact. Pathog. Infect. and Host Responses)

P-214**The effect of bacterial competition on conjugative transfer of antimicrobial resistance plasmids**

○Maho Yoshida^{1,2}, Aki Hirabayashi¹, Yoshichika Arakawa², Keigo Shibayama¹, Masato Suzuki¹ (¹Dept. Bacteriol. II, Natl. Inst. Infect. Dis., ²Dept. Bacteriol., Sch. med., Nagoya. Univ.)

P-215**Analysis of persistent infection mechanism of *Helicobacter pylori* using hyper-mutator strain**

○Ryo Kinoshita¹, Kotaro Kiga¹, Arpana Sood¹, Yoshitoshi Ogura², Tetsuya Hayashi², Hitomi Mimuro¹ (¹Division of Bacteriology, Department of Infectious Diseases Control, International Research Center for Infectious Diseases, The Institute of Medical Science, The University of Tokyo, ²Department of Bacteriology, Faculty of Medical Sciences, Kyushu University)

P-216 (WS4-4)

Inhibitory effects of diffusely adherent *Escherichia coli* strains on cytokine secretions from epithelial cells

○Saki Yanagida¹, Sayaka Tamai¹, Takumi Noju¹, Yoshihiko Tanimoto¹, Takehiro Matsuzaki¹, Eriko Nakadai^{1,2}, Yoshihiro Yamaguchi², Toshio Kodama³, Tetsuya Iida³, Yoshikazu Nishikawa¹ (¹Grad. Sch. Human Life Sci., Osaka City Univ., ²Adv. Res. Inst. Nat. Sci. Tech., Osaka City Univ., ³Inst. Microb. Dis., Osaka Univ.)

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The exploration of borrelial factors which may be involved in efficient infection in tick

○Ai Takano¹, Yukie Itoh¹, DeMar Taylor², Hiroki Kawabata³, Ken Maeda¹ (¹Joint Faculty of Vet. Med., Yamaguchi Univ., ²Univ. Tsukuba, ³Bacteriology-I, Nat. Inst. Infect. Dis.)

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Impact of giant viruses on the evolution of chlamydiae cohabiting in amoebae

○Hiroyuki Yamaguchi, Sumire Yamazaki, Junji Matsuo, Torahiko Okubo (Faculty Health Sci. Hokkaido Univ.)

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Independent evolution of genome and epigenome in *Helicobacter pylori*

○Yoshikazu Furuta¹, Kenji Kojima^{1,2}, Koji Yahara^{1,3}, Masaki Fukuyo¹, Yuh Shiwa⁴, Shin Nishiumi⁵, Masaru Yoshida⁵, Takeshi Azuma⁵, Hirofumi Yoshikawa⁴, Ichizo Kobayashi¹ (¹Grad. Sch. Frontier Sci., Univ. Tokyo, ²Genet. Informat. Res. Inst., ³Nat. Inst. Infect. Dis., ⁴Tokyo Univ. Agric., ⁵Sch. Med., Kobe Univ.)

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High precision SNP detection between closely-related isolates using whole genome sequencing data

○Dai Yoshimura¹, Yasuhiro Gotoh², Yoshitoshi Ogura², Tetsuya Hayashi², Takehiko Itoh¹ (¹Grad. Sch. Biosci. Biotech., Tokyo Tech., ²Dept. Bact., Grad. Sch. Med. Sci., Kyushu Univ.)

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Genome and transcriptome analyses of micro-organisms to improve yield of substance

○Yusuke Nomura¹, Shuichi Hirose², Satoko Nakamura³, Norimasa Kasiwagi³, Chiaki Ogino^{3,4}, Akihiro Kondo^{3,4}, Wataru Nemoto¹ (¹Life Sci. & Eng., Grad. Sch. of Sci & Eng., TDU., ²NAGASE R&D Center, NAGASE & CO., LTD., ³Chem Sci. & Eng., Grad. Sch. of Eng., Kobe Univ., ⁴Org. of Adv Sci & Tec., Kobe Univ.)

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Construction of the Asian tubercle whole genome sequence database, “GReAT”

○Takemasa Takii¹, Satoshi Mitarai¹, Tomotada Iwamoto², Naoto Keicho³, Shiomi Yoshida⁴, Minako Hijikata³, Akiko Takaki¹, Kouhei Seki¹, Yasutaka Wakabayashi¹, Kinuyo Chikamatsu¹, Akio Aono¹, Yuriko Igarashi¹, Yoshiro Murase¹, Kengo Kato⁵, Tsuyoshi Sekizuka⁵, Akifumi Yamashita⁵, Makoto Kuroda⁵, Seiya Kato⁶ (¹Dept. Mycobacterium Ref. & Res., RIT, JATA, ²Dept. Infect. Dis., KIT, ³Dept. Phath. and Defen., RIT, JATA, ⁴Nat. Hosp. Org., Kinki Chuo Chest Medi. Cent., ⁵Path. Gen. Cent.r, NIID, ⁶Res. Inst. Tubercul., JATA)

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Tool to identify critical variants by genome comparisons of multiple bacterial generations

○Yuto Kimura¹, Yusuke Nomura¹, Wataru Nemoto¹, Shuichi Hirose² (¹TDU, ²NAGASE & CO., LTD.)

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Elucidation of quantitative structural diversity of high rearrangement regions, shufflons, in IncI2 plasmids

○Tsuyoshi Sekizuka¹, Michiko Kawanishi², Ayaka Shima³, Kengo Kato¹, Akifumi Yamashita¹, Mari Matsui³, Satowa Suzuki³, Makoto Kuroda¹ (¹Pathogen Genomic Center, Nat. Inst. Infect. Dis., ²Assay Div. II, Nat. Vet. Assay Lab., ³Dep. Bacteriol. II, Nat. Inst. Infect. Dis.)

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Analysis of botulinum neurotoxin type B6 gene-encoding plasmid in *Clostridium botulinum* type B

○Yoshihiko Sakaguchi¹, Jumpei Uchiyama², Koji Hosomi³, Tomoko Kohda⁴, Yoshitoshi Ogura⁵, Tetsuya Hayashi⁵, Shunji Hayashi¹, Shunji Kozaki⁴, Masafumi Mukamoto⁴ (¹Dept. Microbiol., Kitasato Univ. Sch. Med., ²Dept. Vet. Microbiol., Sch. Vet. Med., Azabu Univ., ³Lab. Vac. Mat., National Inst. Biomed. Innov., Health, Nut., ⁴Dept. Vet. Sci., Grad. Sch. Life Environ. Sci., Osaka Prefect. Univ., ⁵Dept. Bacteriol., Facul. Med. Sci., Kyushu Univ.)

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Phylogeny and virulence gene repertoire of 521 *E. coli* O26 strains isolated in Japan and other countries

○Yoshitoshi Ogura¹, Mariko Kuroki², Shuji Yoshino², Keiko Kimata³, Junko Isobe³, Kazuko Seto⁴, Eriko Maeda⁵, Yoshiaki Etoh⁵, Masahiro Kusumoto⁶, Masato Akiba⁶, Nozomi Ishijima⁷, Ken-ichi Lee⁷, Sunao Iyoda⁷, Makoto Ohnishi⁷, Tadasuke Ooka⁸, Yasuhiro Gotoh¹, Tetsuya Hayashi¹ (¹Dep. Bact., Fac. Med. Sci., Kyushu Univ., ²Dep. Micro., Miyazaki Pref. Inst. Pub. Health Environ., ³Dep. Bact., Toyama Inst. Health, ⁴Dep. infec., Osaka Pref. Inst. Pub. Health, ⁵Div. Patho. Bac., Fukuoka Inst. Health Env. Sci., ⁶Natio. Inst. Animal Health, Natio. Agr. Food Res. Organ., ⁷Dep. Bac. Natio. Inst. Infec. Dis., ⁸Dep. Micro., Grad. Sch. Med. Den. Sci., Kagoshima Univ.)

P-227**Effect of simulated microgravity on horizontal gene transfer frequency**

○Junri Aoki¹, Ayaka Kawabata¹, Masao Nasu², Tomoaki Ichijo³

(¹Sch. Pharmaceutical Sci. Osaka Univ., ²Fac. Pharm., Osaka Ohtani Univ., ³Grad. Sch. Pharmaceutical Sci. Osaka Univ.)

P-228**Gene transfer by natural genetic transformation in *Moraxella catarrhalis***

○Chihiro Tani (Dept. Microbiol. Immunol., Grad. Sch. Health Care Sci., Tokyo Medical and Dental Univ.)

P-229**Gene expressions of neutrophils infected with *Acinetobacter baumannii***

○Takane Kikuchi Ueda, Tsuneyuki Ubagai, Go Kamoshida, Shigeru Tansho Nagakawa, Satoshi Nishida, Yuka Unno, Yasuo Ono (Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ.)

P-230**Relationships between phenotypes and pseudogenes of *Salmonella enterica* serovar *Abortusequi***

○Masato Akiba^{1,4}, Taketoshi Iwata¹, Tsuyoshi Sekizuka², Makoto Kuroda², Masahiro Kusumoto¹, Yuta Kinoshita³, Hidekazu Niwa³, Yoshiya Katayama³ (¹Div. Bacterial Parasitic Res., Natl. Inst. Animal Health, NARO, ²Pathogen Genomics Center, Natl. Inst. Infect. Dis, ³Microbiol. Div., Equine Res. Inst., JRA, ⁴Grad. Sch. Life Environ. Sci., Osaka Pref. Univ.)

P-231**Identification and expression analysis of small RNAs in *Aggregatibacter actinomycetemcomitans***

○Yuichi Oogai¹, Yasuhiro Gotoh², Yoshitoshi Ogura², Tetsuya Hayashi², Hitoshi Komatsuzawa¹ (¹Dept. Oral-Microbiology, Grad. Sch. Med. and Dent., Kagoshima Univ., ²Dept. Bacteriology, Grad. Sch. Med., Kyushu Univ.)

P-232***Anaplasma phagocytophilum* P44 expression diversity in infected RF/6A cell line**

○Masahiko Shimada, Naoya Takamoto, Hongru Su, Norio Ohashi (Lab. Microbiol., Grad. Sch. Integrated Pharm. Nutr. Sci., Univ. Shizuoka)

P-233**Regulation of natural competence by PTS in *Vibrio cholerae***

○Shouji Yamamoto (Dept. Bac. I., Nat. Inst. Infect. Dis.)

