

The 93rd Annual Meeting of Japanese Society for Bacteriology

Regular Meeting

20th, February (Thu) 13:10–14:20
Room 1 (2F Big Hall)

Special Lecture

SL1

19th, February (Wed) 15:50–17:10
Room 1 (2F Big Hall)

Chair: Yoshichika Arakawa (Nagoya Univ.)

SL1

Strategic promotion of Japanese Science, Technology and Innovation

○Michinari Hamaguchi^{1,2} (¹Chairperson of the Council for Science and Technology, MEXT, ²President of Japan Science and Technology Agency (JST))

SL2

20th, February (Thu) 14:30–15:30
Room 1 (2F Big Hall)

SL2

Challenges and Opportunities in Antibiotic Discovery

○Kim Lewis (Antimicrobial Discovery Center, Northeastern Univ.)

SL3

20th, February (Thu) 15:40–16:40
Room 1 (2F Big Hall)

Chairs: Yusuke Minato (Fujita Health Univ.)
Fumito Maruyama (Hiroshima Univ.)

Co-host: Fund for the Promotion of Joint International Research

SL3

Genetic tools for making better drugs and vaccines

○Eric Rubin^{1,2} (¹Harvard T. H. Chan Sch. Public Health Dept. Immunology and Infectious Diseases, ²Editor-in-Chief of the New England Journal of Medicine)

International Symposium

IS1 From understanding of AMR to development of drugs against AMR

19th, February (Wed) 9:10–11:40
Room 1 (2F Big Hall)

Conveners: Yohei Doi (Fujita Health Univ.)
Motoyuki Sugai (NIID)

IS1-1

Multidrug-resistant *Pseudomonas aeruginosa* in Japan and Asia

○Teruo Kirikae (Dept. Microbiol., Juntendo Univ. Sch. Med.)

IS1-2

Emerging resistance mechanisms in Enterobacteriaceae

○Yohei Doi^{1,2} (¹Div. Infect. Dis., Univ. Pittsburgh Sch. Med., ²Dept. Microbiol. Infect. Dis., Fujita Health Univ. Sch. Med.)

IS1-3

Distribution and Action for MCR Colistin Resistance

○Youjun Feng (Zhejiang Univ. Sch. Medicine)

IS1-4

National AMR Surveillance and AMR Bacterial Bank in Japan

○Motoyuki Sugai (AMR Research Center, NIID)

IS1-5

A Search for Novel Antibiotics

○Kim Lewis (Antimicrobial Discovery Center, Northeastern Univ.)

Symposium

S02 Strategies in Industry-Academia-Government Collaboration for Japanese Society for Bacteriology

19th, February (Wed) 9:10–11:40
Room 2 (5F Small Hall 1)

Conveners: Ken Kikuchi (Tokyo Women's Medical Univ.)
Hiroshi Tamura (Japan Bio-venture Development Association/LPS Consulting Office)

S02-1

Present Situation and Future Prospects of Liaison between Industries, Academies and Governments

○Tatsuro Shirai (Industries-Academies Liaison System Research Institute)

S02-2

Industry-government-academia collaboration to overcome the issues for the R&D of new antibacterials

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

S02-3

A new method for detecting and measuring bacteria

○Hiroshi Shiigi (Dept. Applied Chem. Sch. Eng., Osaka Pref. Univ.)

S02-4

An Innovation which is NOT ONLY come from science and technology

○Yasushi Hara (Dept. Econ., Hitotsubashi Univ.)

S03 Molecular Mechanism of Infection and Immunity

19th, February (Wed) 9:10–11:40
Room 3 (5F Small Hall 2)

Conveners: Yutaka Terao (Niigata Univ.)
Makoto Takeda (NIID)
Kazuyoshi Kawakami (Tohoku Univ.)

Co-host: The Federation Microbiological Society of Japan,
The Japanese Society for Virology, The Japanese
Association for Infectious Diseases, Japanese Society
for Host Defence Research

S03-1

Xenophagy induction mechanism during Group A Streptococcus infection

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

S03-2

MxA functions as an inflammation sensor against influenza virus infection in respiratory epithelium

○Atsushi Kawaguchi (Dept. Inf. Biol., Fac. Med, Univ. Tsukuba)

S03-3

New insights for pathogenesis of pulmonary NTM disease obtained from clinical studies

○Makoto Ishii (Div. of Pulm. Med., Dept. Med., Keio Univ. Sch. Med.)

S03-4

Characterization and function of intestinal eosinophil subsets

○Jun Kasamatsu^{1,2}, Satoru Joshita⁴, Ko Sato¹, Kazuyoshi Kawakami^{1,3}, Marco Colonna² (¹Dept. Intell. Netw. Infect. Control., Sch. Med., Tohoku Univ., ²Dept. Pathol. Immunol., Sch. Med., Washington Univ., ³Dept. Med. Microbiol. Mycol. Immunol., Sch. Med., Tohoku Univ., ⁴Dept. Gastroenterol. Nephrol. Hematol., Sch. Med., Shinshu Univ.)

S04 Beyond antibiotics—Biology toward the control of infectious diseases

19th, February (Wed) 9:10–11:40
Room 4 (7F 703+704)

Conveners: Tetsuya Iida (Osaka Univ.)
Yukako Fujinaga (Kanazawa Univ.)

S04-1

Development of therapeutic agents against EHEC infections based on the biology of Shiga toxin

○Kiyotaka Nishikawa (Facul. Life Med. Sci., Doshisha Univ.)

S04-2

Structural basis for bacterial colonization towards the development of an anti-adhesion agent

○Shota Nakamura (Res. Inst. for Microb. Dis., Osaka Univ.)

S04-3

Virulence regulatory systems in pathogenic bacteria

○Tomoe Kitao, Tomoko Kubori, Hiroki Nagai (Dept. Microbiol., Grad. Sch. Med., Gifu Univ.)

S04-4

Investigation of the protector(s) in gut against intestinal infection of *Clostridium botulinum*

○Yukako Fujinaga (Dept. Bacteriology. Grad. Sch. Med., Kanazawa Univ.)

S04-5

Resistance to bacterial infection induced by microbiota

○Kiyoshi Takeda^{1,2} (¹IFReC, Osaka Univ., ²Dept. Microbiol. Immunol., Grad. Sch. Med., Osaka Univ.)

S05 Nontuberculous mycobacteria and remarkable increase of refractory NTM diseases

19th, February (Wed) 9:10–11:40
Room 5 (11F 1102)

Conveners: Manabu Ato (NIID)
Yoshitaka Tateishi (Niigata Univ.)

S05-1

Epidemiology and Clinical Features of Nontuberculous Mycobacteriosis

○Naoki Hasegawa (Dept. Infect., Dis., Sch. Med., Keio Univ.)

S05-2

Nontuberculous Mycobacterial Disease Caused by Anti-Interferon- γ Autoantibody

○Takuro Sakagami (Dept. Resp. Med., Fac. Life Sci., Kumamoto Univ.)

S05-3

Genome-wide identification of essential genes in nontuberculous mycobacteria

○Yoshitaka Tateishi, Sohkiichi Matsumoto (Dept. Bacteriol. Sch. Med., Niigata Univ.)

