The 98th Annual Meeting of Japanese Society for Bacteriology

General Meeting

Friday, May 30　12:40–14:40
Room 1 (Concert Hall)

Award Lecture

Friday, May 30　12:40–14:40
Room 1 (Concert Hall)

Study on the virulence factors of pathogenic streptococci
◯Shigetada Kawabata (Department of Microbiology, Graduate School of Dentistry, Osaka University)

Special Lecture

SL　The Microbiome and Gut Homeostasis

Friday, May 30　14:45–15:45
Room 1 (Concert Hall)

Chair: Yukako Fujinaga (Kanazawa University)

SL
The Microbiome and Gut Homeostasis
◯Andreas Bäumler (Dept. Medical Microbiology and Immunology, Sch. Medicine, Univ. California Davis)

Symposium

S1　Activities of World-leading Vaccine Research and Development Centers

Thursday, May 29　8:45–11:15
Room 1 (Concert Hall)

Conveners: Tetsuya Iida (Osaka University)
Yasuhiko Suzuki (Hokkaido University)

S1-1
Japan Initiative for World-leading Vaccine Research and Development Centers
◯Kawaguchi Yasushi[1,2] ([1]The University of Tokyo Pandemic Preparedness Infection and Advanced Research Center, [2]The Institute of Medical Science, The University of Tokyo)

S1-2
PanChol: a novel live-attenuated oral cholera vaccine
Masataka Suzuki[1], Deborah R. Zingl[1,2], Akina Osaki[1], Damien Slater[1], Jason Harris[1], Lindsey R. Baden[1], ◯Matthew K. Waldor[1], BWH clinical investigation team[1] ([1]Div. Infectious Diseases, Mass General Brigham, [2]Dept. Microbiology, Harvard Medical School)

S1-3
Commensal microbes modulate host immune antibody responses
◯Yoshiyuki Goto[1], McCuaig Bonita[1] ([1]Div. Mol. Immunol., MMRC., Chiba Univ., [2]Dev. Infect. Med. Res. Inst. Disaster Med, Chiba Univ., [3]Dev. Vaccine. Res. Inst. Disaster Med, Chiba Univ., [4]Syn. Inst. Future Muc. Vac. Res. Dev, Chiba Univ.)

S1-4
Tuberculosis: From Basic Research to Clinical Application
◯Stefan H.E. Kaufman[1,2] ([1]Max Planck Institute for Infection Biology, [2]Charité – Univ. Clinics Berlin, Corporate Member of Freie Universität Berlin and Humboldt-Universität zu Berlin)

S1-5
Deciphering human T cell responses during infection
◯Sho Yamasaki[1,2,3,4] ([1]Dept. Molecular Immunol., RIMD, The Univ. of Osaka, [2]Lab. Molecular Immunol., The Univ. of Osaka, [3]CiDER, The Univ. of Osaka, [4]CAMaD, The Univ. of Osaka)

S2　Frontline of Biofilm research

Thursday, May 29　8:45–11:15
Room 2 (Hougaku Hall)

Conveners: Nobuhiko Nomura (Tsukuba University)
Yuki Kinjo (Jikei University School of Medicine)

Co-sponsorship by The Japanese Society for Biofilm Research

S2-1
Moonlighting functions of extracellular phospholipids in biofilm matrix of *Staphylococcus aureus*
◯Shinya Sugimoto[1,2,3], Yuki Kinjo[1,2] ([1]Dept. Bacteriol., Jikei Univ. Sch. Med., [2]Jikei Center for Biofilm Sci. Techcnol., Jikei Univ. Sch. Med., [3]Lab. Amyloid Regulation., Jikei Univ. Sch. Med.)

S2-2
Microbial Food Chain -*Fusobacterium* orchestrates oral biofilms-
◯Masae Kuboniwa (Dept. Prevent. Dent., Grad. Sch. Dent., Osaka Univ.)

S2-3
Formation mechanism of unconventional biofilm structures by bacteria covered with adhesive hair
◯Katsutoshi Hori (Dept. Biomolecular Eng., Grad. Sch. Eng. Nagoya Univ.)

S2-4
Biofilms and dormancy that related to intractable infectious diseases caused by mycobacteria
◯Sohkichi Matsumoto (Dept. Bacteriol. Niigata Univ. Sch. Medicine)

S2-5
Interaction of pathogenic bacteria and fungus in dual biofilm
◯Norio Takeshita (MiCS, Tsukuba Univ.)

S2-6
Mechanistic insights into biofilm-mediated device-related infection by *Acinetobacter baumannii*
◯Go Kamoshida[1], Daiki Yamaguchi[2], Keita Oki[1], Noriteru Yamada[2], Norihiko Takemoto[3], Ryuichi Nakano[4], Hisakazu Yano[4], Yuji Morita[1] ([1]Dept. Infect. Cont. Sci., Meiji Pharm. Univ., [2]Lab. Microbiol. and Infect. Cont., Kyoto Pharm. Univ., [3]Pathogenic Microbe lab., Dept. Infect. Dis., NCGM, [4]Dept. Microbiol. and Infect. Dis., Nara Med. Univ.)

S3 Taxonomy and Nomenclature of Bacterial Species in the Genomic/Metagenomic Era

Thursday, May 29 8:45–11:15
Room 3 (Koryu Hall)

Conveners: Yoshiaki Kawamura (AichiGakuin University)
Mitsuo Sakamoto (RIKEN)

S3-1
Overview of bacterial nomenclature and taxonomy
◯Satoshi Tamazawa (NITE/NBRC)

S3-2
Current Practices in Bacterial Classification
◯Yoshiaki Kawamura (Dept. Microbiol., Sch. Pharm., AichiGakuin Univ.)