P-234**Development of novel expression system using codon-modified T7 RNAP and Xyl-uptake system for clostridial gene**

○Shunya Sawairi¹, Hirofumi Nariya², Kazue Nakane¹, Shigeru Miyata¹ (¹Coll. Biosci. Biotech., Chubu Univ., ²Grad. Sch. Biosphere Sci., Hiroshima Univ.)

P-235**Functional analysis of clostridial cellulosome enzymes using *Clostridium perfringens* expression system**

○Ayaka Toritani¹, Shunya Sawairi¹, Kazue Nakane¹, Ryuichi Moriyama¹, Eiji Tamai², Shigeru Miyata¹ (¹Coll. Biosci. Biotech., Chubu Univ., ²Dept. Microbiol., Fac. Med., Matsuyama Univ.)

P-236**The role of MazEF in *Staphylococcus aureus* biofilm formation**

○Fuminori Kato^{1,2}, Motoyuki Sugai² (¹Grad. Sch. Biomed and Heal Sci., Hiroshima Univ., ²Dept. Bacteriol., Grad. Sch. Biomed and Heal Sci., Hiroshima Univ.)

P-237**Role of an extracytoplasmic function sigma factor, PGN_0319, in hemin utilization by *Porphyromonas gingivalis***

○Yuichiro Kikuchi¹, Koki Ota², Kazuko Shibayama¹, Eitoyo Kokubu¹, Atsushi Saito², Kazuyuki Ishihara¹ (¹Dept. Microbiol., Tokyo Dent Coll., ²Dept. Periodontol., Tokyo Dent Coll.)

P-238**Biofilm formation ability in *cia* and *com* gene deleted strains of *Streptococcus intermedius***

○Ayuko Takao¹, Hideaki Nagamune², Toshifumi Tomoyasu², Atsushi Tabata², Nobuko Maeda¹ (¹Dept. Oral Microbiol., Sch. Dent. Med., Tsurumi Univ., ²Dept. Biosci. & Bioindust., Grad. Sch. Biosci. & Bioindust., Tokushima Univ Grad. Sch.)

P-239**Two *esp* (expression in minor subpopulation) genes confer dry stress resistance to *Staphylococcus aureus***

○Vishal Samir Gor, Aya Takemura, Kazuya Morikawa (Bacteriol. Fac. Med. Univ. Tsukuba)

P-240**The RNA-binding protein Hfq plays an important role in the post-transcriptional regulation of *phoE***

○Chizuru Onoda, Naoki Sudo, Yasuhiko Sekine (Dept. Life Sci., Coll. Sci., Rikkyo Univ.)

P-241**Impact of T95S and D668G in *GyrA* of *Mycobacterium tuberculosis* on compensatory evolution**

○Yuki Ouchi¹, Kentaro Koide¹, Tomoyuki Yamaguchi¹, Jong-Hoon Park¹, Hyun Kim², Chie Nakajima¹, Yasuhiko Suzuki¹ (¹Div. Biores., C2C, Hokkaido Univ., ²Dept. Bacteriol. II, NIID)

P-242**Regulation of the LEE expression by a small RNA, Esr41, and RNA-binding protein, Hfq, in EHEC**

○Naoki Sudo¹, Akiko Soma², Sunao Iyoda³, Daiki Kazama¹, Yasuhiko Sekine¹ (¹Dept. Life Sci., Coll. Sci., Rikkyo Univ., ²Div. Appl. Biol. Chem. Fac. of Hortic. Chiba Univ., ³Dept. Bacteriol., Natl. Inst. Infect. Dis.)

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Neisseria meningitidis EF-P and its active-site arginine residue are essential for cell viability

○Tatsuo Yanagisawa^{1,2}, Hideyuki Takahashi³, Takehiro Suzuki⁴, Akiko Masuda⁴, Naoshi Dohmae⁴, Shigeyuki Yokoyama^{1,2} (¹RIKEN · Struct. Biol. Lab., ²RIKEN · SSBC, ³NIID · Dept. Bacteriol., ⁴RIKEN · CSRS)

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Functional analysis of TonB-dependent receptors in *Ralstonia solanacearum*

○Kouhei Ohnishi, Ryosuke Watanabe, Akinori Kiba, Yasufumi Hikichi (Kochi University)

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Effects of various dehydrogenase gene deletion on hydrogen production of *Clostridium perfringens*

○Keina Nakamura¹, Kazue Nakane¹, Shunya Sawairi¹, Akinobu Okabe², Shigeru Miyata¹ (¹Coll. Biosci. Biotech., Chubu Univ., ²Chugoku Gakuen Univ.)

P-246

A xylose metabolism regulator regulates the expression of T3SS component genes in *Xanthomonas oryzae*

Yumi Ikawa, ○Seiji Tsuge (Lab. Plant Pathol., Sch. Agric., Kyoto Pref. Univ.)

P-247

Rapid and affordable method of size-selected DNA preparation for PacBio library construction

○Masanori Hashino^{1,2}, Kengo Kato¹, Tamaki Ito^{1,2}, Mari Matsui³, Satowa Suzuki³, Akifumi Yamashita¹, Tsuyoshi Sekizuka¹, Makoto Kuroda¹ (¹Pathogen Genomics Center Nat. Inst. Infect. Dis., ²AMED · research resident, ³Dept. Bacteriol. II, Nat. Inst. Infect. Dis)

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Analysis of *Clostridium perfringens* etx promoter

○Namiko Nodera¹, Haruki Fukui¹, Shunya Sawairi¹, Seiichi Katayama², Shigeru Miyata¹ (¹Coll. Biosci. Biotech., Chubu Univ., ²Dept. Life Sci., Fac. Sci., Okayama Univ. Sci.)

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Construction of plasmid pXM derivative for genome editing of *Clostridium perfringens*

○Yuya Fujita¹, Keina Nakamura¹, Shunya Sawairi¹, Hirofumi Nariya², Shigeru Miyata¹ (¹Coll. Biosci. Biotech., Chubu Univ., ²Grad. Sch. Biosphere Sci., Hiroshima Univ.)

P-250

Characterization of PRGBS Forming Small Less-β-Hemolytic Colonies on Sheep Blood Agar

○Hirotsugu Banno¹, Kouji Kimura¹, Yosuke Tanaka², Tsuyoshi Sekizuka³, Makoto Kuroda³, Wanchun Jin¹, Keiko Yamada¹, Jun-ichi Wachino¹, Keigo Shibayama⁴, Yoshichika Arakawa¹ (¹Dept. Bacteriol. Nagoya Univ. Grad. Sch. Med., ²Dept. Microbiol. Lab. Yokohama City Seibu Hosp. St. Marianna Univ. Grad. Sch. Med., ³Pathogen Genomic Center, NIID., ⁴Dept. Bacteriol. II, NIID.)

P-251

Characteristics of a novel extra-chromosomal DNA inherited in *S. anginosus* subsp. *anginosus*

○Seiya Otsuka¹, Atsushi Tabata², Toshifumi Tomoyasu², Hideaki Nagamune² (¹Dept. Biol. Sci. & Tech., Life System, Inst. Tech. & Sci., Tokushima Univ. Grad. Sch., ²Faculty of Bioscience and Bioindustry, Tokushima University)

P-252

Identification of a virulence that is conserved in the biotypes of *[Pasteurella] pneumotropica*

○Hiraku Sasaki^{1,2}, Hiroki Ishikawa², Hidehiro Ueshiba³, Eiichi Kawamoto⁴, Fumio Ike⁵ (¹Department of Health Science, School of Health and Sports Science, Juntendo University, ²Department of Microbiology and Immunology, Showa University School of Medicine, ³Institute of Laboratory Animals, Tokyo Women's Medical University, ⁴Animal Research Center, Tokyo Medical University, ⁵Experimental Animal Division, RIKEN BioResource Center)

P-253

Analyses of water-insoluble polysaccharide synthase gene of *Streptococcus dentiloxodontae*

○Noriko Kuwahara, Masanori Saito, Osamu Tsuzukibashi, Tomoko Ochiai (Dept. Microbiol. Immunol, Nihon Univ. Sch. of Dent. at Matsudo)

P-254

Development of a new measurement method of the antibacterial effect of medium chain fatty acid

○Yumiko Mori, Miki Matsue, Satoshi Nagase, Yusuke Kotani, Yoshie Yuasa, Kazuki Hayashi, Kayo Sugitani, Shigeumi Okamoto (Dept. Clin. Lab. Sci., Sch. Med. Sci., Kanazawa Univ.)

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Eradication of *Pseudomonas aeruginosa* biofilm by Lactate dehydrogenase inhibition

○Kotaro Chihara¹, Yuto Kawai¹, Shinya Matsumoto², Satoshi Tsuneda¹ (¹Dep. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ., ²Dep. Bacteriol., Grad. Sch. Med., Nagoya Univ.)

P-256**Chili Pepper Component Capsaicin Modulates *Chlamydia trachomatis* Growth in HeLa Cells**

○Kazuya Yamakawa¹, Junji Matsuo¹, Torahiko Okubo¹, Shinji Nakamura², Hiroyuki Yamaguchi¹ (¹Faculty Health Sci. Hokkaido Univ., ²Div. Biomed. Imag. Res., Juntendo Univ. Grad. Sch. Med.)

P-257**Propolis immediately triggers bactericidal action through the aberrant bleb formation at the bacterial surface**

○Yuri Yoshimasu^{1,2}, Tsuyoshi Ikeda³, Akira Yagi⁴, Hirokazu Oghara¹, Yasushi Morinaga¹, Soichi Furukawa¹, Ryoma Nakao² (¹Grad. Sch. Bioresour. Sci., Nihon Univ., ²Dept. Bac. I, Natl. Inst. Infect. Dis., ³Dept. Pharm. Sci., Sojo Univ., ⁴R&D, MST, Olympus Co.)

P-258**Identification of novel inhibitor for Group A *Streptococcus* growth**

○Chihiro Aikawa¹, Masato Hoshino², Satoru Nagatoishi², Kouhei Tsumoto², Ichiro Nakagawa¹ (¹Dept. Microbiol., Grad. Sch. Med., Kyoto Univ., ²Dept. Bioeng., Sch. Eng., Univ. of Tokyo)

P-259**Antibacterial activity of WQ-3810, a novel fluoroquinolone, against *Salmonella Typhimurium***

○Kentaro Koide, Siriporn Kongsoi, Yuki Ouchi, Jong-Hoon Park, Tomoyuki Yamaguchi, Ruchirada Changkwanyeun, Chie Nakajima, Yasuhiko Suzuki (Div. Bioresources, CZC, Hokkaido Univ.)