S05-4

Development of gene manipulating tools for Non-Tuberculous Mycobacteria

○Manabu Ato (Dept. Mycobacteriol, Lepr. Res. Cntr. Nat, Inst. Infect. Dis.)

S05-5

Local diversification of MAC lung disease agent *Mycobacterium avium*

○Hirokazu Yano¹, Fumito Maruyama², Yukiko Nishiuchi³, Tomotada Iwamoto⁴ (¹Grad. Sch. Life Sci., Tohoku Univ., ²Microb. Genom. Ecol., Hiroshima Univ., ³Grad. Sch. Med., Osaka City Univ., ⁴Kobe Inst. Health, Kobe City)

S06 The fluctuation of infection and symbiosis

—How bacteria determine their destiny in the wavering between infection and symbiosis?

19th, February (Wed) 13:10–15:40
Room 1 (2F Big Hall)

Conveners: Hitomi Mimuro (Osaka Univ.)
Yasufumi Hikichi (Kochi Univ.)

S06-1

Persistence strategies of chronic *Helicobacter pylori* infection

○Hitomi Mimuro (Dept. Infect. Microbiol., RIMD, Osaka Univ.)

S06-2

A study of *Legionella* focused on the diversity in relationship with natural hosts

○Kenta Watanabe¹, Masato Tachibana², Takashi Shimizu¹, Masahisa Watarai¹ (¹Joint Faculty of Vet Med., Yamaguchi Univ., ²Grad. Sch., Med, Dent, Pharmaceut, Sci., Okayama Univ.)

S06-3

The current knowledges about molecules that are involved in outcome of *M. tuberculosis* infection

○Sohkiichi Matsumoto (Dept. Bacteriol. Niigata Univ. Med.)

S06-4

Being a mutualistic symbiont

○Yoshitomo Kikuchi (BPRI, AIST)

S06-5

Rhizobial type III effector controls leguminous symbiosis signaling

○Shin Okazaki (Tokyo Univ. Agr. Tech.)

S06-6

The quorum sensing elaborately regulates virulence of *Ralstonia solanacearum*

○Yasufumi Hikichi¹, Kenji Kai², Wakana Senuma¹, Chika Takemura¹, Akinori Kiba¹, Kouhei Ohnishi¹ (¹Fac. Agric. and Marine Sci., Kochi Univ., ²Sch. Life and Environmental Sci., Osaka Pref. Univ.)

S07 Research on highly pathogenic microbes in Japan

19th, February (Wed) 13:10–15:40
Room 2 (5F Small Hall 1)

Conveners: Takuhiro Matsumura (Kanazawa Univ.)
Takeshi Noda (Kyoto Univ.)

S07-1

Symbiotic relationships with *Francisella tularensis* in natural reservoir host

○Masahisa Watarai (Lab. Vet. Pub. Heal., Joint Fac. Vet. Med., Yamaguchi Univ.)

S07-2

Bacteriological study of strains isolated from patients with streptococcal toxic shock syndrome

○Tadayoshi Ikebe (Dept. Bacteriol. I, Natl Inst Infect Dis.)

S07-3

Control of anthrax in human and animals

○Hideaki Higashi (Res. Ctr. Zoonosis Ctrl., Hokkaido Univ.)

S07-4

Investigation of potential Lassa virus entry inhibitors

○Takeshi Noda (Lab. Ultrastruct. Virol., INFRONT, Kyoto Univ.)

S07-5

Working with deadly viruses: battling Ebola and influenza

○Yoshihiro Kawaoka (IMST)

S08 The structure of bacterial cell surfaces: its assembly and functional mechanism

19th, February (Wed) 13:10–15:40
Room 3 (5F Small Hall 2)

Conveners: Seiji Kojima (Nagoya Univ.)
Daisuke Shiomi (Rikkyo Univ.)

S08-1

Only one flagellum at the cell pole: regulation of the flagellar biogenesis in *Vibrio alginolyticus*

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

S08-2

Molecular machinery for subcellular positioning of bacterial magnetic organelle

○Azuma Taoka^{1,2} (¹Fac. of Biol. Sci. and Tech., Inst. of Sci. and Eng., Kanazawa Univ., ²WPI-NanoLSI, Kanazawa Univ.)

S08-3

Screening for novel substrates of an *Escherichia coli* intramembrane protease RseP

○Yohei Hizukuri, Tatsuhiko Yokoyama, Yoshinori Akiyama (Inst. Front. Life Med. Sci., Kyoto Univ.)

S08-4

New tool to analyze the bacterial outer membrane protein assembly "EMM assembly assay"

○Takuya Shiota, Edward Germany (OPPT, Univ. of Miyazaki)

S08-5

Evolution of cell surface during cyanobacterium-chloroplast conversion and its application

○Seiji Kojima (Technology Innovation Division, Panasonic Corporation)

S08-6

Outer membrane is required for proliferation of *Escherichia coli* L-form.

○Daisuke Shiomi¹, Taiki Chikada¹, Taku Oshima² (¹Dept. Life Science, Col. Science, Rikkyo Univ., ²Dept. Biotech., Appl. Bioinfo., Toyama Pref. Univ.)

S09 Bacterial infections and membranes

19th, February (Wed) 13:10–15:40
Room 4 (7F 703+704)

Conveners: Tomoko Kubori (Gifu Univ.)
Kohei Arasaki (Tokyo Univ. Pharmacy and Life Sciences)

S09-1

Vacuole manipulation by *Legionella* deubiquitinases

○Tomoko Kubori, Tomoe Kitao, Hiroki Nagai (Dept. Microbiol., Grad. Sch. Med., Gifu Univ.)

S09-2

A genome-wide CRISPR screen for bacterial glycan-binding toxins

○Toshiyuki Yamaji (Dept. Biochem. Cell Biol., NIID)

S09-3

Hierarchical autophagy induction during pneumococcal infection

○Michinaga Ogawa, Makoto Ohnishi (Bacteriol. I, Nat. Inst. Infect. Dis.)

S09-4

Application of *Legionella* effector for biochemical tools

○Kohei Arasaki (Sch. Life Sci, Tokyo Univ. Pharm. and Life Sci.)

S09-5

Analysis of mycobacterial protein PE_PGRS62 and PE_PGRS30

○Kazunori Matsumura¹, Hiroki Iwai², Teruo Kirikae³ (¹Dept. Disease Cont., Inst., NCGM, ²Dept. Infect. Dis., Inst., NCGM, ³Dept. Microbiol., Sch. Med., Juntendo Univ.)

S09-6

Regulation of xenophagy in group A *Streptococcus* infection

○Ichiro Nakagawa (Dept. Microbiol., Sch. Med., Kyoto Univ.)

S10 Microbial strategies for survival in response to environmental factors

19th, February (Wed) 13:10–15:40
Room 5 (11F 1102)

Conveners: Masanobu Nakata (Osaka Univ.)
Daisuke Takamatsu (National Agriculture and Food Research Organization)

S10-1

Thermosensitive pilus production by *Streptococcus pyogenes* via mRNA thermosensor

○Masanobu Nakata (Dept. Oral and Mol. Microbiol., Grad. Sch. Dent., Osaka Univ.)

S10-2

Environmental sensing in chemotaxis of *Vibrio cholerae*

○Ikuro Kawagishi¹, So-ichiro Nishiyama², Hirota Tajima¹ (¹Dept. Frontier Biosci., Hosei Univ., ²Dept. Appl. Life Sci., Niigata Univ. Pharm. Appl. Life Sci.)