S3-3
Bacterial identification and classification in the genomic era
◯Kaori Tanaka (Anaerobe. Bacteriol. iGMol., Gifu Univ.)

S3-4
Introduction of SeqCode, genome-based taxonomy of prokaryotes
◯Takuro Nunoura (CeBN, JAMSTEC)

S3-5
Culture Collections and ICSP & SeqCode
◯Mitsuo Sakamoto (RIKEN BRC-JCM)

S4 Host-pathogen interplay mediated by ubiquitin

Thursday, May 29 12:45–15:15
Room 1 (Concert Hall)

Conveners: Kohei Arasaki (Tokyo University of Pharmacy and Life Sciences)
Tomoko Kubori (Gifu University)

S4-1
Subversion of the host endocytic pathway by *Legionella pneumophila*-mediated ubiquitination of Rab5
◯Kohei Arasaki[1], Shino Tanaka[1], Hiromu Oide[1], Tomoko Kubori[2], Hiroki Nagai[2,3] ([1]Sch. Life Sci., Tokyo Univ. Pharm. and Life Sci., [2]Dept. Microbiol., Grad. Sch. Med., Gifu Univ., [3]COMIT, Gifu Univ.)

S4-2
Characterization and Functional Insights into the Deamidase Family in *Legionella*
◯Minsoo Kim[1], Tohru Tezuka[1], Tsunehiro Mizushima[2] ([1]Lab. Integrative Molecular Medicine, Grad. Sch. Med., Kyoto Univ., [2]Dept. Science, Grad. Sch. Sci., Univ. Hyogo)

S4-3
Bacterial escape from host defense mediated by the interferon-inducible ubiquitin E3 ligase RNF213
◯Jörn Coers (Duke Univ. Sch. Medicine)

S4-4
Multi-tired regulation of host ubiquitin system by *Legionella pneumophila*
◯Tomoko Kubori[1], Kohei Arasaki[2], Hiroki Nagai[1] ([1]Dept. Microbiol., Sch. Med., Gifu Univ., [2]Sch. Life Sci, Tokyo Univ. Pharm Life Sci.)

S4-5
Bacterial manipulation of host ubiquitin signaling
◯Jonathan Pruneda (Dept. Molecular Microbiology and Immunology, Oregon Health & Science Univ.)

S4-6
Modulation of Bacterial Infection by Ubiquitination
◯Ichiro Nakagawa (Dept. Microbiol., Sch. Med., Kyoto Univ.)

S5　Current Status and Future Challenges of Microbial Monitoring

Thursday, May 29　12:45–15:15
Room 2 (Hougaku Hall)

Conveners: Fumito Maruyama (Hiroshima University)
Ryuji Kawahara (Osaka Institute of Public Health)

Co-sponsorship by Shimadzu Coporation

S5-1
Potential and challenges of monitoring drug-resistant bacteria through urban wastewater surveillance
◯Ryuji Kawahara (Osaka Inst. Public Health)

S5-2
Investigation of ESBL-producing *Escherichia coli* in retail food and river water in Tokyo
◯Yukari Nishino, Hiromi Obata, Megumi Ichikawa, Hanako Mitsuhashi, Sumiyo Kuroda, Kaeko Yamazaki, Keiko Yokoyama, Hirofumi Miyake, Kenji Sadamasu (Dept. Microbiol., Tokyo Met. Inst. Pub HLTH.)

S5-3
Wastewater-based Epidemiology: New Research Developments in the Post-COVID Era
◯Masaaki Kitajima (RECWET, Sch. Eng., Univ. Tokyo)

S5-4
eDNA Sampler and In situ Gene Analyzer : Potential Applications in Microbiology
◯Tatsuhiro Fukuba[1,2] ([1]JAMSTEC, [2]IIS, Univ. Tokyo)

S5-5
Challenges for Quantitative Analysis of Airborne Microorganisms
◯So Fujiyoshi, Fumito Maruyama (PHIS, IDEC, Hiroshima Univ.)

S6　The Strategies of Skin Damaging Pathogens

Thursday, May 29　12:45–15:15
Room 3 (Koryu Hall)

Conveners: Takahito Toyotome (International University of Health and Welfare)
Chihiro Aikawa (Obihiro University of Agriculture and Veterinary Medicine)

S6-1
Identification of bacteria affecting the immune activation by *Staphylococcus aureus*
◯Yasuhiko Matsumoto, Takashi Sugita (Dept. Microbiol., Meiji Pharm. Univ.)

S6-2
The skin microbiome: research and future in medicine
◯Hayashi Naoki (Maruho Co., Ltd.)

S6-3
Molecular mechanisms of cell morphogenesis in dermatophytes
◯Masaki Ishii (Research Inst. Pharmaceutical Sciences, Fac. Pharmacy, Musashino Univ.)

S6-4
Molecular mechanisms of acquired antifungal drug resistance in dermatophytes
◯Tsuyoshi Yamada[1,2] ([1]Inst. Med Mycol., Teikyo Univ., [2]Asia Intl. Inst. Infect. Dis. Ctrl., Teikyo Univ.)