P-260**Antimicrobial activity and mechanism of persulcatusin, antimicrobial peptide against drug resistant bacteria**

○Itsuki Morozumi¹, Takashi Sasaki², Keiichi Hiramatsu², Nobumichi Kobayashi³, Ken Kikuchi⁴, Emiko Isogai¹ (¹Dept. Animal. Microbiol., Sch. Agri., Tohoku Univ., ²Dept. Microbiol., Sch. Med., Juntendo Univ., ³Dept. Hygiene., Sch. Med., Sapporo Medical Univ., ⁴Dept. Infection., Sch. Med., Tokyo Women's Medical Univ.)

P-261**Investigation of the mechanisms for a new compound against antibiotic tolerance in *Pseudomonas aeruginosa***

○Takashi Amoh¹, Keiji Murakami¹, Reiko Kariyama^{2,3}, Katsuhiko Hirota¹, Yoichiro Miyake¹ (¹Dept. Oral Microbiol., Institute Biomed Sci., Tokushima Univ. Grad. Sch., ²Dept. Food and Nutr., Okayama Gakuin Univ., ³Dept. Urol., Grad. Sch. of Med. Dent. and Pharm., Okayama Univ.)

P-262**The developments of antibiotics for multidrug-resistant strain targeting to the Bam complex**

○Akari Senda¹, Honami Ashizawa¹, Takama Kamata¹, Hiroko Yoshida¹, Takahiro Tsuchiya¹, Katsushiro Miyamoto¹, Eisaku Yoshihara², Hiroshi Tsujibo¹ (¹Dept. Microbiol. Osaka Univ. Pharm. Sci., ²Dept. Appl. Biochem., Sch. Eng. Tokai Univ.)

P-263**Enzymatic characterization and analysis of Mycobacterial DNA gyrase**

○Hyun Kim¹, Yasuo Fukutomi³, Chie Nakajima², Masanori Matsuoka³, Shigetarou Mori¹, Keigo Shibayama¹, Yasuhiko Suzuki² (¹Dept. Bacteriol. II, NIID, ²CZC, Hokkaido Univ., ³Leprosy Research Center, NIID)

P-264**Antibacterial Effects of Glycyrrhetic Acid and Its Derivatives on *Staphylococcus aureus***

○Miki Kawada-Matsu¹, Kentaro Oyama^{1,2}, Tetsuya Hayashi³, Hitoshi Komatsuzawa¹ (¹Dept. Oral Microbiol., Grad. Med. and dent., Kagoshima Univ., ²Dept. Oral maxillofacial Surg., Grad. Med. and dent., Kagoshima Univ., ³Dept. Bacteriol., Grad. Med., Kyushu Univ.)

P-265**Nybomycin, a re-discovered “Reverse Antibiotic”, acts against quinolone-resistant *E. faecalis***

○Yuh Morimoto¹, Tadashi Baba¹, Mari Matsuda², Keiichi Hiramatsu¹ (¹Juntendo Univ. Grad. Sch. Center of Infection Control Science, ²Tokyo Univ. Grad. Sch. Agricultural Life Sci. Global Animal Resource Science)

P-266**Fatty Acid in the Cell Membrane Determine The Susceptibility of Enterococci against CAMPs (BMAP-28)**

○Moe Narita, Rintaro Tomioka, Emiko Isogai (Dept. Animal microbiology., Sch. Agl., Tohoku Univ.)

P-267**Determination of the antibacterial constituents produced by lactobacilli against a periodontal pathogen**

○Tomomi Kawai¹, Tomoko Ohshima¹, Ryoichi Shin², Satoshi Ikawa³, Atsushi Tani⁴, Naoya Inazumi⁵, Nobuko Maeda¹ (¹Dept. Oral Microbiol., Sch. Dental Med., Tsurumi Univ., ²Central Institute, Health Science, A.L.A. Corporation, ³Technology Research Institute, Osaka Prefecture, ⁴Dept. Human Environmental Science, Faculty of Human Development, Kobe Univ., ⁵Technical Support Division, Graduate Sch. Science, Osaka Univ.)

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Anti-biofilm activity of silver nanoparticles against human pathogenic bacteria

○Kaung Kyaw^{1,2}, Ayaka Harada¹, Haroaki Ichimaru¹, Takayuki Kawagoe¹, Kinnosuke Yapiro³, Katsuhiko Ono⁴, Hiroyasu Tsutsuki⁴, Tomohiro Sawa⁴, Shigeru Morimura¹, Takuro Niidome¹ (¹Fac. Adv. Sci. Tech., Kumamoto Univ., ²Dept. Chem. Eng., Yangon Technological Univ., ³Dept. Mol. Infect., Sch. Med., Chiba Univ., ⁴Dept. Microbiol., Sch. Med., Kumamoto Univ.)

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The 327th amino acid substitution of AcrB in *Haemophilus influenzae* confers to Azithromycin resistance

○Shoji Seyama, Takeaki Wajima, Hidemasa Nakaminami, Norihisa Noguchi (Dept. Microbiol., Sch. Pharm. Tokyo Univ. Pharm. Life Sci.)

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Macrolides resistance in *Propionibacterium acnes* is induced by the exposure of low concentration

○Keisuke Nakase, Yuhei Okamoto, Norihisa Noguchi (Dept. Microbiol., Sch. Pharm., Tokyo Univ. of Pharm. and Life Sci.)

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Tazobactam/Piperacillin resistance mechanism in *Escherichia coli* clinical isolates

○Yuuki Suzuki¹, Toyotaka Sato¹, Soh Yamamoto¹, Noriko Ogasawara¹, Tsukasa Shiraishi¹, Masaaki Shinagawa², Satoshi Takahashi^{2,3}, Shin-ichi Yokota¹ (¹Dept. Microbiol., Sapporo Med. Univ. Sch. Med., ²Div. Lab. Med., Sapporo Med. Univ. Hosp., ³Dept. Infection Control and Lab. Med., Sapporo Med. Univ. Sch. Med.)

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Analysis of the clinical enterococcal isolates with low-level VanB-type vancomycin resistance

○Yusuke Hashimoto¹, Takahiro Nomura¹, Jun Kurushima¹, Koichi Tanimoto², Haruyoshi Tomita^{1,2} (¹Dept. Bacteriol., Grad. Sch. Med., Gunma Univ., ²Lab. Bacteriol. Drug Resist., Grad. Sch. Med., Gunma Univ.)

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Perturbation of the Balance between Respiration and fermentation is triggered for persister formation

○Naoki Yamamoto¹, Rino Isshiki¹, Yuto Kawai¹, Daiki Tanaka², Tetsushi Sekiguchi², Shinya Matsumoto³, Satoshi Tsuneda¹ (¹Dept. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ., ²NLR., Waseda Univ., ³Dept. Microbiol., Sch. Med., Nagoya Univ.)

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Mechanism of incomplete cross-resistance among quinolone antimicrobial agents in *Acinetobacter baumannii*

○Junichi Yamagishi¹, Mai Ishikawa¹, Miwa Kanno¹, Seiji Yamasaki², Kunihiko Nishino², Mitsuo Kaku³ (¹Dept. Microbiol. Biochem., Nihon pharm. Univ., ²ISIR Osaka Univ., ³Dept. Infect. Cont., Int. Med., Tohoku Univ.)

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In vitro reduction of activity of tigecycline against MDR *Acinetobacter baumannii* with host stress hormone

○Masato Inaba^{1,2}, Naoyuki Matsuda², Hirotsugu Banno¹, Wanchun Jin¹, Jun-ichi Wachino¹, Kouji Kimura¹, Yoshichika Arakawa¹ (¹Dept. Bacteriol., Sch. Med., Nagoya Univ., ²Dept. Emergency & Critical Care Med., Sch. Med., Nagoya Univ.)

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Mechanism of daptomycin-resistance in methicillin-resistant *Staphylococcus aureus* after using daptomycin

○Hiro Tokoro¹, Shigekazu Iguchi¹, Atsushi Yoshida¹, Yutaka Uzawa¹, Motonao Ishikawa², Ken Kikuchi¹ (¹Dept. Infect. Dis., Tokyo Women's Medical University, ²Dept. Med. Tokyo Women's Medical University East Medical Center)

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Inoculum effect of β-lactams in Japanese MSSA strains

○Riko Takezawa^{1,2}, Shigekazu Iguchi¹, Atsushi Yoshida¹, Yutaka Uzawa³, Ken Kikuchi^{1,4} (¹Dept. Infectious Disease, Tokyo Women's Medical Univ., ²Dept. Medical Technology, Mitsui Memorial Hospital, ³Dept. Infection Control, Tokyo Women's Medical Univ., ⁴Sakakibara Memorial Hospital)

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Low-level linezolid resistant Enterococci from chicken meats

○Takahiro Nomura¹, Jun Kurushima¹, Koichi Tanimoto², Haruo Watanabe³, Haruyoshi Tomita^{1,2} (¹Dept. Bacteriol., Grad. sch. Med., Gunma Univ., ²Lab. Bacterial Drug Resistance, Grad. sch. Med., Gunma univ., ³Natl. Inst. Infec. Dis.)

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The role of chromosomal bla_{CTX-M} in long-term detection of *Escherichia coli* clinical isolates producing ESBL

○Kouta Hamamoto¹, Itaru Hirai^{1,2} (¹Lab. Microbiol., Sch. Health. Sci., Univ. The Ryukyus, ²AMED/JICA SATREPS)

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Colistine resistance gene mcr-1 in an ESBL-producing *E. coli* isolated from imported chicken meat

○Naoko Chiba¹, Koichi Tanimoto², Haruyoshi Tomita^{1,2} (¹Dept. Bacteriol., Gunma Univ. Grad. Sch. Med., ²Lab. Bacteriol. Drug Resistance, Gunma Univ. Grad. Sch. Med.)

P-281**Analysis of streptomycin-resistance associating genes in *Mycobacterium tuberculosis* in Nepal**

○Dipti Shrestha¹, Bhagwan Maharjan², Nan Aye Thida Oo¹, Chie Nakajima¹, Yasuhiro Suzuki¹ (¹Div. Biores., CZC, Hokkaido Univ., ²GENETUP, Nepal)

P-282**Carbapenem-resistant *Escherichia coli* isolates in Myanmar carry various *bla*_{NDM}-harboring plasmids**

○Yo Sugawara¹, Noriko Sakamoto¹, Dan Takeuchi¹, Hideharu Hagiya², Norihisa Yamamoto², Kazunori Tomono², Yukihiko Akeda^{1,2}, Kazuhisa Okada¹, Shigeyuki Hamada¹ (¹RCC-ERI, RIMD, Osaka Univ., ²Dept. Infect. Cont. Prevent. Med. Hosp. Osaka Univ.)