S10-3

Survival strategies of a honey bee pathogen, *Melissococcus plutonius*, in bee colonies

○Daisuke Takamatsu^{1,2} (¹Natl. Inst. Anim. Hlth., NARO, ²Utd. Grad. Sch. Vet. Sci., Gifu Univ.)

S10-4

Expression of antibiotic resistance genes by self-genome editing and fluctuation

○Hideaki Maseda (Dept. Life Sci. & Biotec., Adv. Indust. Sci. & Tec.)

S10-5

Phylogenetic analysis and environmental adaption of multidrug efflux pumps

○Martijn Zwama¹, Akihito Yamaguchi², Kunihiko Nishino¹ (¹Dept. Biomolecular Science and Regulation, Inst. Scientific and Industrial Res., Osaka Univ., ²Lab. Cell Membrane Biology, Inst. Scientific and Industrial Res., Osaka Univ.)

S10-6**Mathematical modelling for understanding the environmental stress response in *Aspergillus fumigatus***

○Hiroki Takahashi^{1,2,3} (¹Med. Mycol. Res. Cent., Chiba Univ.,
²Mol. Chiral. Res. Cent., Chiba Univ., ³Plant. Mol. Sci. Cent.,
 Chiba Univ.)

S11 Mission of Japanese Society for Microbiology to control emergent pathogenic microorganisms due to expansion of international exchange

20th, February (Thu) 9:10–11:40
 Room 1 (2F Big Hall)

Convener: Ken Kikuchi (Tokyo Women's Medical Univ.)

S11-1**Bacterial diarrhea and infectious diseases control in Tokyo**

○Noriko Konishi, Maho Kawamura (Tokyo Met. Inst. of Pub
 HLTH., Dept. Microbiol.)

S11-2**Consideration for strengthening prevention of Enterohemorrhagic *Escherichia coli* related to the increment of Inbound**

○Toshio Sato (Manager of Quality Control Department, JAPAN
 BIOSCIENCES CO., LTD.)

S11-3**Immigrants; Impact on tuberculosis, especially in multidrug-resistance**

○Satoshi Mitarai (Dept. Mycobacterium Reference and
 Research, the Research Institute of Tuberculosis, Japan Anti-
 Tuberculosis association)

S11-4**Increasing number of inbound tourists and trends in bacterial infections**

○Makoto Ohnishi (National Institute of Infectious Diseases)

S12 AMR research and antibiotics research from Japan

20th, February (Thu) 9:10–11:40
 Room 2 (5F Small Hall 1)

Conveners: Kouji Kimura (Nagoya Univ.)
 Jun-ichi Wachino (Nagoya Univ.)

S12-1**Antimicrobial resistance in *Helicobacter cinaedi***

○Emiko Rimbara¹, Shigetaru Mori¹, Hyun Kim¹, Masato
 Suzuki², Keigo Shibayama¹ (¹Dept. Bacteriology II, Nat. Inst.
 Infect. Dis., ²AMR Centr., Nat. Inst. Infect. Dis.)

S12-2**Group B *Streptococcus* with reduced β -lactam susceptibility (GBS-RBS)**

○Kouji Kimura¹, Noriyuki Nagano², Yoshichika Arakawa¹ (¹Det.
 Bacteriol., Nagoya Univ. Grad. Sch. Med., ²Dept. Health and
 Med. Sci., Shinshu Univ. Grad. Sch. Med.)

S12-3**International spreading of ceftriaxone resistant *Neisseria gonorrhoeae***

○Makoto Ohnishi (Dept. Bacteriol., National Institute of
 Infectious Diseases)

S12-4**Measures against antimicrobial resistance bacteria in environment using genomics**

○Tsuyoshi Sekizuka, Koji Yatsu, Kentaro Itokawa, Masanori
 Hashino, Makoto Kuroda (Pathogen Genomics Center, Nat.
 Inst. Infect. Dis.)

S12-5**Development of antifungals using a mutant collection covering 99.9% of genes in *Candida glabrata***

○Hiroji Chibana (Med. Mycol. Res. Ctr. Chiba Univ.)

S12-6**Mechanisms of antibiotic resistance and development of agents for controlling antibiotic resistance**

○Jun-ichi Wachino, Yoshichika Arakawa (Dept. Bacteriol.,
 Nagoya Univ., Grad. Sch. Med.)

S12-7**Discovery and development of cefiderocol, a novel siderophore cephalosporin antibiotic**

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

S13 Is new drug discovery possible for Infectious diseases? Application of small compounds and biopharmaceuticals

20th, February (Thu) 9:10–11:40
 Room 3 (5F Small Hall 2)

Conveners: Ichiro Nakagawa (Kyoto Univ.)
 Tomohiro Sawa (Kumamoto Univ.)

S13-1**Development of a small-molecule inhibitor of the bacterial type III secretion system**

○Akio Abe (Lab. Bact. Infect., Kitasato Inst. LiSci., Kitasato
 Univ.)

S13-2

Novel strategies to find new targets for anti-tubercular drugs.

○Yusuke Minato (Dept. Microbiol., Sch. Med., Fujita Health Univ.)

S13-3

Bacterial cysteine synthase inhibitors and their antibacterial actions

○Tomohiro Sawa (Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ.)

S13-4

Strategy to develop small molecule and antibody-based inhibitors relying on biophysical techniques

○Makoto Nakakido^{1,2}, Chihiro Aikawa³, Satoru Nagatoishi⁴, Akinobu Senoo², Miyu Takeuchi¹, Masato Hoshino¹, Takuya Shimomura², Jose M. M. Caaveiro⁵, Ichiro Nakagawa³, Kouhei Tsumoto^{1,2,4} (¹Dept. Bioeng., Sch. Eng., Univ. of Tokyo, ²Dept. Chem. Biotech., Sch. Eng., Univ. of Tokyo, ³Sch. Med., Univ. of Kyoto, ⁴Inst. of Med. Sci., Univ. of Tokyo, ⁵Dept. Global Healthcare, Faculty of Pharm. Sci., Kyusyu Univ.)

S13-5

Inhibitory mechanisms of virus cellular entry: structure-guided drug development

○Takao Hashiguchi (Dept. Virology, Fac. Medicine, Kyushu Univ.)

S14 Progress of current studies to unravel fungal strategies for adapting to environmental stress

20th, February (Thu) 9:10–11:40
Room 4 (7F 703+704)

Conveners: Shigeki Nakamura (Tokyo Medical Univ.)
Hironobu Nakayama (Suzuka Univ. Medical Science)

Co-host: The Japanese Society for Medical Mycology

S14-1

The growth of *Aspergillus fumigatus* in the presence of serum

○Tatsuya Inukai, Takashi Umeyama, Satoshi Yamagoe, Yoshitsugu Miyazaki (Dept. Chemotherapy and Mycoses, NIID.)

S14-2

Interaction of *Aspergillus fumigatus* biofilm with host factors or pathogenic bacteria

○Takahito Toyotome^{1,2} (¹Dept. Vet. Med., Obihiro Univ. Agric. Vet. Med., ²Div. Clin. Res., MMRC, Chiba Univ.)