S6-5
The critical role of vascular permeability and chemotaxis in *Vibrio vulnificus* pathogenesis
◯Kohei Yamazaki[1], Mugiho Omori[1], Minori Takimoto[1], Kai Ishida[2], Takaaki Shimohata[3], Kazuki Yoshioka[4], Takashige Kashimoto[1] ([1]Lab. Vet. Public Health, Sch. Vet. Med., Kitasato Univ., [2]Dept. Infect. Dis., Kyoto Pref. Med. Univ., [3]Dept. Mar. Sci. Tec., Fukui Pref. Univ., [4]Lab. Vet. Anatomy, Sch. Vet. Med., Kitasato Univ.)

S6-6
Visualization of antimicrobial treatment efficacy in cutaneous infections of *Mycobacterium marinum*
◯Kentaro Yamamoto[1], Shota Torigoe[1,2], Yusuke Tsujimura[1], Masamitsu Asaka[1], Kayo Okumura[2], Manabu Ato[1] ([1]Dept. Mycobacteriol., Lepr. Res. Ctr., NIID, [2]Biosafety. Res. Ctr., Lab. Anim., and Pathog. Bank, NIID)

S7　Recommendations for Research Abroad: Take Lessons from International Eminent Principal Investigators

Friday, May 30　8:45–11:15
Room 1 (Concert Hall)

Conveners: Hirotaka Hiyoshi (Nagasaki University)
Hideki Hara (Asahikawa Med University)

S7-1
Microbiota-Host Interactions in Health and Disease
◯Gabriel Nunez (Univ. Michigan)

S7-2
Autophagy and antimicrobial defense
◯Ken Cadwell (Div. Gastroenterology and Hepatology, Dept. Medicine, Univ. Pennsylvania Perelman Sch. Medicine)

S7-3

Investigating host-pathogen interactions using animal models of disease

Matthew K. Waldor (Mass General Brigham, Harvard Medical School)

S7-4

African Salmonella enterica Serovar Typhimurium ST313 Isolates Prevent Reactive Oxygen Species Production by Human Neutrophils via Elevated PgtE Expression

◯Renee Tsolis[1], Annica Stull-Lane[1], Lizbeth Camacho[1], Hirotaka Hiyoshi[2] ([1]Dept. Medical Microbiology and Immunology, Univ. California at Davis, [2]Dept. Bacteriology, Inst. Tropical Medicine, Nagasaki Univ.)

S8 Antibiotic-resistant bacteria do not wait for serious situations, and there is no silver bullet for infectious diseases

Friday, May 30 8:45–11:15
Room 2 (Hougaku Hall)

Conveners: Hiroji Chibana (Medical Mycology Research Center, Chiba University)
Shizuo Kayama (National Institute of Infectious Diseases)

S8-1

Current status and future perspectives on AMR strategies based on surveillance data

◯Aki Hirabayashi, Koji Yahara, Sayoko Kawakami, Toshiki Kajihara, Yumiko Hosaka, Hirokazu Yano, Norikazu Kitamura, Motoyuki Sugai (AMR Res. Ctr., NIID)

S8-2

In vitro activity of cefiderocol against carbapenemase-producing Gram-negative bacteria (JARBS-GNR)

◯Shizuo Kayama, Sayoko Kawakami, Aoki Sadao, Mikihisa Okuda, Liansheng Yu, Wataru Hayashi, Yo Sugawara, Koji Yahara, Motoyuki Sugai (Antimicro. Resist. Res., NIID)

S8-3

Development of antifungal drugs using a genome-wide mutant platform in *Candida glabrata*

◯Hiroji Chibana (Med. Mycol, Ctr., Chiba. Univ.)

S8-4

Challenges and Prospects for the Development of Antimicrobial Agents with Novel Mechanisms of Action

◯Hiroshi Hamamoto (Dept. Infect. Dis., Yamagata Univ. Fac. Med.)

S9 Microbiology meets micro-nano engineering

Friday, May 30 8:45–11:15
Room 3 (Koryu Hall)

Conveners: Daisuke Nakane (UEC)
Kentaro Tsukamoto (Osaka University)

Co-sponsorship by JSPS Grant-in-Aid for Transformative Research Areas (B) The reason why microbes are moving

Supported by AMED

S9-1

What happens when bacteria go out into the wild?

◯Daisuke Nakane (Dept. Eng. Sci., UEC)

S9-2

Microvessel-on-a-chip: A novel platform for evaluating host-pathogen interactions in *Bartonella*

◯Kentaro Tsukamoto (Lab. Bacterial Zoonoses., RIMD, Osaka Univ.)

S9-3

In vitro tube-shaped intestinal model with crypt-like inner surface for bacterial co-culture

◯Hiroaki Onoe (Dept. Mech. Eng., Faculty of Sci, and Tech., Keio Univ.)

S9-4

Development a of a liver-on-a-chip for the liver invasion by malaria parasites

◯Naoaki Shinzawa[1], Minami Baba[1], Reina Okada[1], Sayaka Deguchi[2], Kazuo Takayama[2], Tomoko Ishino[1] ([1]Dept. Parasitol. Trop. Med., Grad. Sch. Med. Dent., Ins. Sci. Tokyo, [2]CiRA, Kyoto Univ.)

S9-5

Surface and mechanical property measurements of microbial cells using atomic force microscopy

◯Keisuke Miyazawa[1,2], Takeshi Fukuma[1,2] ([1]Faculty of Frontier Engineering, Inst. of Sci. and Eng., Kanazawa Univ., [2]WPI-NanoLSI, Kanazawa Univ.)