P-283**The exploration of cofactor in reducing susceptibility to ceftoraxon in mosaic PBP2 harboring gonococcus**

○Kotaro Aoki¹, Ken Shimuta², Makoto Ohnishi², Yoshikazu Ishii¹, Kazuhiro Tateda¹ (¹Dept. Microbiol. Infect. Dis., Sch. Med., Toho Univ., ²Bacteriol. I, NIID)

P-284**Analysis of ESBL and AmpC producing Enterobacteriaceae isolated from domestic and imported chicken meats**

○Yosuke Otake¹, Naoko Chiba¹, Jun Kurushima¹, Koichi Tanimoto², Haruo Watanabe³, Haruyoshi Tomita^{1,2} (¹Dept. Bacteriol., Grad. Sch. Med., Gunma Univ., ²Lab. Bacterial Drug Resistance, Grad. Sch. Med., Gunma Univ., ³Natl. Inst. Infec. Dis.)

P-285**Analysis of drug resistant gene variation of *Vibrio cholerae* clinical and environmental strains in Kolkata**

○Daichi Morita¹, Tamaki Mizuno², Daisuke Imamura¹, Asish K. Mukhopadhyay³, Shin-ichi Miyoshi², Sumio Shinoda¹, Keinosuke Okamoto¹ (¹Collab. Res. Ctr., Okayama Univ. in India, ²Grad. Med, Dent. Pharm. Sci., Okayama Univ., ³NICED)

P-286**A novel method for assessing *Mycobacterium tuberculosis* *gyrBA* mutations and fluoroquinolone resistance**

○Mitsunori Yoshida, Yoshihiko Hoshino, Noboru Nakata (Department of Mycobacteriology, Leprosy Research Center, National Institute of Infectious Diseases)

P-287**Association of *walk* and *murA* mutations with vancomycin susceptibility and biofilm in *Staphylococcus***

○Yusuke Sato¹, Mitsutaka Syoji², Shinya Watanabe¹, Longzhu Cui¹ (¹Dev. Bacteriology, Jichi medical Univ., ²Funabashi Municipal Medical Center)

P-288**Analysis of the bacitracin resistance in Enterococci isolated from chicken meat**

○Keisuke Sugioka¹, Takahiro Nomura¹, Jun Kurushima¹, Koichi Tanimoto², Haruyoshi Tomita¹ (¹Dept. Bacteriol., Grad. Sch. Med., Gunma Univ., ²Lab. Bacteriol. Drug Resist., Grad. Sch. Med., Gunma Univ.)

P-289**Characterization of carbapenem-resistant Enterobacteriaceae isolates from a Thai hospital**

○Noriko Sakamoto¹, Yukihiro Akeda^{1,2}, Dan Takeuchi¹, Yo Sugawara¹, Norihisa Yamamoto², Masato Suzuki³, Keigo Shibayama³, Kazunori Tomono², Shigeyuki Hamada¹ (¹Thailand-Japan Research Collaboration Center on Emerging and Re-emerging Infections, Reserch Ins. for Microbial Diseases, Osaka Univ., ²Div. of Infection Control and Prevention, Osaka Univ. Grad. School, ³Dept. of Bacteriology II, National Institute of Infectious Diseases)

P-290**Analysis of fluoroquinolone susceptibility and temperature sensitivity of the *Mycobacterium leprae* DNA gyrase**

○Noboru Nakata, Mitsunori Yoshida, Yoshihiko Hoshino (Dept. Mycobacteriol., LRC, NIID)

P-291**Emergence of SGI1-positive *Proteus mirabilis* clinical isolates in Egypt**

○Ahmed M. Soliman^{1,2}, Ashraf M. Ahmed³, Toshi Shimamoto¹, Ramadan A. El-Domany², Hirofumi Nariya¹, Tadashi Shimamoto¹ (¹Laboratory of Food Microbiology and Hygiene, Graduate School of Biosphere Science, Hiroshima University, ²Department of Microbiology and Immunology, Faculty of Pharmacy and Drug Industries, Kafrelsheikh University, ³Department of Bacteriology, Mycology and Immunology, Faculty of Veterinary Medicine, Kafrelsheikh University)

P-292**Molecular epidemiological typing of IncI1 plasmid contained in ESBL producing *Escherichia coli* from chicken**

○Shiori Yamamoto^{1,2}, Hiroshi Asakura¹, Yumiko Okada¹, Marie Yoshida¹, Shizunobu Igimi³ (¹Nat. Inst. Health Sci., ²Jpn. Soc. Food Hyg. Saf., ³Tokyo Univ. Agri.)

P-293**Novel Insertion in Penicillin-Binding Protein 3 of Carbapenem-Resistant *Haemophilus influenzae***

○Kazuki Kitaoka, Kouji Kimura, Hirotsugu Banno, Wanchun Jin, Jun-ichi Wachino, Yoshichika Arakawa (Dept. Bacteriol. Nagoya Univ. Grad. Sch. Med.)

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Characterization of colistin-resistant *E. coli* isolated from foods in Ho Chi Minh city, Vietnam

○Takahiro Yamaguchi^{1,2}, Ryuji Kawahara¹, Kazuo Harada^{2,4}, Phuc Do Nguyen³, Chinh Van Dang³, Yuko Kumeda¹, Yoshimasa Yamamoto^{1,4}, Kazumasa Hirata^{2,4} (¹Osaka Prefectural Institute of Public Health, ²Grad. Sch. Pharm. Sci., Osaka Univ., ³Institute of Public Health, Ho Chi Minh city, ⁴AMED/JICA, SATREPS)

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Effect of *Lonicera caerulea* var. *emphyllocalyx* extract against group A Streptococcus

○Masaaki Minami¹, Toshiaki Makino² (¹Dept. Bacteriol., Sch., Med., Nagoya City Univ., ²Dept. Pharmacogn., Scg. Phr., Nagoya City Univ.)

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Analysis of antibacterial mechanisms of fragrance ingredient and antibacterial agents

○Harue Nomura¹, Atsushi Yamada¹, Megumi Niizato¹, Yasunori Isshiki¹, Keisuke Sakuda², Katsuya Sakuma², Seiichi Kondo¹ (¹Dept. Microbiol., Sch. Pharm. Sci., Josai Univ., ²Ogawa & Co., Ltd.)

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Evaluating the effects of S-PRG biomaterial filler and gel on periodontal or general pathogens

○Muneaki Tamura^{1,2}, Noriaki Kamio^{1,2}, Kenichi Imai^{1,2} (¹Dept. Microbiol., Nihon Univ. Sch. Dent., ²Div. Immunol. Pathobiol., Dent. Res. Cent., Nihon Univ. Sch. Dent.)

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Novel antimicrobial activities of a peptide derived from a Japanese soy-bean fermented food, Natto

○Manabu Kitagawa^{1,2}, Tsukasa Shiraishi¹, Soh Yamamoto¹, Ryosuke Kutomi¹, Toyotaka Sato¹, Noriko Ogasawara¹, Atsushi Miyamoto², Shin-ichi Yokota¹ (¹Dept. Microbiol., Med., Sapporo Medical Univ., ²Div. Pharmacy, Sapporo Medical Univ. Hosp.)

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Novel strategies to potentiate anti-tubercular drug activities

○Yusuke Minato, Shannon Lynn Kordus, Joshua M. Thiede, Anthony D. Baughn (Dept. Microbiol. Immunol., Sch. Med., Univ. of Minnesota)

P-300

Investigation of UV-C (222 nm) irradiation in bactericidal activity and side effect on mouse skin

○Kouji Narita^{1,2}, Akio Nakane¹, Yukihiko Morimoto³, Tatsushi Igarashi⁴ (¹Dept. Microbiol. Immunol., Grad. Sch. Med., Hirosaki Univ., ²Inst. Animal Exp., Grad. Sch. Med., Hirosaki Univ., ³Corporate Headquarters, Ushio Inc., ⁴Fellow, Ushio Inc.)

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Prediction tool for drug-resistant genetic marker based on whole genome sequence of TB

○Akifumi Yamashita¹, Tomotada Iwamoto², Tsuyoshi Sekizuka¹, Yoshiro Murase³, Takemasa Takii³, Satoshi Miturai³, Seiya Kato³, Makoto Kuroda¹ (¹Pathogen Genomics Center, National Institute of Infectious Diseases, ²Kobe Institute of Health, ³Research Institute of Tuberculosis, JATA)

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Identification of a novel protein thiol modification by β -lactam antibiotics and its biological functions

○Katsuhiko Ono¹, Hiroyasu Tsutsuki¹, Tianli Zhang¹, Hiroshi Sezaki², Takaaki Akaike³, Tomohiro Sawa¹ (¹Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ²Life Sci. Appl. Markets Group, Agilent Technol., ³Dept. Envir. Health Sci. Mol. Toxicol., Grad. Sch. Med., Tohoku Univ.)

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Cholera outbreak caused by drug resistant *Vibrio cholerae* serogroup O1 biotype El-Tor serotype Ogawa in Kenya

○Mohammad Monir Shah, Martin Bundi, Cyrus Kathiiko, Gabriel Miringu, Sora Guyo, Yoshio Ichinose (Nagasaki University Institute of Tropical Medicine-Kenya Medical Research Institute Project, Nairobi, Kenya)

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IL-1 β production-inducing activity of *Candida albicans* toward dendritic cells and macrophages

○Akira Hasebe, Ayumi Saeki, Ken-ichiro Shibata (Dept. Oral Mol. Microbiol., Div. Oral Pathobiol. Sci., Hokkaido Univ. Grad. Sch. Dent. Med.)

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Toll-like receptor 10 in *Helicobacter pylori* infection

○Hiroyuki Nagashima^{1,2,3}, Shin-ichi Yokota¹, Yoshio Yamaoka² (¹Dept. Microbiol, Sapporo Med. Univ., ²Dept. Environmental and Preventive Med. Oita Univ. Med, ³Division of gastrointestinal medicine, Rumoi City hospital)

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Suppression of Toll-like receptor signaling by kinase-dead AKT1

○Kosuke Zenke, Masashi Muroi, Takaaki Ido, Ryuhei Tanobe, Yuta Ihashi, Ken-ichi Tanamoto (Musashino Univ.)