S14-3

Mechanisms of biofilm formation and screening for anti-biofilm agents in *Candida albicans*

○Sanae Kurakado, Takashi Sugita (Dept. Microbiol., Meiji Pharm. Univ.)

S14-4

Plant-derived signal sensing for infection-related morphogenesis of *Colletotrichum orbiculare*.

○Sayo Kodama, Yasuyuki Kubo (Grad. Sch. Life & Env. Sci., Kyoto Pref. Univ.)

S14-5

Current status and future of drug-resistant *Aspergillus*

○Masato Tashiro^{1,2} (¹Dept. Infect. Dis., Nagasaki Univ. Grad. Sch. Biomedical Sci., ²Nagasaki Univ. Hosp. Infect. Cont. and Edu. Cent.)

S15 Development of research for normal microflora and asymptomatic carriage

21st, February (Fri) 9:10–11:40
Room 1 (2F Big Hall)

Conveners: Ken Kikuchi (Tokyo Women's Medical Univ.)
Tohru Miyoshi-Akiyama (NCGM)

S15-1

Nasopharyngeal pneumococcal transmission, colonization, and infection

○Muneki Hotomi (Dept. Otorhinolaryngology Head and Neck Surgery, Wakayama Medical Univ.)

S15-2

Considering asymptomatic carriers of enteropathogenic pathogens and food poisoning

○Kenji Sadamasu (Dept. Microbiol., Tokyo Metr. Inst. Pub. Health)

S15-3

Mechanism of pathogenicity of *Streptococcus pyogenes* and *Streptococcus dysgalactiae*

○Tohru Miyoshi-Akiyama (Dept. Infect. Dis., Med. Nat. Cent. Glob. Helth. Med.)

S15-4

Characterization of *Streptococcus suis* isolated from porcine infectious endocarditis

○Tsutomu Sekizaki (Res. Center for Food Safety, Grad. Sch. Agr. Life Sci., Univ. of Tokyo)

S15-5

Change of virulence by mutation in *S. aureus* from asymptomatic carriage to severe infection

○Ken Kikuchi (Dept. Infect. Dis., Tokyo Women's Med. Univ.)

S16 The latest research for realization of phage therapy in the postantibiotic era

21st, February (Fri) 9:10–11:40
Room 2 (5F Small Hall 1)

Conveners: Satoshi Tsuneda (Waseda Univ.)
Mitsuoki Kawano (Chugokugakuen Univ.)

S16-1**What is necessary to apply bacteriophage therapy?**

○Hidetomo Iwano (Lab. Vet. Biochem. Dept. Vet. Med., Rakuno Gakuen Univ.)

S16-2**Characterization of *Staphylococcus aureus* phages and their possible application in phage therapy**

○Yasunori Tanji, Azam Aa Haeruman, Chanthol Peng, Kazuhiko Miyanaga (Sch. Life Science and Technol., Tokyo Inst. of Technol.)

S16-3**Toward practical application of bacteriophage therapy**

○Hiroki Ando (Dept. Microbiol., Grad. Sch. Med., Gifu Univ.)

S16-4**Development of a novel gene-targeted bactericidal technology using bacteriophage**

○Kotaro Kiga, Longzhu Cui (Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

S16-5**Path of phage therapy from experimental animal model to clinical study**

○Tomoko Hanawa¹, Takeaki Matsuda² (¹Dept. Infect. Dis., Kyorin Univ. Sch. Med., ²Dept. TCC, Kyorin Univ. Sch. Med.)

S16-6**Development of phage therapy using recombinant and natural phages and establishment of Phagebank**

○Mitsuoki Kawano (Dept. Human Nutrition, Fac. Contemp. Life Sci., Chugokugakuen Univ.)

S17 Structural analysis by electron microscopy for bacteria

21st, February (Fri) 9:10–11:40
Room 3 (5F Small Hall 2)

Conveners: Michio Homma (Nagoya Univ.)
Makoto Miyata (Osaka City Univ.)

S17-1**Supramolecular motility machineries of class *Mollicute* bacteria**

○Makoto Miyata^{1,2}, Takuma Toyonaga¹, Yuya Sasajima¹, Takayuki Kato^{3,5}, Akihiro Kawamoto^{3,5}, Tomoko Miyata³, Keiichi Namba^{3,4,6} (¹Grad. Sch. Sci. Osaka City Univ., ²OCARINA Osaka City Univ., ³Grad. Sch. Frontier Biosciences, Osaka Univ., ⁴Riken QBiC, ⁵Inst. Prot. Res. Osaka Univ., ⁶JOEL Yokogushi Res. Alliance. Lab. Osaka Univ.)

S17-2**Cryo-EM Structure of polymerized Type V pilus of *P. gingivalis* reveals assembly mechanism**

○Satoshi Shibata¹, Mikio Shoji², Hideyuki Matsunami¹, Melissa Matthews¹, Katsumi Imada³, Koji Nakayama², Matthias Wolf¹ (¹Mol. Cryo-EM Unit, OIST, ²Div. Oral Infect., Dept. Mol. Microbiol. Immunol., Sch. Biomed. Sci., Nagasaki Univ., ³Grad. Sch. Sci., Osaka Univ.)

S17-3**Structural analysis of the flagellar motor by CryoEM**

○Takayuki Kato¹, Fumiaki Makino², Tomoko Miyata³, Akihiro Kawamoto¹, Tomoko Yamaguchi^{3,4}, Peter Horvath³, Keiichi Namba^{3,4,5} (¹IPR, Osaka Univ., ²JEOL, ³Grad. Front. Biosci., Osaka Univ., ⁴BDR, RIKEN, ⁵JEOL YOKOGUSHI RAL, Osaka Univ.)

S17-4**Structural and functional comparison between actin filament and ParM filaments**

○Akihiro Narita (Dept. Sci, Nagoya Univ.)

S17-5**Cryo-EM network in Japan. How to access cryo-EM.**

○Toshiya Senda (SBRC, IMSS, KEK)

S18 Regulating with RNA in Bacteria

21st, February (Fri) 9:10–11:40
Room 4 (7F 703+704)

Conveners: Teppei Morita (Suzuka Univ. Medical Science)
Masatoshi Miyakoshi (Univ. Tsukuba)

S18-1**The role of transcription termination in sRNA biogenesis**

○Teppei Morita (Fac. Pharm. Sci., Suzuka Univ. Med. Sci.)

S18-2

Intrinsic Ribosome Destabilization Underlies Translation and Provides a Strategy of Mg²⁺ Sensing

○Yuhei Chadani¹, Tatsuya Niwa¹, Takashi Izumi¹, Nobuyuki Sugata¹, Asutaka Nagao², Tsutomu Suzuki², Shinobu Chiba³, Koreaki Ito³, Hideki Taguchi¹ (¹Inst. of Innovative Res., Tokyo Inst. of Tech., ²Grad. Sch. Eng., The Univ. of Tokyo, ³Fac. of Life Sci., Kyoto Sangyo Univ.)

S18-3

Structural and functional studies of the ribosomal stalk protein

○Kosuke Ito^{1,2}, Kei Maruyama², Hirotatsu Imai², Uchiumi Toshio^{1,2} (¹Dept. Biol., Fac. Sci, Niigata Univ., ²Grad. Sch. Sci. Technol., Niigata Univ.)