S10　Emerging interactions between bacteria and self-referential immunity

Saturday, May 31　9:10–11:40
Room 1 (Concert Hall)

Conveners: Kouyuki Hirayasu (Kanazawa University)
Kensuke Shibata (Kyushu University)

Co-sponsorship by Self-referential immune perception

S10-1
Phylogenetic and structural insights into the evolution of a mycobacterial sensor Mincle
◯Taiki Ito[1,2], Carla Guenther[1,2], Eri Ishikawa[1,2], Takae Yabuki[1,2], Masamichi Nagae[1,2], Sho Yamasaki[1,2,3] ([1]Dept. Mol. Immunol., RIMD, Osaka Univ., [2]Lab. Mol. Immunol., IFReC, Osaka Univ., [3]CiDER, Osaka Univ.)

S10-2
Self and Non-Self Recognition Mediated by the Leukocyte Receptor Complex
◯Kouyuki Hirayasu (Adv. Prev. Med. Sci. Res. Cen., Kanazawa Univ.)

S10-3
Sterile induction of innate immunity in Drosophila larvae
◯Takayuki Kuraishi (Fac. Pharm., Kanazawa Univ.)

S10-4
Peyer's patch M-cell-dependent commensal uptake confers encephalitogenic phenotypes on γδT17 cells
◯Daisuke Takahashi, Seiga Komiyama, Yotaro Kodaira, Koji Hase (Dept. Pharm. Sci., Fac. Pharm, Keio Univ.)

S10-5
Elucidation of the mehcanism regulated by bacterial metabolites in ocular homeostasis
◯Kensuke Shibata[1,2,3] ([1]Dept. Microbiol. Immunol., Sch. Med., Yamaguchi Univ., [2]Dept. Ocular Pathology and Imaging Science, Sch. Med., Kyushu Univ., [3]Dept. Mol. Immunol., RIMD, Osaka Univ.)

S11　Beyond Borders: Challenges for International Students and Postdocs

Saturday, May 31　9:10–11:40
Room 2 (Hougaku Hall)

Conveners: Toyotaka Sato (Hokkaido University)
Jumpei Fujiki (Rakuno Gakuen University)

Supported by American Society for Microbiology (ASM)

S11-1
Genetic diversity and antimicrobial resistance of *Salmonella* in Thai canal water from 2016 to 2020
◯Jirachaya Toyting[1,2], Toyotaka Sato[2,3], Neunghatai Supha[4], Yuwanda Thongpanich[4], Motohiro Horiuchi[2,3], Jeewan Thapa[1], Chie Nakajima[1], Yasuhiko Suzuki[1,5], Fuangfa Utrarachkij[4] ([1]Div. Biores., Hokkaido Univ. Int. Inst. Zoonosi. Contr., [2]Lab. Vet. Hyg., Fac. Vet. Med., Hokkaido Uni., [3]One Health Res. Cent. Hokkaido Univ., [4]Dept. Microbiol., Fac. Publ. Health, Mahidol Univ., [5]Div. Res. Sup., Int. Vac. Res. Dev., Hokkaido Univ.)

S11-2
SAA1 from host facilitates *S. pneumoniae* adaption to acidic stress induced by anaerobic metabolism
◯Weichen Gong[1], Masayuki Ono[1], Tomoko Sumitomo[2], Momoko Kobayashi[1], Yujiro Hirose[1], Shigetada Kawabata[1] ([1]Dept. Animal Food Function, Grad. Sch. Agricultural Science, Tohoku Univ., [2]Dept. Oral Microbiol., Sch. Bio. Sci., Tokushima Univ.)

S11-3
Pathogenic and Antibiotic Resistance Genes in EPEC E. coli from Chicken Meat in Vietnam and Japan
◯Yen Le[1], Takuya Mizuno[2], Kaori Tanaka[1], Yoshimasa Yamamoto[1] ([1]UGS-DDMIS, Gifu Univ., [2]Dept. Public Health Sciences, Gifu PHEI)

S11-4
Development of an Antibacterial Phage Capsid for selective removal of target bacteria from the gut
◯Mahmoud Arbaah, Shinya Watanabe, Yoshifumi Aiba, Thuy Nguyen, Md Razib Hossain, Kazuhiko Miyanaga, XinEe Tan, Teppei Sasahara, Longzhu Cui (Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

S11-5
Preparation of a Phage Cocktail against Carbapenem-resistant Enterobacter cloacae Complex Strains
◯Matthew Imanaka[1,2], Satoshi Tsuneda[2], Kotaro Kiga[1,3] ([1]Res. Cent. Drug Vaccine Dev., Natl. Inst. Infect. Dis., [2]Dept. of Life Sci and Med. Biosci., [3]Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

S11-6

TBC1D9 regulates IL-6 production via ARID5A-mediated mRNA stabilization in Innate Immune Responses

◯Xin Hu, Takashi Nozawa, Atsuko Nozawa, Kazunori Murase, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. of Med., Kyoto Univ.)

S11-7

Regulatory role of a PAI-encoded c-di-GMP phosphodiesterase in *Vibrio parahaemolyticus*

◯Andre Pratama[1], Eiji Ishii[1], Toshio Kodama[2], Tetsuya Iida[1], Shigeaki Matsuda[1] ([1]Dept. Bact. Infect., RIMD, Osaka Univ., [2]Dept. Bactereiol., Nekken, Nagasaki Univ.)

S11-8

Distinct BafA Secretion in *Bartonella henselae* Strains: Implication for BafA Secretion Mechanism

◯Xingyan Ma, Kentaro Tsukamoto (Dept. Bact. Zoon., RIMD, Osaka Univ.)