P-307 (WS8-1)

Bacteria are trapped in spontaneous neutrophil extracellular traps induced by serum-free culture condition

○Go Kamoshida, Takane Ueda, Satoshi Nishida, Shigeru Nagakawa, Tsuneyuki Ubagai, Yasuo Ono (Department of Microbiology and Immunology, Teikyo University School of Medicine)

P-308**Role of the C-terminal region of STAT1 on its binding to the GAS element**

○Masashi Muroi, Kosuke Zenke, Kohei Tsuchiya, Ken-ichi Tanamoto (Res. Inst. Pharm. Sci., Musashino Univ.)

P-309 (WS6-1)**Interferon- γ -mediated innate immunity against *Staphylococcus pseudintermedius* in canine DH82 cells**

○Akiko Segawa, Kohei Kumagai, Hiroyuki Tani, Takeshi Matsuzawa (Grad. Sch. Life Envriion. Sci., Osaka Pref. Univ.)

P-310 (WS8-2)***Fusobacterium nucleatum* induces the production of NETs-associated MIF by human neutrophils**

○Hiroyuki Tada (Dept. Oral Microbiol., Grad. Sch. Dent., Tohoku Univ.)

P-311**Relations between neutrophil left shift and *TREM1* gene expression under pathological condition of infection**

○Tsuneyuki Ubagai, Shigeru Nagakawa, Takane Ueda, Go Kamoshida, Satoshi Nishida, Yoshinori Sato, Yuka Unno, Yasuo Ono (Dept. Microbiol. Immune., Sch. Med., Teikyo Univ.)

P-312**Antimicrobial peptide LL-37 induces NET formation and improves the survival of mouse CLP model**

○Hiroshi Hosoda¹, Kaho Nakamura¹, Zhongshuang Hu¹, Yan Li¹, Hiroshi Tamura², Isao Nagaoka¹ (¹Dept. of Host Defense and Biochemical Research, Juntendo University, School of Medicine, ²Laboratory Program Support Consulting Office)

P-313**RegIII β lectin prolongs the gut colonization and enteropathy inflicted with *Salmonella Typhimurium***

○Tsuyoshi Miki, Nobuhiko Okada (Dept. Microbiol., Sch. Pharm., Kitasato Univ.)

P-314 (WS6-2)**IL-6-deficient immature myeloid cells have no protective function against *Streptococcus* infection**

○Takayuki Matsumura¹, Tadayoshi Ikebe², Makoto Ohnishi², Manabu Ato¹ (¹Dept. Immunol., Natl. Inst. Infect. Dis., ²Dept. Bacteriol. I, Natl. Inst. Infect. Dis.)

P-315 (WS8-3)***Escherichia coli*-derived outer membrane vesicles cause the proinflammatory signal mediated by exosomes**

○Mayuko Osada-Oka¹, Yui Kimura¹, Daisuke Yakura², Naoaki Shinzawa³, Yasuhiko Horiguchi³, Hiroshi Ichikawa², Yukiko Minamiyama¹ (¹Food Hyg. Env. Health, Life Env. Sci., Kyoto Pref. Univ., ²Doshisha University, ³Dept. Mol. Bacteriol., RIMD, Osaka Univ.)

P-316**Gender difference of histopathology and cytokine gene expression in hamsters in *Leptospira* infection**

○Rina Tomizawa^{1,2}, Nobuo Koizumi², Hiromu Sugiyama³, Ryoichi Sato¹, Makoto Ohnishi² (¹BASE, Tokyo Univ. Agri. Tech., ²Dept. Bacteriol. I, NIID, ³Dept. Parasitol., NIID)

P-317 (WS8-4)**One of mycoplasmal active entities that induce IL-1 β production by macrophages is lipopeptide/lipoprotein**

○Ayumi Saeki¹, Akira Hasebe¹, Toshihiko Suzuki², Ken-ichi Shibata¹ (¹Div. Oral Mol Microbiol., Dept Oral Pathobiol. Sci., Hokkaido Univ. Grad. Sch. Dent. Med., ²Dept. Bacterial Infection and Host Response., Grad Sch. Med. Dent. Sci., Tokyo Medical and Dental Univ.)

P-318**Effects of type 2 diabetes drug, metformin, on *Legionella* infection**

○Chiaki Kajiwara¹, Heiichiro Udon², Yoshikazu Ishii¹, Kazuhiro Tateda¹ (¹Dept. Microbiol. Infect. Dis., Sch. Med., Toho Univ., ²Dept. Immunol., Grad. Sch. of Med. Dent. and Pharm. Sci., Okayama Univ.)

P-319 (WS6-3)**Analysis of PRDX1 which contributes to host defenses against *Mycobacterium tuberculosis***

○Kazunori Matsumura¹, Hiroki Iwai¹, Masako Miyazawa Kato¹, Fumiko Kirikae¹, Jizi Zhao¹, Toru Yanagawa², Tetsuro Ishii², Keiji Funatogawa³, Tohru Miyoshi Akiyama¹, Teruo Kirikae¹ (¹Dept. of Infectious Diseases, National Center for Global Medicine, ²Facu. of Medicine, University of Tsukuba, ³Dept. of Microbiology, Tochigi Prefectural Institute of Public Health and Environmental Science)

P-320**The role of DHA on inflammasome activity induced by *A. actinomycetemcomitans* invasion in macrophages**

○Toshinori Okinaga, Wataru Ariyoshi, Tatsuji Nishihara (Kyushu Dental University)

P-321 (WS6-4)**Bcl-xL regulates Group A *Streptococcus* internalization to host cell and autophagosome-lysosome fusion**

○Shintaro Nakajima, Chihiro Aikawa, Takashi Nozawa, Atsuko Nozawa, Hirotaka Toh, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

P-322 (WS8-5)**Potentiation of antibacterial activity of macrophages by persulfide donor treatment**

○Tianli Zhang¹, Hiroyasu Tsutsuki¹, Katsuhiko Ono¹, Takaaki Akaike², Tomohiro Sawa¹ (¹Dept. Microbiol., Sch. Med., Kumamoto Univ., ²Dept. Environ Health Sci and Mol Toxicol., Sch. Med., Tohoku Univ.)

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NLRP3 inflammasome regulation by reactive cysteine persulfides

○Shahinur Akter¹, Tianli Zhang¹, Hiroyasu Tsutsuki¹, Katsuhiko Ono¹, Takaaki Akaike², Tomohiro Sawa¹ (¹Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., ²Dept. Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med.)

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Involvement of Mas-related genes X2 in the internalization of LL-37 into mast cells

○Taisuke Murakami, Kaori Suzuki, Isao Nagaoka (Dept. Host Defense & Biochem. Res., Sch. Med., Juntendo Univ.)

P-325

Modification of lipid A structure and activity by foreign fatty acid transferase genes

○Kazuyoshi Kawahara, Meri Kanaoka, Nanami Naraya, Takehiro Sugawara, Sakura Onoue (Dept. Biosciences, Coll. Sci. Eng., Kanto Gakuin Univ.)

P-326 (WS8-6)

Immunostimulatory effects of outer membrane vesicles from acetic acid bacteria

○Masahito Hashimoto, Taichi Matsumoto, Risako Baba, Mami Ozono, Shuhei Hashiguchi (Sci. & Eng. Area, Kagoshima Univ.)

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Spatial regulation of autophagy receptor NDP52 by Rab35 GTPase

○Atsuko Nozawa, Takashi Nozawa, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

P-328

Compound screen targeting M1/M2 balance of human macrophages

○Yoshihiro Komohara, Yukio Fujiwara, Chang Pan, Koji Ohnishi, Motohiro Takeya, Hasita Horlad (Department of Cell Pathology, Kumamoto University)

P-329

Oxidative inactivation of GAPDH in *Salmonella* and its implication in antibacterial host defense

○Minkyung Jung¹, Katsuhiko Ono², Tomoaki Ida¹, Shigemoto Fujii¹, Hideshi Ihara³, Takashi Miura⁴, Tomohiro Sawa², Shigetada Kawabata⁵, Yoshito Kumagai⁴, Takaaki Akaike¹ (¹Dept. of Environ. Health Sci. Mol. Toxicol., Tohoku Univ., Grad. Sch. of Med., ²Dept. of Microbiol., Grad. Sch. of Med. Sci., Kumamoto Univ., ³Dept. Biol. Sci., Grad. Sch. of Sci., Osaka Pref. Univ., ⁴Environ. Biol. Lab., Faculty of Med., Univ. of Tsukuba, ⁵Dept. of Oral and Mol. Microbiol., Grad. Sch. of Dent., Osaka Univ.)

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8-Nitro-cGMP mediated antibacterial host defense and its regulation by hydrogen sulfide

○Shingo Kasamatsu¹, Shigemoto Fujii¹, Tetsuro Matsunaga¹, Khan Shahzada², Tomoaki Ida¹, Katsuhiko Ono³, Tomohiro Sawa³, Takaaki Akaike¹ (¹Dept. of Environ. Health Sci. Mol. Toxicol., Tohoku Univ. Grad Sch of Med., ²Gladstone Inst., UCSF., ³Dept. of Microbiol., Grad Sch of Med. Sci., Kumamoto Univ.)

P-331 (WS3-1)

Dendritic cell-based vaccine induces the novel lung-resident memory Th17 and protects against cryptococcosis

○Keigo Ueno¹, Makoto Urai¹, Shogo Takatsuka¹, Masahiro Abe¹, Yoshiko Otani^{1,2}, Kiminori Shimizu², Yoshitsugu Miyazaki¹, Yuki Kinjo¹ (¹Dept. Chemother. Myco., NIID, ²Dept. Biolog. Sci. Fac. Indust. Sci. Techol. Tokyo Univ. of Sci.)

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Gene expression analysis of *Chlamydia trachomatis*-infected cells in hypoxia

○Kohei Sakai¹, Junji Matsuo¹, Kazuya Yamakawa¹, Torahiko Okubo¹, Shinji Nakamura², Hiroyuki Yamaguchi¹ (¹Fac. Health Sci., Hokkaido Univ., ²Div. Biomed. Imag. Res., Juntendo Univ. Grad. Sch. Med.)