S18-4

Regulatory functions hidden in bacterial mRNAs

○Masatoshi Miyakoshi (Dept. Infect. Biol., Sch. Med., Univ. Tsukuba)

S18-5

sRNA regulates pathogenicity during persistent infection of Helicobacter

○Ryo Kinoshita-Daitoku^{1,2}, Kotaro Kiga¹, Ryota Otsubo², Yoshitoshi Ogura³, Takahito Sanada^{1,2}, Tokuju Okano⁴, Toshihiko Suzuki⁴, Yoshio Yamaoka⁵, Tetsuya Hayashi³, Hitomi Mimuro^{1,2} (¹Dept. Infect. Microbiol., RIMD, Osaka Univ., ²Div. Bacteriol., Int. Res. Ctr. Infct. Dis., Inst. Med. Sci., Univ. Tokyo, ³Dept. Bacteriol., Sch. Med. Sci., Kyushu Univ., ⁴Dept. Bact. Pathogen., Infect. Host Resp. Sch. Med. Dent., TMDU, ⁵Dept. Environmental Prevent. Med., Oita Univ.)

S18-6

MS2 affinity purification revealed the post-transcriptional regulation of EHEC virulence genes

○Naoki Sudo (Lab. Microbiol. Sch. Pharm. Kitasato Univ.)

S18-7

Global characterization of RNA-binding protein targetome

○Kotaro Chihara, Satoshi Tsuneda (Dept. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ.)

S19 Up-to-date of the functional peptides around the bacterial world

21st, February (Fri) 9:10–11:40
Room 5 (11F 1102)

Conveners: Atsushi Tabata (Tokushima Univ.)
Isao Nagaoka (Juntendo Univ.)

S19-1

Study of survival system using peptide in bacteria

○Hidenobu Senpuku (Dept. Microbiol. I, Nat. Inst. Infect. Dis.)

S19-2

Characteristics of Streptolysin S secreted from Anginosus group streptococci and their cytotoxicity

○Atsushi Tabata (Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ.)

S19-3

Protective action of host defense peptide LL-37 on a murine sepsis model

○Isao Nagaoka¹, Yumi Kumagai¹, Hiroshi Hosoda², Taisuke Murakami¹, Kaori Suzuki¹ (¹Dept. Host Defense & Biochem. Res., Sch. Med., Juntendo Univ., ²Dept. Mol. Microbiol., Fac. Life Sci., Tokyo Univ. Agri.)

S19-4

Skillful survival strategies with TCSs of commensal bacteria against antimicrobial peptides

○Miki Kawada-Matsuo¹, Hitoshi Komatsuzawa² (¹Dept. Oral. Microbiol., Grad. Sch. Med. and Dent., Kagoshima Univ., ²Dept. Bacteriol., Grad. Sch. Biomed. and Health. Sci., Hiroshima Univ.)

S19-5

Bacteriocin: Potential use for clinic and its cautions

○Hitoshi Komatsuzawa (Dept. Bacteriology, Grad. Sch. Biomedical and Health Sciences, Hiroshima Univ.)

S19-6

Development of a high-throughput strategy for discovery of potent analogues of antibiotic lysocin E

○Masayuki Inoue (Grad. Sch. Pharm. Sci., U. Tokyo)

Workshop

WS01 Pneumococcal infection reconsider through a multi-disciplinary approach —from epidemiology to vaccine and therapy—

19th, February (Wed) 15:50–17:50
Room 2 (5F Small Hall 1)

Conveners: Soichiro Kimura (Toho Univ.)
Yuki Kinjo (The Jikei Univ. Sch. Med.)

WS01-1

Epidemiological study of invasive pneumococcal infection (IPD)-focus on pediatric IPD research-

○Bin Chang¹, Shigeru Suga² (¹Dept. Bacteriol. I, NIID, ²Mie Hosp.)

WS01-2

Role of pneumococcal cell surface proteins in the pathological mechanism

○Masaya Yamaguchi (Dept. Oral Mol. Microbiol., Grad. Sch. Dent., Osaka Univ.)

WS01-3

Basic analysis of host response to *Streptococcus pneumoniae*

○Soichiro Kimura, Kazuhiro Tateda (Dept. Microbiol. Infect. Dis., Toho Univ. Sch. Med.)

WS01-4

Analysis of immune response by a protein-based pneumococcal vaccine

○Yuki Kinjo^{1,2,3} (¹Dept. Bacteriol., The Jikei Univ. Sch. Med., ²Jikei Cent. Biofilm Sci. Tech., The Jikei Univ. Sch. Med., ³Dept. Intelligent Network, Infect. Cont., Tohoku Univ. Grad. Sch. Med.)

WS01-5

Therapeutic strategy for the treatment of pneumococcal infection

○Hisanori Domon^{1,2} (¹Div. Microbiol. Infect. Dis., Niigata Univ., Grad. Sch. Med. & Dent. Sci., ²Res. Cent. Adv. Oral Sci., Niigata Univ., Grad. Sch. Med. & Dent. Sci.)

WS02 Infectious Diseases of Topics

19th, February (Wed) 15:50–17:50
Room 3 (5F Small Hall 2)

Conveners: Shinji Yamasaki (Osaka Prefecture Univ.)
Yoshio Iijima (Kobe Institute of Health)

WS02-1

Corynebacterium ulcerans

○Masaaki Iwaki (Dept. Bacteriol. II, Natl. Inst. Infect. Dis.)

WS02-2

Food-borne *Anisakis* infections in Japan

○Jun Suzuki (Dept. Microbiol., Tokyo Metro. Inst. Pub. Health)

WS02-3

Development of methods for examination of *Escherichia albertii*.

○Atsushi Hinenoya (Grad. Sch. Life Environ., Osaka Pref. Univ.)

WS02-4

***Escherichia albertii*: Genome-based basic and applied research**

○Tadasuke Ooka (Dept. Microbiol., Grad. Sch. Med. Dent. Sci., Kagoshima Univ.)

WS02-5

Towards better control of influenza

○Yoshihiro Kawaoka (IMST)

WS03 Selected Poster Workshop: in Taxonomy, Epidemiology, and Infectious Diseases

19th, February (Wed) 15:50–17:50
Room 4 (7F 703+704)

WS03-1 (P1-032)

Genome analyses of *E. coli* strains isolated as suspected causative agents in diarrhea outbreaks

○Yoshitoshi Ogura¹, Mari Sasaki², Hiroshi Narimatsu², Kai Ishimaru³, Yoko Arimizu¹, Yasuhiro Gotoh¹, Keiji Nakamura¹, Tetsuya Hayashi¹ (¹Dept. Bact., Facul. Med. Sci., Kyushu Univ., ²Lab. Micro., Oita Pref. Inst. Health Environ., ³Facul. Med., Sci. Kyushu Univ.)

WS03-2 (P1-001)

Microevolution of an epidemic monophasic variant of *Salmonella* Typhimurium in Japan

○Nobuo Arai^{1,2}, Tsuyoshi Sekizuka³, Yukino Tamamura², Masahiro Kusumoto², Atsushi Hinenoya¹, Shinji Yamasaki¹, Taketoshi Iwata², Ayako Watanabe-Yanai², Makoto Kuroda³, Masato Akiba^{1,2} (¹Grad. Sch. Life and Environ. Sci., Osaka Pref. Univ., ²Natl. Inst. Anim. Health, ³Natl. Inst. Infect. Dis.)