S11-9

A mouse model for human typhoid fever

◯T Hoan Pham[1], Kohei Yamazaki[2,3], Andreas J. Baumler[3], Toshio Kodama[1], Hirotaka Hiyoshi[1,3] ([1]Dept. Bacteriol., Ins. Trop. Med., Nagasaki Univ., [2]Labo. Vete. Publ. Heal., Sch. Vete Med., Kitasato Univ., [3]Dept. Med. Microbiol. Immunol., Sch. Med., California at Davis Univ., USA)

S11-10

Elements of a minimal bacteriophage T7 transcription terminator Tφ

◯Huong Minh Nguyen[1,2], Sooncheol Lee[1], Changwon Kang[1] ([1]Dept. Biological Sciences, KAIST, [2]Div. Bacteriology, Jichi Med. Univ.)

S11-11

Virulence, phylogroups, resistance, biofilm, and motility in environmental *Escherichia coli*

◯Ida Munfarida, Ryota Watanabe, Jant Cres Caigoy, Xedzro Christian, Toshi Shimamoto, Tadashi Shimamoto (Grad. Sch. Integrated Sci. Life, Hiroshima Univ.)

S11-12

Gliotoxin acts as a potent inhibitor against bacterial O-acetylserine sulfhydrylase CysK and CysM

◯Azizur Rahman[1], Katsuhiko Ono[1], Touya Toyomoto[1], Kenjiro Hanaoka[2], Tomohiro Sawa[1] ([1]Dept. Microbiology, Sch. Medical Sciences, Kumamoto Univ., [2]Div. Analytical Chemistry for Drug Discovery, Fac. Pharmacy, Grad. Sch. Pharmaceutical Sciences, Keio Univ.)

Workshop

WS1 Bacterial Infectious Diseases in the tropics: Challenges for Global Health

Thursday, May 29 15:25–17:25
Room 1 (Concert Hall)

Conveners: Shuichi Nakamura (Tohoku University)
Jun Xu (University of the Ryukyus)

Supported by Japanese Society of Tropical Medicine

WS1-1

The role of the gut microbiota in susceptibility to *V. cholerae* infection and severity of disease

Denise Chac[1], Fahima Chowdhury[2], Ashraf I. Khan[2], Susan Markieweiz[1], Taufiqur Bhuiyan[2], Gwen Dumayas[1], Regina C. LaRocque[3], Jason B. Harris[3], Firdausi Qadri[2], ◯Ana A Weil[1] ([1]Univ. Washington Sch. Medicine, [2]International Center for Diarrheal Diseases Research, Bangladesh, [3]Massachusetts General Hospital Dept. Medicine)

WS1-2

The Role of Morphological Adaptability in *Vibrio cholerae*'s Motility and Pathogenicity

◯Jun Xu[1], Keigo Abe[2], Toshio Kodama[3], Marzia Sultana[4], Denise Chac[5], Susan Markiewicz[5], Hideyuki Matsunami[6], Erika Kuba[1], Shiyu Tsunoda[1], Munirul Alam[4], Ana Weil[5], Shuichi Nakamura[2], Tetsu Yamashiro[1] ([1]Dept. Bacteriol., Grad. Sch. Med., Univ. Ryukyus, [2]Dept. Appl. Phys., Grad. Sch. Eng., Tohoku Univ., [3]NEKKEN, Grad. Sch. Med., Nagasaki Univ., [4]Infectious Diseases Division, ICDDR, B., Bangladesh, [5]Dept. Med., Univ. Washington, US, [6]Mol. Cryo-EM Unit, OIST)

WS1-3

Host adaptation and virulence mechanisms of Vibrio parahaemolyticus

◯Toshio Kodama, Sarunporn Tandhavanant (Dept. Bacteriol., Inst. Trop. Med., Nagasaki Univ.)

WS1-4

Leptospirosis

◯Nobuo Koizumi (Dept. Bacteriol. I, Natl. Inst. Infect. Dis.)

WS1-5

Methicillin Resistant Staphylococcus aureus among Pediatric Acute Respiratory Cases in Vietnam

◯Laymyint Yoshida[1], Fujioka Atsushi[1,2], Hien-Anh Nguyen[3], Michiko Toizumi[2], Morinaga Yoshitomo[4], Kosuke Kosai[4], Katsunori Yanagihara[4], Mohammad Monir Shah[1], Duc-Anh Dang[3] ([1]Dept. Ped Infect. Dis., Inst. Tropical Medicine, Nagasaki Univ., [2]Grad. Sch. Biomedical Science, Nagasaki Univ., [3]National Institute of Hygiene and Epidemiology, Hanoi, [4]Dept. Laboratory Medicine, Nagasaki Univ.)