P-333

Lactic acid bacteria prevent both periodontitis and atherosclerosis

○Ryoki Kobayashi, Tomomi Hashizume, Masanori Saito, Osamu Tsuzukibashi, Noriko Kuwahara, Tomoko Ochiai (Department of Microbiology and Immunology, Nihon University, School of Dentistry at Matsudo)

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Nrf2 regulates *Staphylococcus aureus* infection through NLRP3 inflammasome activation

Ryuichi Nagashima^{1,2}, Hitomi Kosa^{1,2}, Katsuhiko Kojima³, Toshikazu Takeshita³, Hozumi Motohashi⁴, Masayuki Yamamoto⁵, ○Nobuyuki Tanaka^{1,2} (¹Cancer Biology and Therapeutics, Miyagi Cancer Center Research Institute, ²Cancer Immunobiology, Tohoku University Graduate School of Medicine, ³Immunology and Microbiology, Shinshu University School of Medicine, ⁴Department of Gene Expression Regulation, Institute of Development, Aging and Cancer, Tohoku University, ⁵Department of Medical Biochemistry, Tohoku University Graduate School of Medicine)

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Modulation of the epithelial inflammatory response by gut commensal bacteria-derived metabolites

○Toshifumi Osaka^{1,2}, Mizuha Kamata², Ryo Matsuura², Junji Yagi¹, Satoshi Tsuneda² (¹Dept. Microbiol. Immunol., Tokyo Women's Med. Univ., ²Dept. Life Sci. Med. Biosci., Waseda Univ.)

P-336**Hydrogen peroxide from *Streptococcus oralis* regulates inflammatory gene expressions in macrophage**

○Hitomi Matsushima¹, Hideo Kataoka², Nobuo Okahashi³, Yutarou Kumagai⁴, Mitsuko Inoue¹, Hirotaka Kuwata² (¹Dept. Pediatric Den., Sch. Den., Showa Univ., ²Dept. Oral. Microbiol. Immunol., Sch. Den., Showa Univ., ³Center Oral Science., Dept. Den., Osaka Univ., ⁴Quantitative Unit. IFREC. Osaka Univ.)

P-337 (WS3-2)**Development of pneumococcal universal vaccine targeting PspA**

○Ryutaro Ogura¹, Zhenyu Piao¹, Takaaki Nishikawa¹, Yuji Inoue¹, Hiroki Nakayama¹, Yukihiko Akeda², Yuki Kinjo³, Kazunori Oishi⁴, Kazuyoshi Ikuta¹, Hiroshi Miyatake¹ (¹The Research Foundation for Microbial Diseases of Osaka University, ²Osaka University Graduate School of Medicine, ³Department of Chemotherapy and Mycoses, National Institute of Infectious Diseases, ⁴Infectious Disease Surveillance Center, National Institute of Infectious Diseases)

P-338**Development of the new recombinant BCG utilizing MMPII antigen and PEST sequence**

○Yumiko Tsukamoto¹, Yumi Maeda¹, Toshiki Tamura¹, Tetsu Mukai¹, Satoshi Mitarai², Saburo Yamamoto³, Masahiko Makino¹ (¹Dept. Mycobacteriology, Leprosy Research Center, Natl. Inst. Infect. Dis., ²Dept. Mycobac. Ref. Res. Inst. Tuberculosis, Japan Anti-Tuberculosis Association, ³Japan BCG Laboratory)

P-339 (WS3-3)***In vivo* RNA-seq reveals novel antigens against *Bordetella pertussis* infection**

○Koichi Suzuki^{1,2}, Naoaki Shinzawa¹, Daisuke Motooka³, Shota Nakamura³, Keisuke Ishigaki¹, Kazuyoshi Ikuta², Koichi Yamanishi², Yasuhiko Horiguchi¹ (¹Dept. Mol. Bacteriol., RIMD, Osaka Univ., ²Res. Found. for Micro. Dise. of Osaka Univ., ³Dept. infect. Metageom., RIMD, Osaka Univ.)

P-340 (WS6-5)***S. aureus*-specific IgG antibodies inhibit the bacterial growth in a Sortase A independent manner**

○Mutsumi Furukawa^{1,3}, Hiroshi Yoneyama^{2,3}, Eiji Hata⁴, Tasuke Ando², Tomohito Hayashi⁴, Yoshio Kiku⁴, Yuuya Nagasawa⁴, Kouichi Watanabe^{1,3}, Hisashi Aso^{1,3}, Tomonori Nochi^{1,3} (¹Laboratory of Functional Morphology, Graduate School of Agricultural Science, Tohoku University, ²Laboratory of Animal Bacteriology, Graduate School of Agricultural Science, Tohoku University, ³International Research and Education Center for Food and Agricultural Immunology, Graduate School of Agricultural Science, Tohoku University, ⁴National Institute of Animal Health, National Agriculture and Food Research Organization)

P-341 (WS3-4)**Broad range immunization with an attenuated *Shigella* mutant increasing virulence genes expression**

○Jiro Mitobe¹, Ken Shimuta¹, Nobuo Koizumi¹, Ritam Sinha², Soma Mitra², Dhrubajyoti Nag², Hemanta Koley² (¹Dept. Bacteriol. 1, NIID, ²NICED, India)

P-342**Mucosal adjuvanticity of *Aggregatibacter actinomycetemcomitans* outer membrane vesicles**

○Satoru Hirayama, Hidenobu Senpuku, Makoto Ohnishi, Ryoma Nakao (Dept. Bac. I, Natl. Inst. Infect. Dis.)

P-343**Protection of mice by *Salmonella* proteins secreted at low pH**

○Marta Elsheimer Matulova, Yohsuke Ogawa, Yoshihiro Shimoji, Masahiro Eguchi (National Institute of Animal Health, NARO)

P-344 (WS3-5)**Optimization of tuberculosis booster vaccine composed of the recombinant MDP1 and the DNA adjuvant, G9.1**

○Jun-ichi Maeyama¹, Toshio Yamazaki¹, Daisuke Hayashi^{1,2}, Toshiko Yamamoto^{1,2}, Yuriko Ozeki³, Fumiko Suzuki⁴, Takehiro Yamaguchi³, Sohkichi Matsumoto³, Sumiko Iho⁴, Saburo Yamamoto^{1,2} (¹Natl. Inst. Infect. Dis., ²Japan BCG Laboratory, ³Sch. Med., Niigata Univ., ⁴Facul. Med. Sci., Univ. Fukui)

P-345 (WS3-6)**The effect of anaerobic cultures of *Helicobacter pylori* on immune system and prophylactic vaccine**

○Sayaka Hirukawa, Hitomi Mimuro (Dev. Bacteriol., IMSUT)

P-346**Topically applied josamycin suppresses development of atopic dermatitis-like skin lesions in NC/Nga mice**

○Katsuhiko Matsui, Reiko Ikeda (Dept. Microbial Sci. Host Defense, Meiji Pharm. Univ.)

P-347**Human antimicrobial peptide LL-37 induces autophagy in endothelial cells**

○Kaori Suzuki¹, Hiroshi Tamura^{1,2}, Isao Nagaoka¹ (¹Dept. Host Defense and Biochem. Res., Sch. Med., Juntendo Univ., ²LPS (Laboratory Program Support) Consulting Office)

P-348 (WS6-6)**Functional diversity of IL-17A producing cells in the mycobacterial infected lungs**

○Masayuki Umemura^{1,2}, Kanako Gima³, Masayuki Fukui⁴, Naoko Teruya¹, Giichi Takaesu^{1,2}, Goro Matsuzaki^{1,2} (¹Mol. Microbiol. Gr., Dept. Infect. Dis., Trop. Biosphere Res. Cent., Univ. Ryukyus, ²Host Defense, Grad. Sch. Med., Univ. Ryukyus, ³Sch. Med., Niigata Univ., ⁴Dept. Pharma. Sci., Aomori Univ.)

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In vitro effects of *Mycoplasma pneumoniae* antigen sensitization on Th2 immune responses

○ Satoshi Kurata¹, Takako Osaki¹, Hideo Yonezawa¹, Tomoko Hanawa¹, Haruhiko Taguchi², Shigeru Kamiya¹ (¹Dept. Infect. Dis., Kyorin Univ., Sch. Med., ²Dept. Immunol., Faculty of Health Sci., Kyorin Univ.)

P-350

Development of a bovine enzyme linked immunosorbent assay for the sero-surveillance of anthrax

○ Manyando Simbotwe, Daisuke Fujikura, Hideaki Higashi (Div. Infec. Immunity, Res. Ctr. Zoonosis Contr, Hokkaido Univ.)

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Effects of Muse cells on acute encephalopathy caused by Shiga toxin-producing *E. coli* infection in mice

○ Ryo Ozuru¹, Shohei Wakao², Takashi Matsuba¹, Junko Isobe³, Keiko Kimata³, Masanori Watahiki³, Mari Dezawa², Jun Fujii¹ (¹Div. Bacteriol. Dept. Microbiol. Immun. Tottori Univ., ²Dept. Stem Cell. Biology. Histology., Tohoku Univ., ³Toyama Institute of Health)

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Crucial role for CD69 in the pathogenesis of dextran sulphate sodium-induced colitis

○ Akihiro Hasegawa¹, Hidetaka Ogino¹, Toshinori Nakayama², Mutsunori Shirai¹ (¹Dept. Microbiol. Immunol., Yamaguchi Univ. Grad. Sch. Med., ²Dept. Immunol., Grad. Sch. Med., Chiba Univ.)

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Impact of the timing of morphine administration on LPS-mediated lethal endotoxic shock in mice

○ Hidehito Kato¹, Tomoko Fukada², Makoto Ozaki², Ken'ichi Imanishi³, Junji Yagi¹ (¹Depart. Microbiol. Immunol., Sch. Med., Tokyo Women's Med. Univ., ²Depart. Anesthesiol., Sch. Med., Tokyo Women's Med. Univ., ³Depart. Health Sciences, Japan University of Health Sciences)

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LPS promotes MIP-2 production in cocultures of adipocytes and macrophages

○ Yuka Unno, Yoshinori Sato, Shigeru Nagakawa, Go Kamoshida, Satoshi Nishida, Takane Ueda, Tsuneyuki Ubagai, Yasuo Ono (Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ.)

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The first fatal case of *Corynebacterium ulcerans* infection in Japan

○ Ken Otsuji^{1,2}, Kazumasa Fukuda¹, Yasuhiko Nikaido¹, Masahiro Matsumoto¹, Midori Ogawa¹, Toshiyuki Umata³, Mitsumasa Saito¹ (¹Dept. Microbiol., Sch. Med., U.O.E.H, ²Dept. Critical Care Medicine, Hospital of the U.O.E.H, ³Dept. RI Research Center, Sch. Med., U.O.E.H)

P-356

Analysis of biofilm formation and toxin production of daptomycin-nonsusceptible MRSA

○ Masakaze Hamada, Tetsuo Yamaguchi, Kotaro Aoki, Yoshikazu Ishii, Kazuhiro Tateda (Dept. Microbiol. Infect. Dis., Sch. Med., Toho Univ.)