WS03-3 (P1-012)

Molecular epidemiological characteristics of *Enterobacter cloacae* complex blood isolates

○Sarangi Jayathilake¹, Nao Matsuo², Rina Nonogaki², Michiko Hayashi², Masahiro Suzuki³, Jin Wanchun¹, Jun-ichi Wachino¹, Kouji Kimura¹, Yoshichika Arakawa¹ (¹Dept. Bacteriol., Nagoya Univ. Grad. Sch. Med., ²Dept. Pathophysiol. Lab. Sci., Nagoya Univ. Grad. Sch. Med., ³Dept. Microbiol. Fujita Health Univ.)

WS03-4 (P1-011)

Genomic analysis of a pandrug-resistant *Klebsiella pneumoniae* sequence type 11

○Satoshi Nishida, Takane Kikuchi-Ueda, Tsuneyuki Ubagai, Yoshinori Sato, Shigeru Tansho-Nagakawa, Yasuo Ono (Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ.)

WS03-5 (P1-010)

Epidemiology of carbapenem-resistant *Enterobacteriaceae* in one university hospital (2014-2019).

○Tatsuki Mura¹, Miyako Asou¹, Emi Morita¹, Kazumi Kanaya¹, Kae Kawamura¹, Yoshitsugu Iinuma^{1,2} (¹Dept. Clin. Lab., Kanazawa Med. Univ. Hosp., ²Dept. Clin. Infect. Dis., Kanazawa Med. Univ.)

WS03-6 (P1-009)

Investigation of factors contributing to the invasiveness of *Streptococcus pyogenes emm 89*

○Yujiro Hirose¹, Masaya Yamaguchi¹, Tohru Miyoshi-Akiyama², Norihiko Takemoto², Rumi Okuno³, Takahiro Yamaguchi⁴, Hitoshi Otsuka⁵, Tomoko Sumitomo¹, Masanobu Nakata¹, Shigetada Kawabata¹ (¹Dept. Oral Mol. Microbiol., Osaka Univ. Grad. Sch. Dent., ²Pathogenic Microbe Lab., Dept. Infectious Diseases, NCGM., ³Dept. Microbiol., Tokyo Inst. Pub. Heal., ⁴Dept. Bacteriol., Osaka. Inst. Pub. Heal., ⁵Yamaguchi. Pref. Inst. Pub. Heal. Env.)

WS03-7 (P1-038)

The relationship between infant botulism and sudden infant death syndrome (SIDS)

○Takuhiro Matsumura, Sho Amatsu, Masahiro Yutani, Yukako Fujinaga (Dept. Bacteriol., Sch. Med. Sci., Kanazawa Univ.)

WS03-8 (P1-031)

Distinguished identification of *Rickettsia japonica* and non-pathogenic *Rickettsia* in ticks

○Eri Onoda¹, Hongru Su¹, Shigetoshi Sakabe², Shigehiro Akachi³, Hiromi Fujita⁴, Saori Oishi⁵, Fuyuki Abe⁵, Takashi Kanda⁵, Norio Ohashi¹ (¹Lab. Microbiol., Sch. Food Nutr. Sci., Univ. Shizuoka, ²Dept. Medic Infect Dis., Ise Red Cross Hosp., ³Mie Pref. Health Environ. Res. Inst., ⁴Mahara Inst. Med. Acari, ⁵Dept. Microbiol Shizuoka Inst. Environ. Hygiene)

WS04 Role of Bacteriology for the food safety

19th, February (Wed) 15:50–17:50
Room 5 (11F 1102)

Conveners: Tsutomu Sekizaki (Univ. Tokyo)
Jun Terajima (Iwate Univ.)

WS04-1

Dynamics of *Campylobacter* spp. in chicken at feeding, slaughtering and consumption

○Hiroshi Asakura¹, Shiori Yamamoto¹, Tatsuya Nakayama¹, Yoshimasa Sasaki¹, Hiromi Nakamura² (¹Div. Biomed. Food Res., Nath. Inst. Health Sci., ²Dept. Microbiol., Osaka Pref. Inst. Public Health)

WS04-2

Regulation of sporulation-germination cycle of a food-borne pathogen, *Clostridium perfringens*

○Masami Miyake^{1,2}, Mayo Yasugi¹ (¹Lab. Vet. Public Health, Grad. Sch. Life Env. Sci., Osaka Pref. Univ., ²Res. Center Food Safety, Osaka Pref. Univ.)

WS04-3

Multiplex PCR system for identifying broad *Escherichia coli* serotypes

○Atsushi Iguchi (Fac. Agr., Univ. Miyazaki)

WS04-4

Genomic and Metagenomic Approaches

○Tetsuya Iida (Dept. Bacterial Infect., Res. Inst. Microbial Dis., Osaka Univ.)

WS05 Selected Poster Workshop: in Genetics, Genomics, Biotechnology, Antimicrobial Substances and Drug Resistance

20th, February (Thu) 15:20–17:20
Room 2 (5F Small Hall 1)

WS05-1 (P2-079)

Global Genome Epidemiology Database (gGENEPID)

Tsuyoshi Sekizuka, Koji Yatsu, Kentaro Itokawa, ○Makoto Kuroda (Pathogen Genomics Center, Nat. Inst. Infect. Dis.)

WS05-2 (P2-084)

The mechanism responsible for the change in lactose hydrolysis during EHEC O121:19 cultivation

○Keiji Nakamura, Itsuki Taniguchi, Ruriko Nishida, Yasuhiro Gotoh, Yoshitoshi Ogura, Tetsuya Hayashi (Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ.)

WS05-3 (P2-088)

Analysis of sporulation control mechanism by a novel protein complex conserved in *Clostridium*

○Naoki Muto¹, Nozomu Obana^{2,3}, Nobuhiko Nomura^{3,4} (¹Grad. Sch. Life Environ. Sci., Univ. Tsukuba, ²TMRC, Fac. Medicine. Sci., Univ. Tsukuba, ³MRCS, Univ. Tsukuba, ⁴Fac. Life Environ. Sci., Univ. Tsukuba)

WS05-4 (P2-093)

History-dependent maintenance of resistant phenotype against resistant gene deletion

○Yuta Koganezawa¹, Miki Umetani^{1,2}, Moritoshi Sato^{1,2,3}, Yuichi Wakamoto^{1,2,3} (¹Dept. Multidisciplinary Sci., Grad. Sch. Arts and Sci., Univ. Tokyo, ²Res. Cent. Complex Syst. Biol., Univ. Tokyo, ³Universal Biol. Inst., Univ. Tokyo)

WS05-5 (P2-078)

Bird's-eye mapping of antimicrobial resistance plasmids in an Excel file by Python

○Yusuke Tsuda, Yoshichika Arakawa (Dept. Bacteriol., Grad. Sch. Med., Nagoya Univ.)

WS05-6 (P2-182)

blaCTX-M horizontal transfer intra- and inter- families

○Nobuyoshi Yagi, Itaru Hirai (Lab. Microbiol., Sch. Health. Sci., Univ. The Ryukyus)

WS05-7 (P2-181)**Genetic analysis of highly β -lactam-resistant mutants generated from OS-MRSA**

○Shinya Watanabe, Tanit Boonsiri, Kanate Thitianapakorn, XinEe Tan, Yoshifumi Aiba, Yusuke Sato'o, Kotaro Kiga, Yusuke Taki, Teppei Sasahara, Longzhu Cui (Div. Bacteriol., Dept. Infect. Immunity, Sch. Med., Jichi Med. Univ.)