WS4　Bacteriology lernt from each case

Friday, May 30　15:55–17:55
Room 1 (Concert Hall)

Conveners: Shinji Yamasaki (Osaka Metropolitan University)
Hiromi Nakamura (Osaka Institute of Public Health)

WS4-1
Clustered cases of Legionnaires' disease that occurred in a certain area of Osaka Prefecture
◯Takahiro Yamaguchi[1], Yusuke Takahashi[1], Yuji Hirai[1], Kaori Yamamoto[1], Rika Takada[2], Yuka Shoji[2], Nobuko Nishida[2], Masaru Kinoshita[2], Takao Kawai[1], Hitomi Nagai[3] ([1]Div. Microbio., Osaka Inst. Pub. Health, [2]Ibaraki Public Health Center, Osaka Pref., [3]Dept. Public Health and Medical Affairs, Osaka)

WS4-2
A retrospective investigation of a food poisoning outbreak of EHEC by raw horse meat, 2023
◯Junji Seto (Dept. Microbiol., Yamagata Pref. Inst. Public Health)

WS4-3
Multiple clusters of diarrheas due to a possible new category of diarrheagenic E. coli
◯Akiko Kubomura (Japan Institute for Health Security)

WS4-4
Recent Insights into Staphylococcal Enterotoxins and Their Impact on Food Poisoning
◯Hisaya Ono[1], Yasunori Suzuki[2], Dong-Liang Hu[1] ([1]Lab. Zoonoses, Kitasato Univ. Sch. Vet. Med., [2]Lab. Animal Hygiene, Kitasato Univ. Sch. Vet. Med.)

WS4-5
Genotyping and characterization of strains isolated from foodborne campylobacteriosis patients
◯Hiromi Nakamura[1], Ryohei Nomoto[2], Shiho Shiraishi[1], Kaori Yamamoto[1], Takayuki Wada[3,4], Yuki Wakabayashi[1], Ryuji Kawahara[1] ([1]Bacteriol. Sec., OIPH, [2]Kobe Inst, Heal., [3]Dept. Microbiol. Grad. Sch. Hum. Life Ecol., Osaka Metro. Univ., [4]Osaka Intl. Res. Center Infect. Dis., Osaka Metro. Univ.)

WS7　Recent advancements in oral microbiome research for promoting health

Saturday, May 31　13:00–15:00
Room 1 (Concert Hall)

Conveners: Toru Takeshita (Kyushu University)
Miki Kawada-Matsuo (Hiroshima University)

WS7-1
Role of oral microbiota as a microbial reservoir and its establishment
◯Shinya Kageyama (Sect. Prevent. Dent. Public Health, Grad. Sch. Dent., Kyushu Univ.)

WS7-2
Implications of Metabolic Interconnectivity in Oral Microbiomes for Oral and Systemic Health
◯Akito Sakanaka (Dept. Prevent. Dent., Grad. Sch. Dent., Osaka Univ.)

WS7-3
Nitrate metabolism by the oral microbiome and its association with oral and systemic health
◯Jumpei Washio, Kazuko Ezoe, Yuki Abiko, Nobuhiro Takahashi (Div. Oral. Ecol. Biochem., Grad. Sch. Dent., Tohoku Univ.)

WS7-4
Basic research for novel bacteriocin and phage therapy targeting pathobionts within the microbiome
◯Miki Kawada-Matsuo, Hitoshi Komatsuzawa (Dept. Bacteriol., Grad. Sch. Biomed. and Health Sci., Hiroshima Univ.)

WS7-5
Age-related dysbiosis of oral microbiota through B cell senescence
◯Shimpei Kawamoto (Dept. Mol. Biol., RIMD, Osaka Univ.)

WS8　Wakate colosseum for bacteriology —Young bacteriological research for the future—

Saturday, May 31　13:00–15:00
Room 2 (Hougaku Hall)

Conveners: Masaki Mizutani (National Institute of Advanced Industrial Science and Technology)
Miki Okuno (Kurume University)
Shin-Ichiro Miyashita (Tokyo University of Agriculture)

WS8-1
Salmonella's immune-evasion strategies promoted by host immunity and antibiotics
○Uki Kimura[1], Karen Saiki[1], Nobuhiro Matsuyama[1], Akiko Takaya[2], Koji Tokoyoda[1] ([1]Div. Immunol., Grad. Sch. Med. Sci., Tottori Univ., [2]Dept. Infect. Cont. Sci., Grad. Sch. Pharm. Sci., Chiba Univ.)

WS8-2
Motility of *Haloplasma*, the primitive Mollicutes reconstituted in a minimal synthetic bacterium
○Mone Mimura[1], Hana Kiyama[1], Haruka Yuasa[1], Shingo Kato[2], Hirofumi Wada[3], Shigeyuki Kakizawa[4], Tomoko Miyata[5,6], Fumiaki Makino[5,6,7], Keiichi Namba[5,6], Makoto Miyata[1,8] ([1]Grad. Sch. Sci., Osaka Metropolitan Univ., [2]RIKEN BRC., JCM., [3]Dept. Sci. and Eng., Ritsumeikan Univ., [4]Bioproduction Res. Inst., AIST., [5]Grad. Sch. Frontier Biosci., Osaka Univ., [6]JEOL YOKOGUSHI Res. Alliance Lab. Osaka Univ., [7]JEOL Ltd., [8]OCARINA, Osaka Metropolitan Univ.)

WS8-3
Single-cell Observation Reveals a Regulatory Factor of Cell Elongation in Ammonia-Oxidizing Bacteria
○Shuto Ikeda[1], Hirotsugu Fujitani[2], Satoshi Tsuneda[1] ([1]Dept. Life Sci. Med. Biosci., Sch. Adv. Sci. Eng., Waseda Univ., [2]Dept. Biol. Sci., Sch. Sci. Eng., Chuo Univ.)

WS8-4
Improved physiological classification of *E. coli* phages correlates with receptor specificity
○Tomoyoshi Kaneko[1,2], Toshifumi Osaka[3], Minoru Inagaki[4], Kento Habe[1], Hiromasa Mizutani[1], Satoshi Tsuneda[1,2] ([1]Dept. Life Sci. Med. Biosci., Sch. Adv. Sci. Eng., Waseda Univ., [2]Phage Therapy Inst., Waseda Univ., [3]Dept. Microbiol. Immunol., Tokyo Wom. Med. Univ., [4]Grad. Sch. Bioresour., Mie Univ.)