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Isolation of leptospira from soil of daily farms in Tokachi, Hokkaido

○ Tamaki Kanda¹, Hiroaki Moriya², Ryo Murata¹, Naoya Kikuchi¹ (¹Dept. pathobiol., Sch. Vet. Med., Rakuno Gakuen Univ., ²Tokachi-NOSAI)

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A quantitative study on enterohemorrhagic *Escherichia coli* in retail beef in Padang, West Sumatra, Indonesia

○ Ahmad Yaman Kayali¹, Takeki Kai², Mitsuaki Nishibuchi¹ (¹Ctr. Southeast Asian Studies, Kyoto Univ., ²Grad. Sch. Asian African Area Studies, Kyoto Univ.)

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Isolation method of *P. gingivalis* and *T. forsythia* which are known as red complex bacteria

○ Osamu Tsuzukibashi¹, Satoshi Uchibori², Masanori Saito¹, Noriko Kuwahara¹, Tomoko Ochiai¹ (¹Dept. Microbiol. Immunol., Sch. at Matsudo, Nihon Univ., ²Dept. Crown Bridge Prostodont., Sch. at Matsudo, Nihon Univ.)

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Characterization of enteroaggregative *E. coli* strains isolated from child patients with acute gastroenteritis

○ Chizuko Kimura¹, Keiko Semba², Sachio Sonobe², Toshiya Kimura², ○ Hiroto Shinomiya² (¹Ehime Chuyo Public Health Center, ²Ehime Prefectural Institute of Public Health and Environmental Science)

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Quantitative alteration of *Streptococcus suis* and *Streptococcus parasuis* along with swine growth

○ Sakura Arai¹, Hyunjung Kim¹, Mari Tohya¹, Takayasu Watanabe¹, Eriko Suzuki¹, Fumito Maruyama², Ichiro Nakagawa², Tsutomu Sekizaki¹ (¹Res. Center for Food Safety, Grad. Sch. Agr. Life Sci., Univ. Tokyo, ²Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

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Significance of the histone-like protein with the native structure for diagnosis of asymptomatic tuberculosis

○ Yukiko Nishida^{1,3}, Yuriko Ozeki¹, Yoshitaka Tateishi¹, Akihito Nishiyama¹, Saburo Yamamoto², Ichiro Nakagawa³, Sohichi Matsumoto¹ (¹Dept. bacteriology. Med., Niigata Univ., ²Japan BCG Laboratory, ³Dept. Microbiol. Med., Kyoto Univ.)

P-363**Development of a screening system for highly pathogenic strains of *Streptococcus intermedius***

- Masaki Matoba¹, Toshifumi Tomoyasu², Atsushi Tabata², Hideaki Nagamune², Ayuko Takao³ (¹Dept. Biol. Sci. & Tech., Inst. Tech. & Sci., Tokushima Univ. Grad. Sch., ²Field Biomol. Func. & Tech., Dept. Biosci. & Bioindust., Tokushima Univ. Grad. Sch., ³Dept. Oral Microbiol., Sch. Dent. Med., Tsurumi Univ.)

P-364**Detection of *Edwardsiella tarda* in the bile of patients with hepatobiliary disease**

- Chigusa Suezawa¹, Satoshi Yamane¹, Shouya Nagata¹, Fumi Inada², Makiko Okujyo², Sachio Ibaragi², Takako Takehi², Kunihiko Izuishi³, Atsuko Shiota⁴, Jun Okuda¹ (¹Div. Microbiol., Dept. Med. Tech., Kagawa Pref. Univ. of Health Sci., ²Dept. Clin. Res., Takamatsu Hosp., ³Dept. Gastroenterological Surgery, Takamatsu Hosp., ⁴Dept. Nursing, Kagawa Pref. Univ. of Health Sci.)

P-365**Effect of drug vehicles on microorganism rapid detection by MALDI-TOF MS analysis**

- Yoshihito Fujinami (National Research Inst. of Police Sci.)

P-366**A portable system for rapid resolution of bacterial composition using nanopore-based DNA sequencer**

- Satomi Mitsuhashi, Kirill Kryukov, Miho Sera, Kentaro Mamiya, Takuya Habara, So Nakagawa, Tadashi Imanishi (Biomedical Informatics Laboratory, Department of Molecular Life Science, Tokai University School of Medicine)

P-367**P44-specific peptide antigens for serodiagnosis of human granulocytic anaplasmosis**

- Hongru Su, Keisuke Ito, Yasuaki Kawarasaki, Masahiko Shimada, Norio Ohashi (Grad. Sch. Integrated Pharm. Nutr. Sci., Univ. Shizuoka)

P-368**Establishment of *Bartonella henselae* VirB5 IgG ELISA and its clinical usefulness**

- Masashi Yanagihara, Ken-ichiro Otsuyama, Hidehiro Tsuneoka (Dept. Lab. Sci., Fac. Health Sci., Grad. Sch. Med., Yamaguchi Univ.)

P-369**Antigen purification of *Bartonella henselae* antibody measurement by enzyme-linked immunosorbent assay**

- Kaori Kondo, Ken-ichiro Otsuyama, Masashi Yanagihara, Hidehiro Tsuneoka (Dept. Lab. Sci., Fac. Health Sci., Grad. Sch. Med., Yamaguchi Univ.)

P-370**Serotype specific identification of *Haemophilus influenzae* using the LAMP method**

- Mitsuko Seki¹, Chika Takano¹, Dong Wook Kim², Paul Evan Kilgore³, Satoshi Hayakawa¹ (¹Dept. Pathol. Microbiol., Sch. Med., Nihon Univ., ²Dept. Pharma., Coll. Pharma., Hanyang Univ., ³Dept. Pharma., Coll. Pharma. Heal., Wayne State Univ.)

P-371**Whole genome sequence typing in national surveillance of enterohemorrhagic *Escherichia coli* O111**

- Ken-ichi Lee¹, Keiko Kimata², Masanori Watahiki², Tsuyoshi Sekizuka³, Tomoko Ishihara¹, Sunao Iyoda¹, Makoto Kuroda³, Makoto Ohnishi¹, EHEC Working Group⁴ (¹Dept. Bacteriol. 1, Natl. Inst. Infect. Dis., ²Dept. Bac., Toyama Inst. Health, ³Pathogen Genomics Center, Natl. Inst. Infect. Dis., ⁴Local Inst. Publ. Health)

P-372**Genotypes and virulence factors in *Staphylococcus aureus* and *S. argenteus* from food handlers in Myanmar**

- Meijisoe Aung¹, Thida San², Mitsuyo Kawaguchiya¹, Noriko Urushibara¹, Nobumichi Kobayashi¹ (¹Dept. Hygiene, Sapporo Med. Univ., ²Ministry of Health and Sport, Myanmar)

P-373**Association between a pMAH135 plasmid and the progression of pulmonary disease caused by *Mycobacterium avium***

- Kei-ichi Uchiya¹, Shoki Asahi¹, Taku Nakagawa², Kenji Ogawa², Toshiaki Nikai¹ (¹Dept. Microbiol., Fac. Pharm., Meijo Univ., ²Dept. Respiratory Med., NHO Higashinagoya Hospital)

P-374**Epidemiological study on *Staphylococcus aureus* in laboratory mice and rats using genotyping methods**

- Seigo Fushuku, Kouki Kato (Ctr. Lab. Anim. Sci., Natl. Def. Med. Coll.)

P-375**Japanese Surveillance Systems Fight against AMR: JANIS, JACS and RICSS Shape the Future**

- Shuhei Fujimoto¹, Nobuo Murakami², Yuichi Muraki³, Tetsuya Yagi⁴, Keigo Shibayama⁵, Yoshichika Arakawa⁴ (¹Tokai Univ. Sch. Med., ²Gifu Univ. Hosp., ³Mie Univ. Hosp., ⁴Nagoya Univ. Grad. Sch. Med., ⁵Natl Inst. Infect. Dis.)

P-376**Comparative genomics of *Vibrio cholerae* O1 isolates from Bengal region**

- Masatomo Morita¹, Eiji Arakawa¹, Hidemasa Izumiya¹, Munirul Alam², Daisuke Imamura³, Sumio Shinoda³, Makoto Ohnishi¹ (¹Dept. Bacteriol. I, Natl. Inst. Infect. Dis., ²icddr,b, ³Collab. Res. Ctr. Okayama Univ. Infect. Dis. India, Okayama Univ.)

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Molecular epidemiological analysis for *pvl*-positive CA-MRSA isolated in dermatological clinic in Japan

○Shunsuke Takadama, Hidemasa Nakaminami, Takeaki Wajima, Norihisa Noguchi (Dept. Microbiol. Tokyo Univ. Parm. Life. Sch.)

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Genetic analysis of nontuberculous mycobacteria isolates from livestock and environment in the Tokai region

○Kotaro Sawai¹, Syota Suganuma¹, Kayoko Matsuo¹, Keiko Ootsu², Keiko Nozaki², Takayuki Wada³, Fumito Maruyama⁴, Yukiko Nishiuchi⁵, Hideto Fukushima¹, Tomotada Iwamoto⁶, Kenji Ohya¹ (¹Dept. Applied Biological Sciences, Gifu Univ., ²Gifu Livestock Hygiene Service Center, ³Institute of Tropical Medicine, Nagasaki Univ., ⁴Microbiol. Grad. Sch. Med., Kyoto Univ., ⁵Toneyama Inst. Tuberculosis Res. Osaka City Univ. Med. Sch., ⁶Dept. Microbiology, Kobe Inst. Health)

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Pulsed-field gel electrophoresis analysis of *Listeria monocytogenes* isolates from foods and patients in Japan

○Yumiko Okada¹, Yukako Shimojima², Marie Yoshida¹, Miki Ida², Yoshika Momose¹, Akihiko Hirai², Hidemasa Izumiya³ (¹Biomedical Food Res., Nat. Inst. Health Sci., ²Dept. Bacteriol., Tokyo Met. Inst. Pub. Health, ³Dept. Bacteriol. I., Nat. Inst. Infect. Dis.)