WS05-8 (P2-192)**A study of killing *Legionella* spp. by mitomycin C induced phage**

○Kotaro Aoki, Tatsuya Nagasawa, Yoshikazu Ishii, Kazuhiro Tateda (Dept. Microbiol. Infect. Dis. Toho Univ. Sch. Med.)

WS06 Selected Poster Workshop: in Pathogenicity

20th, February (Thu) 15:20–17:20
Room 3 (5F Small Hall 2)

WS06-1 (P2-104)**Cholix interacts with prohibitins and induces apoptosis mitochondrial dysfunction in hepatocytes**

○Kinnosuke Yahiro¹, Kohei Ogura², Yasuhiko Terasaki³, Satoru Miyagi⁴, Eiki Yamasaki⁵ (¹Dept. Mol. Infect., Grad. Sch. Med. Chiba Univ., ²Adv. Health. Care. Sci. Res. Unit., Inst. Frnt. Sci. Init, Kanazawa Univ., ³Dept. Anal. Hum. Pathol., Nippon Med. Sch., ⁴Dept. Life Sci., Fac. Med., Shimane Univ., ⁵Diag. Cntr. Anim. Health. Food. Safety., Obihiro Univ. Agric. Vet. Med.)

WS06-2 (P2-103)**Domain analysis of BopN produced by *Bordetella*.**

○Saaya Kinoshita, Asaomi Kuwae, Akio Abe (Grad. Sch. Infection Control Sciences, Kitasato Univ.)

WS06-3 (P2-102)**Group A *Streptococcus* modulates host membrane trafficking to impair epithelial barrier integrity**

○Junpei Iibushi, Hitotaka Toh, Takashi Nozawa, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

WS06-4 (P2-097)**Role of GP96 on exacerbation of bacterial pneumonia following influenza infection**

○Tomoko Sumitomo¹, Masanobu Nakata¹, Satoshi Nagase², Yuki Takahara¹, Masaya Yamaguchi¹, Shigefumi Okamoto², Shigetada Kawabata¹ (¹Dept. Oral and Mol. Microbiol., Osaka Univ. Grad. Sch. Dent., ²Dept. Clin. Lab. Sci., Kanazawa Univ. Grad. Sch. Med., Pharm., and Health Sci.)

WS06-5 (P2-121)**Induction mechanism analysis of LAPosome-like vesicles in *Streptococcus pneumoniae*-infected cells**

○Sayaka Shizukuishi^{1,2}, Michinaga Ogawa¹, Naoki Takada^{1,3}, Akihide Ryo², Haruko Takeyama³, Makoto Ohnishi¹ (¹Bacteriol. I, Nat. Inst. Infect. Dis., ²Dept. Microbiol., Yokohama City Univ., Grad. Sch. Med., ³Dept. Life Sci. and Med. Biosci., Waseda Univ.)

WS06-6 (P2-127)**Gram-positive pathogens activate inflammasome to promote bacterial survival in infected mice**

○Hideki Hara¹, Gabriel Nunez², Akihiko Yoshimura¹ (¹Dept. Microbiol. Immunol., Sch. Med., Keio Univ., ²Dept. Pathol., Sch. Med., Univ. Michigan)

WS06-7 (P2-120)**Large peritoneal macrophage delivers *Salmonella* from the peritoneal cavity to the greater omentum**

○Akiko Takaya¹, Shogo Tashiro¹, Tatsunari Yokoi¹, Yoshiyuki Goto², Motomichi Takahashi³, Kentaro Oka³, Hiroto Kawashima¹, Tomoko Yamamoto² (¹Dept. Microbiol. Immunol., Grad. Sch. Pharm. Sci., Chiba Univ., ²MMRC, Chiba Univ., ³Miyarisan Pharm. Co. Ltd)

WS06-8 (P2-096)**Attachment of ETEC to intestinal cells via lipid-recognition by secreted protein**

○Yuka Imoto¹, Hiroya Oki², Kazuki Kawahara³, Tomoya Imai⁴, Shigeaki Matsuda², Toshio Kodama², Tetsuya Iida², Takuya Yoshida³, Tadayasu Ohkubo³, Shota Nakamura² (¹Sch. Pharm. Sci., Osaka Univ., ²RIMD, Osaka Univ., ³Grad. Sch. Pharm. Sci., Osaka Univ., ⁴RISH, Kyoto Univ.)

WS07 Selected Poster Workshop: in Ecology, Physiology, and Structure

20th, February (Thu) 15:20–17:20
Room 4 (7F 703+704)

WS07-1 (P2-050)**Macrophage-derived exosomes up-regulate the pro-inflammatory factors *E. coli* vesicle-dependently**

○Risa Imamiya¹, Mayuko Osada-Oka¹, Yukiko Minamiyama¹, Yasuhiko Horiguchi² (¹Food Hyg. Env. Health., Grad. Sch. Life Env. Sci., Kyoto Pref. Univ., ²Dept. Mol. Bact., RIMD, Osaka Univ.)

WS07-2 (P2-039)**Metabolism Changing of *Vibrio vulnificus* Infected Tissue in Wound Infection Model Mouse**

○Kai Ishida¹, Takaaki Shimohata¹, Yuna Kanda¹, Rumiko Masuda¹, Takashi Uebanso¹, Kazuaki Mawatari¹, Takashige Kashimoto², Akira Takahashi¹ (¹Dept. Preventive Environmental Nutrition, Ins. Biomed Sci., Tokushima Univ. Grad. Sch., ²Lab. Vet. Public Health, Sch. Vet. Med., Kitasato Univ.)

WS07-3 (P1-057)**Production of membrane vesicles and induction of anti-Gtfs antibody by *S. mutans* depending on Gtfs**

○Tomoyo Nakamura^{1,2}, Yusuke Iwabuchi², Naoki Narisawa², Fumio Takenaga², Ryoma Nakao¹, Hidenobu Senpuku¹ (¹Grad. Sch. Bioresour. Sci., Nihon Univ., ²Dept. Bacteriol. 1, Nati. Inst. Infect. Dis.)

WS07-4 (P2-049)**Live-cell imaging of physical properties in bacterial cell surface by phase mode of high-speed AFM**

○Yousuke Kikuchi¹, Yuuki Ichinaka¹, Masanori Toyofuku^{2,3}, Nozomu Obana^{3,4}, Nobuhiko Nomura^{2,3}, Azuma Taoka^{1,5} (¹Inst. Sci. Eng., Kanazawa Univ., ²Fac. Life Env. Sci., Univ. Tsukuba, ³Micro. Res. Cen. Sust., Univ. Tsukuba, ⁴Tran. Me. Res. Cen., Fac. Med., Univ. Tsukuba, ⁵WPI Nano Life Sci. Inst., Kanazawa Univ.)