WS8-5
Strategic phage therapy for E.coli cystitis
○Mana Tohyama[1], Haruka Ohashi[1], Tomohiro Nakamura[1,2], Jumpei Fujiki[1], Hidetomo Iwano[1] ([1]Dept. Biochemistry, Sch. Veterinary, Rakuno Gakuen Univ., [2]Reserach Center for Drug and Vaccine Development, National Institute of Infectious Diseases)

WS8-6
Regulation by autophagy-related factors in morphology of the dimorphic fungus *Trichosporon asahii*
○Mei Nakayama, Yasuhiko Matsumoto, Ayumi Yonemoto, Kazumu Miyamoto, Sanae Kurakado, Takashi Sugita (Dept. Microbiol., Meiji Pharm. Univ.)

WS8-7
Energy landscape Analysis: Stability and Predictability of Bacterial Community Composition
○Genta Shima[1], Hirokazu Toju[1], Kenta Suzuki[2] ([1]Div. Integr. Life Sci., GSB, Kyoto Univ., [2]Integr. Bioresour. Info. Div., BRC, RIKEN)

WS9　Bacteriological Research in the Category of Clinical Laboratory Sciences

Saturday, May 31　13:00–15:00
Room 3 (Koryu Hall)

Conveners: Shigefumi Okamoto (Osaka University)
Takuichi Sato (Niigata University)

WS9-1
Molecular techniques and applications for the diagnosis of infectious diseases
○Kiyofumi Ohkusu (Dept. Microbiol, Tokyo Med. Univ.)

WS9-2
Genomic epidemiology of multidrug-resistant bacteria
○Ryoichi Saito (Dept. Mol. Microbiol. Immunol., Science Tokyo)

WS9-3
Development of serological diagnosis for cat scratch disease using Japanese strain YH-01
○Masashi Yanagihara (Dept. Clin. Lab. Biomed. Sci., Grad. Sch. Med., Osaka Univ.)

WS9-4
Molecular epidemiology for regional infectious disease control by public health institute
○Noriko Nakanishi, Ryohei Nomoto (Dept. Infec. dis., Kobe Inst.)

WS9-5
Effect on the viability of pathogenic bacteria on high-touch surfaces heated to body temperature
○Torahiko Okubo[1], Kotoka Kuriki[1], Ayano Konno[2], Shinji Nakamura[3], Hiroyuki Yamaguchi[1] ([1]Fac. Health Sci., Hokkaido Univ., [2]Hokkaido Inst. Pub. Health, [3]Div. Biomed. Imag. Res., Juntendo Univ. Grad. Sch. Med.)

WS9-6

An example of microbiological research by a young researcher in the field of medical technology

◯Anna Wakui[1,2], Takuichi Sato[2] ([1]Dept. Med. Technol., Niigata Univ. Health Welfare, [2]Div. Clin. Chem., Niigata Univ. Grad. Sch. Health Sci.)

WS10　Ingenious strategies of bacteria using virulence factors

Saturday, May 31　15:15–17:15
Room 1 (Concert Hall)

Conveners: Hideki Hara (Asahikawa Medical University)
Kei Sakamoto (Yamaguchi University)

WS10-1

Exacerbation mechanisms of Gram-positive pathogen infection through inflammasome responses

◯Hideki Hara (Dept. Infect. Dis., Asahikawa Med. Univ.)

WS10-2

Exotoxin/effector-mediated pathogenicity of *Vibrio parahaemolyticus*

◯Shigeaki Matsuda (Dept. Bact. Infect., RIMD, Osaka Univ.)

WS10-3

Comprehensive analysis of bacterial strategies that regulate host cell death

◯Hiroshi Ashida[1], Toshihiko Suzuki[1] ([1]Dept. Bacterial Infection and Host Response, Institute of SCIENCE TOKYO, [2]Medical Mycology Research Center, Chiba Univ.)

WS10-4

***Legionella* manipulates host SNAREs using multimodal post-translational modifications**

◯Tomoe Kitao[1], Tomoko Kubori[2], Hiroki Nagai[2] ([1]Div. Infect. Immun., Int'l. Inst. for Zoonosis Ctrl., Hokkaido Univ., [2]Dept. Microbiol., Grad. Sch. Med., Gifu Univ.)

WS10-5

Inactivation mechanism and evolutionary role of hyaluronidase HylA in Streptococcus pyogenes

◯Masaya Yamaguchi (NIBIOHN)

WS11　Antimicrobial activity of natural substances —Update for Future Strategies in Infectious diseases—

Saturday, May 31　15:15–17:15
Room 3 (Koryu Hall)

Conveners: Mayuko Osada-Oka (Kyoto Prefectural University)
Masami Miyake (Osaka Metropolitan University)

WS11-1

Mixture design of antibacterial plant extracts via machine learning

◯Hiroaki Yabuuchi (Tanabe Health Center, Wakayama Pref.)

WS11-2

Analysis of the action of germination inhibitors against *Clostridium* and *Bacillus* spp. spores

◯Masami Miyake[1,2], Rana Okawaki[2], Kensuke Sakurai[2], Mayo Yasugi[1,2], Satoshi Sekimoto[3] ([1]Lab. Vet. Public Health, Grad. Sch. Vet. Sci., Osaka Metro. Univ., [2]Lab. Vet. Public Health, Dept. Vet. Sci., Osaka Pref. Univ., [3]Life Sol. Tech. Center, Mitsubishi Chemical Co.)