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Increased toxin production in MRSA isolates carrying *psm-mec* mutation in Thailand

○Fumiaki Tabuchi¹, Aroonlug Lulitanond², Viraphong Lulitanond³, Chikara Kaito¹ (¹Lab. of Immunol. and Microbiol., Grad. Sch. of Pharm., Univ. of Tokyo, ²Faculty of Associated Med. Sci., CentKhon Kaen Univ., Thailand, ³Faculty of Med., CentKhon Kaen Univ., Thailand)

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Community based cohort study on diarrheal diseases in an agricultural village in northern Vietnam

○Tetsu Yamashiro¹, Hanako Iwashita², Huong Thi Thu Vu³, Asako Tokizawa², Minh Binh Nguyen³, Trang Van Nguyen³, Thiem Dinh Vu³, Taichiro Takemura², Son Anh Dao⁴, Luu Duc Do⁴ (¹Dept. Bacteriol., Grad-Sch. Med. Univ. of Rykyus, ²Inst. Trop. Med., Nagasaki Univ., ³NIHE, ⁴ND Prev. Med. Center)

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The situation and influence factors of the pharyngeal carriage of *Staphylococcus aureus*

○Miyo Murai¹, Rumi Tano², Junko Amemura-Maekawa³ (¹Dept. Laboratory Sci. Saitama Pref. Univ., ²Dept. Oral Health Sci. Saitama Pref. Univ., ³Dept. Bacteriol. I, Nat. Inst. Infect. Dis.)

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Surveillance of *Campylobacter ureolyticus* in diarrheal and healthy children in Japan

○Akinori Shimizu¹, Nortoshi Hatanaka², Akira Nagita³, Masahiro Asakura², Sharda Prasad Awasthi², Atsushi Hineno^{1,2}, Shinji Yamasaki^{1,2} (¹Sch. Life Env. Sci., Osaka Pref. Univ., ²Grad. Sch. Life Env. Sci., Osaka Pref. Univ., ³Mizushima Central Hospital)

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Frequent use of colistin drug treatment, and prevalence of colistin resistant bacteria in chicken in Vietnam

○Tatsuya Nakayama¹, Michio Jinnai², Ryuji Kawahara², Yuko Kumeda², Yoshinori Sumimura¹, Yoshimasa Yamamoto^{1,2} (¹Sch. Pharma., Osaka Univ., ²Dept. Bacteriol., Osaka I.P.H.)

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Comparative genome analysis to clarify the virulence factors of *Streptococcus gallolyticus*

○Ryohei Nomoto¹, Fumito Maruyama², Msatoshi Okura³, Daisuke Takamatsu³, Ro Osawa⁴ (¹Dept. Infect. Dis., Kobe Inst. Heal., ²Dept. Microbiol., Kyoto Univ. Grad. Sch. Med., ³Bact./Parasit. Dis. Res. Division, NIAH, ⁴Dept. Bioresour. Sci., Grad. Sch. Agric. Sci., Kobe Univ.)

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Molecular epidemiology of multidrug-resistant *Pseudomonas aeruginosa* in a medical setting in Vietnam

○Tatsuya Tada¹, Tohru Miyoshi Akiyama², Norio Ohmagari³, Teruo Kirikae¹ (¹Department of Infectious Diseases, Research Institute, National Center for Global Health and Medicine, ²Pathogenic Microbe Laboratory, Research Institute, National Center for Global Health and Medicine, ³Disease Control and Prevention Center, National Center for Global Health and Medicine)

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Molecular diversity of *Mycobacterium tuberculosis* in Kandy, Sri Lanka: Insight to Beijing genotype

○Balapuwaduge Charitha Gayathri Mendis^{1,2}, Champa Ratnatunga³, Vasantha Thevanesam³, Athula Kumara³, Susiji Wickramasinghe⁴, Dushantha Madagedara⁵, Chandika Gamage³, Chie Nakajima¹, Yasuhiko Suzuki¹ (¹Div. Biores., CZC, Hokkaido Univ., ²Dept. Medical Laboratory Science, Faculty of Allied Health Sciences, Univ. Peradeniya, Sri Lanka, ³Dept. Microbiol, Faculty of Medicine., Univ. Peradeniya, Sri Lanka, ⁴Dept. Parasitol, Faculty of Medicine, Univ. Peradeniya, Sri Lanka, ⁵Respiratory Disease Treatment Unit, Teaching Hospital, Kandy, Sri Lanka)

P-388**Effect of food additives on the growth of the periodontal pathogen**

Mai Shinohara¹, Chiharu Kitada², Miki Maetani², Ayaka Yazawa¹, ○Shigeki Kamitani¹ (¹Graduate School of Comprehensive Rehabilitation, Osaka Prefecture Univ., ²School of Comprehensive Rehabilitation, Osaka Prefecture Univ.)

P-389**Virus-induced enhancement of adherence of *Helicobacter pylori* to host cells**

○Hong Wu¹, Takashi Nakano¹, Youichi Suzuki¹, Yukimasa Ooi², Kouichi Sano¹ (¹Dept. Microbiol. Infect. Control, Osaka Med. Coll., ²Infect. Control Off. Osaka Med. Coll. Hosp)

P-390**The relationship between growth condition and the expression of catalase gene in the yeast, *Candida albicans***

○Yoshiyuki Nakagawa¹, Masahiko Ogasawara², Jun-ya Ohta² (¹Div. Omics Analysys, Nagoya Univ. Grad. Sch. Med., ²Sch. Med. Nagoya Univ.)

P-391**Arthroconidia contribute to biofilm formation by the pathogenic fungus *Trichosporon asahii***

○Sanae Kurakado, Ryota Chiba, Chisato Sato, Takashi Sugita (Dept. Microbiol., Meiji Pharm. Univ.)

P-392**Characterization of fungi isolated from the KIBO, International Space Station**

○Kazuo Satoh¹, Takashi Yamazaki^{1,2}, Koichi Makimura¹ (¹Gene. Med. Educ. Res. Cen., Teikyo Univ., ²JAXA)

P-393**Protective effects of oligomers of GlcNAc against mycelial growth of *Candida albicans* in vitro and in vivo**

○Sanae A. Ishijima¹, Tamo Fukamizo², Kimihiko Satoh³, Takako Noguchi³, Yu Guo¹, Tsuyoshi Yamada¹, Shigeru Abe¹ (¹Teikyo University, Institute of Medical Mycology, ²Kindai University, Faculty of Agriculture, Department of Advanced Bioscience, ³Koyo Chemical Co., LTD.)

P-394**Detection of fungal beta-glucans by split enzyme-conjugated beta-glucan recognition proteins**

○Yoshiyuki Adachi, Ken-ichi Ishibashi, Naohito Ohno (Lab. Immunopharmacology Microbial Products, School Pharm., Tokyo Univ. Pharm. Life Sci.)

P-395**Quinolone resistance of human nasal and oral bacteria**

○Haruka Sugiyama¹, Tadashi Baba², Takashi Sasaki³, Keiichi Hiramatsu² (¹Juntendo Univ. School of Medicine, ²Center of Excellence for Infection Control Science, Graduate School of Medicine, Juntendo Univ., ³Department of Microbiology, Juntendo Univ. School of Medicine)

P-396**Study of adsorption of AHJD-like phages infecting *Staphylococcus aureus***

○Jumpei Uchiyama¹, Kenji Kurokawa², Iyo Uchiyama¹, Takako Ujihara³, Yoshihiko Sakaguchi⁴, Shigenobu Matsuzaki³, Masahiro Sakaguchi¹ (¹School of Veterinary Medicine, Azabu University, Kanagawa, Japan, ²Faculty of Pharmaceutical Sciences, Nagasaki International University, ³Kochi University, ⁴Kitasato University)

P-397**Elucidation of mechanism of bacterial type III secretion system inhibition by epigallocatechin gallate (EGCG)**

○Noboru Nakasone, Naomi Higa, Takayoshi Yamaguchi, Toma Claudia, Tetsu Yamashiro (Dept. Bacteriol., Gra. Sch. Med., Univ. of the Ryukyus)

P-398**Did reverse antibiotics affect bacterial differentiation?**

○Tadashi Baba¹, Haruka Sugiyama², Takashi Sasaki³, Yuh Morimoto¹, Keiichi Hiramatsu¹ (¹Center of Excellence for Infection Control Science, Graduate School of Medicine, Juntendo Univ., ²Juntendo Univ. School of Medicine, ³Dept. Microbiology, Juntendo Univ. School of Medicine)

P-399**Reactivity of serum IgG to the intestinal microbes in ulcerative colitis**

○Tomomi Kuwahara¹, Chihiro Morieda², Haruyuki Imaohji¹, Hideki Ishikawa³, Katsuichiro Okazaki² (¹Dept. Microbiol., Sch. Med., Kagawa Univ., ²Dept. Appl. Sci., Sch. Agr., Kagawa Univ., ³Ishikawa Clinic)

P-400**Induction of selective autophagy by S-guanylation**

○Daiki Takahashi, Hirokazu Arimoto (Graduate School of Life Sciences, Tohoku University)

P-401**Modification of vancomycin based on interaction analysis with *S. aureus* PBP2**

○Arisa Hatakeyama¹, Kaori Itto¹, Masayoshi Sakakura², Hideo Takahashi², Hirokazu Arimoto¹ (¹Grad. Sch. Life Sci., Tohoku Univ., ²Grad. Sch. Med. Life Sci., Yokohama City Univ.)

P-402

Deciphering the mode of action of cell wall-inhibiting antibiotics using metabolic labeling of growing peptidoglycan in *Streptococcus pyogenes*

○Asuka Maeda, Atsushi Sugimoto, Kaori Itto, Hirokazu Arimoto (Grad. Sch. Life Sci., Tohoku Univ.)

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Discrimination method of *Candida dubliniensis* isolated from clinical materials

○Kentarou Higuchi, Shigekazu Iguchi, Atushi Yoshida, Yutaka Uzawa, Ken Kikuchi (Tokyo Women's Medical University Hospital)

Luncheon Seminar

LS1

March 19, Sunday 12:10–13:10
Room 1 (Exhibition Hall 1)

Chair: Ken Kikuchi (Tokyo Women's Medical Univ.)

Cosponsor: Nippon Becton Dickinson Company, Ltd.

LS1

Phenotype and genotype analysis of antimicrobial-resistant Gram-negatives

Satowa Suzuki (Dept. Bacteriology II, Natio. Instit. Infec. Dis.)

LS2

March 20, Monday 12:40–13:40
Room 4 (Meeting Room 3)

Chair: Norihiro Seki (Illumina K.K. Regional Marketing, Japan)

Cosponsor: Illumina K.K.

LS2

Commensal bacteria and diets in health and diseases

Jun Kunisawa (Laboratory of Vaccine Materials, National Institutes of Biomedical Innovation, Health and Nutrition)

LS3

March 21, Tuesday 12:30–13:30
Room 1 (Exhibition Hall 1)

Chair: Tomohiro Sawa (Kumamoto Univ.)

Cosponsor: SRL Inc.

LS3

Update on the laboratory diagnosis of infectious diseases

Kiyofumi Ohkusu (Dept. Microbiol, Tokyo Med. Univ.)