WS11-3

Antimicrobial activity of Red ginseng for methicillin-resistant Staphylococcus aureus

◯Mayuko Osada-Oka[1,2], Akari Shinohara[2], Dendi Krisna Nugraha[3], Ichiro Nakagawa[4], Yasuhiko Horiguchi[3] ([1]Food Hyg. and Environ Health, Grad. Sch. of Life and Environ. Sci., Kyoto Pref. Univ., [2]Food Hyg. and Environ. Health, Fac. of Agr. and Food Sci., Kyoto Pref. Univ., [3]Dep. of Mol. Bac., Res. Inst. for Microb. Dis., Osaka Univ., [4]Dep. of Microb., Grad. Sch. of Med., Kyoto Univ.)

WS11-4

An enterococcal phage-derived enzyme suppresses graft-versus-host disease

◯Satoshi Uematsu[1,2] ([1]Dept. Imm. & Gen., Grad. Sch. Med., Osaka Metropolitan Univ., [2]Div. Metagenome Med., IMS., U Tokyo)

WS11-5

Diverse anti-infectious diseases actions of natural products such as ascofuranone and 5-ALA

◯Kiyoshi Kita (Sch. Trop. Med. Global Health, Nagasaki Univ.)

Research Presentations by Junior High School and High School Students

JRS Research Presentations by Junior High School and High School Students

Saturday, May 31 8:45–11:45
Room 3 (Koryu Hall)

Conveners: Naoya Ohara (Okayama University)
Yoshitoshi Ogura (Kurume University)

JRS-1
Analysis of bacteria detected from used multifunctional non-woven fabric masks
◯Naotaro Oda[1], Yuki Kato[2], Mirai Sekiguchi[2], Shingo Maruyama[2], Anna Wakui[2,3] ([1]Ikarashi Junior High School, Niigata City, [2]Div. Clin. Chem., Niigata Univ. Grad. Sch. Health Sci., [3]Dept. Med. Technol., Niigata Univ. Health Welfare)

JRS-2
Analysis of bacteria detected from smartphone touchscreen
◯Yuto Ikarashi[1], Naotaro Oda[2], Yuki Kato[3], Shingo Maruyama[3], Anna Wakui[3,4] ([1]Toyano Junior High School, Niigata City, [2]Ikarashi Junior High School, Niigata City, [3]Div. Clin. Chem., Niigata Univ. Grad. Sch. Health Sci., [4]Dept. Med. Technol., Niigata Univ. Health Welfare)

JRS-3
About the bacteria in rock salt
◯Souta Teraoka, ◯Satoshi Ikefuji, ◯Ichita Otani (SENRI High school)

JRS-4
Bacterial growth in partially consumed bottle
◯Yukina Tao (Takatsuki High School)

JRS-5
Quantification of mold within Wakasa High School
◯Iroha Hatashita, ◯Mirei Kadono, ◯Runa Kajihara, ◯Aika Nakahata (Wakasa Senior High School)

JRS-6
Experimental Investigation of the Impact of Glycine on Bacterial Stress Resistance
◯Haruno Ota, Taku Saegusa (Meikei High School)

JRS-7
Analysis of Antibacterial Properties in Human Saliva: Examination of Effects on Gram-Positive Bacteria
◯Yui Asada (Kobe Univ. Secondary School)

JRS-8
Antibacterial properties of metal ions against Penicillium species
◯Takaharu Shiizu (Chiba Prefectural Funabashi Highschool)

JRS-9
Discussing Life Extension of Cut Flowers from the Perspective of Metal Ions
◯Hitmi Imai, ◯Sayo Endo, ◯Azuki Matsuda (Kyoto Prefectural Sagano High School)

JRS-10
Exploration of plant extracts that inhibit *Pseudomonas aeruginosa* biofilm formation
◯Miu Onishi[1], ◯Yuua Nakamura[1], ◯Keita Nogami[1], ◯Nana Mitamura[1], Miwa Kubo[2], Keiji Murakami[3] ([1]Shujitu High School, [2]Fac. Pharmaceutical Sciences, Tokushima Bunri Univ., [3]Dept. Clinical Nutrition, Fac. Health Science and Technology, Kawasaki Univ. Medical Welfare)

JRS-11
The reason why the cellulose biofilm of Acetobacter xylinum. stops growing
◯Takuma Yoneda (Yokohama Municipal Yokohama Science Frontier High School)

JRS-12
Plastic degradation by giant mealworms and the search for microorganisms involved in the decomposition
◯Takumi Hikita, ◯Haruto Watanabe, Daichi Nakayama, ◯Toranosuke Uchiyama, ◯Shirabe Tanoue, ◯Daiki Masunaga (Kumamoto Prefectural Kumamoto Kita High School)

JRS-13
Measurement of pH change in culture medium with lactobacilli and E. coli
◯Yuto Nakajima, ◯Ibuki Yoshida (Tokyo Metropolitan High School of Science and Technology)

JRS-14
Verification of the promotion of lactic acid fermentation with or without Koji
◯Sora Shouji, ◯Sayaka Ishi, ◯Fumika Iso, ◯Saki Takenaka (Ibaraki Prefectural Midorioka High School)

JRS-15
Regarding the temperature and time at which natto bacteria are inactivated
◯Yasuo Awata, ◯Daigo Noji, ◯Masaharu Takeuchi (Osaka Prefectural Senri High School)