WS07-5 (P2-062)**Spatio-temporal analysis of complex biofilm formed by skin microorganisms**

○Kaori Tsuruyu¹, Nobuhiko Nomura^{2,3}, Andrew S. Utada^{2,3}, Nozomu Obana^{3,4} (¹Grad. Sch. Life Environ. Sci., Univ. Tsukuba, ²Fac. Life Environ. Sci., Univ. Tsukuba, ³MiCS, Univ. Tsukuba, ⁴TMRC, Fac. Med., Univ. Tsukuba)

WS07-6 (P2-067)**The lantibiotics produced by the oral habitant trigger dysbiosis of intestinal microbiota**

○Hideo Yonezawa¹, Mizuho Motegi², Fuhito Hojo⁴, Yasutoshi Kuroki³, Kentaro Oka³, Motomichi Takahashi³, Takako Osaki¹, Shigeru Kamiya¹ (¹Dept. Infect. Dis., Kyorin Univ. Sch. Med., ²Dept. Pediatric Dent, Tokyo Med. and Dent. Univ., ³Miyarisan Pharm. Co. Ltd, ⁴Inst. Lab. Anim., Grad. Sch. Med., Kyorin Univ.)

WS07-7 (P2-044)**Collective motion of gliding *Flavobacteria* exhibits unforeseen vortices with dynamic rotation**

○Daisuke Nakane, Takayuki Nishizaka (Dept. Phys., Gakushuin Univ.)

WS07-8 (P2-043)**Reconstitution of *Spiroplasma* swimming and search for its origin in synthetic bacterium, syn3.0**

○Hana Kiyama¹, Shigeyuki Kakizawa², Makoto Miyata^{1,3} (¹Grad. Sch. Sci., Osaka City Univ., ²Bioprocess, AIST, ³OCARINA, Osaka City Univ.)

WS08 Paradigm shift in membrane vesicle research and their applications

21st, February (Fri) 13:00–15:00

Room 1 (2F Big Hall)

Conveners: Ryoma Nakao (NIID)

Masanori Toyofuku (Univ. Tsukuba)

WS08-1**A novel mechanism in bacterial membrane vesicle formation**

○Masanori Toyofuku^{1,2} (¹Faculty of Life and Environ. Sci., Univ. Tsukuba, ²MiCS)

WS08-2**Bacterial membrane lipid alteration and vesicle secretion in response to environmental changes**

○Yosuke Tashiro^{1,2} (¹Div. Appl. Chem. Biochem. Eng., Coll. Eng., Shizuoka Univ., ²JST, PRESTO)

WS08-3**Electrochemical catalytic function of membrane vesicle from bacteria**

○Akihiro Okamoto^{1,2,3} (¹Int. Cent. Mater. Nanoarchitect., Nat. Inst. Mat. Sci., ²Grad. Sch. Chem. Sci. Eng., Hokkaido Univ., ³PRESTO, JST)

WS08-4**Regulation of proteostasis via extracellular vesicles**

○Shinya Sugimoto (Dept. Bacteriol., Sch. Med., Jikei Univ.)

WS08-5**Mucosal immune responses following intranasal delivery of chimeric MVs carrying exogenous antigen**

○Ryoma Nakao¹, Satoru Hirayama¹, Naoko Matsumoto^{1,2}, Jens Karlsson³, Makoto Ohnishi¹ (¹Dept. Bacteriol. 1, Natl. Inst. Infect. Dis., ²Dept. Dent. Oral Surg., Shin-Yachimata Hosp., ³Dept. MTC, Karolinska Inst.)

WS08-6**Pathogenic mechanisms caused by extracellular vesicles: exosomes**

○Rikinari Hanayama (WPI-NanoLSI, Kanazawa Univ.)

WS09 I think that I was evaluated on this and became a PI. ~ To become a PI ~

21st, February (Fri) 13:00–15:00
Room 2 (5F Small Hall 1)

Conveners: Kouji Kimura (Nagoya Univ.)
Ichiro Nakagawa (Kyoto Univ.)

WS09-1

The way how to get PI position

○Sohkichi Matsumoto (Dep Bacteriol, Niigata Univ. Med.)

WS09-2

How to be PI in Pharmaceutical Sciences

○Teruo Kuroda (Dept. Microbiol., Grad. Sch. Biomed. Heal. Sci., Hiroshima Univ.)

WS09-3

My research experience before and after being PI

○Yukako Fujinaga (Dept. Bacteriology, Grad. Sch. Med., Kanazawa Univ.)

WS09-4

Identification and characterization of a novel virulence factor of *Helicobacter pylori*

○Keigo Shibayama (Dept. Bacteriology II, National Institute of Infectious Diseases)

WS09-5

Brief history of myself and messages for junior scientists

○Hiroki Nagai (Dept. Microbiol., Grad. Sch. Med., Gifu Univ.)

WS09-6

How to get the position of Nagoya Univ.

○Michio Homma (Div. Biol. Sci, Grad. Sch. Sci, Nagoya Univ.)

WS10 Cyclic nucleotides: the function and the role of low molecular signaling to control bacterial growth and behavior

21st, February (Fri) 13:00–15:00
Room 3 (5F Small Hall 2)

Conveners: Keiji Murakami (Tokushima Univ.)
Shogo Ozaki (Kyusyu Univ.)

WS10-1

A mechanism coordinating chromosomal replication and cell division in *Caulobacter crescentus*.

○Shogo Ozaki, Yasutaka Wakasugi, Tsutomu Katayama (Dept. Mol. Biol., Grad. Sch. Pharm. Sci., Kyushu Univ.)

WS10-2

Bacterial flagellar motility and c-di-GMP: a YcgR homolog PlzD in *Vibrio alginolyticus*

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

WS10-3

The control of biofilm formation by c-di-GMP in *Pseudomonas aeruginosa*

○Keiji Murakami, Fujii Hideki (Dept. Oral Microbiol. Inst. Biomed. Sciences, Tokushima Univ. Grad. Sch.)

WS10-4

Dynamic remodeling of hematopoietic niches by c-di-GMP

○Keiyo Takubo (Dept. Stem Cell Biol., NCGM)

WS11 Selected Poster Workshop: in Biophylaxis

21st, February (Fri) 13:00–15:00
Room 4 (7F 703+704)

WS11-1 (P2-153)

A proline biosynthesis mutant of the intracellular pathogen *Erysipelothrix rhusiopathiae*

○Sayaka Nishikawa¹, Yohsuke Ogawa¹, Kazumasa Shiraiwa¹, Masahiro Eguchi¹, Yoshihiro Shimoji^{1,2} (¹NIAH, NARO, ²Res. Inst. Biomed. Sci., Tokyo Univ. Sci.)

WS11-2 (P2-152)

Membrane vesicle-mediated immunogenic protein secretion in *Clostridium perfringens*

○Hibiki Okuwaki¹, Nozomu Obana^{2,3}, Kyoko Nagayama¹, Ryoma Nakao⁴, Hidenobu Senpuku⁴, Nobuhiko Nomura^{3,5} (¹Grad. Life Environ. Sci., Univ. Tsukuba, ²TMRC, Fac. Medicine, Univ. Tsukuba, ³MiCS, Univ. Tsukuba, ⁴Dept. Bacteriol I., Natl Inst Infect Dis., ⁵Fac. Life Environ. Sci., Univ. Tsukuba)

WS11-3 (P2-154)

Pioglitazone reinforces liver innate immunity against bacterial infection in aged mice

○Masahiro Nakashima, Manabu Kinoshita, Hiroyuki Nakashima, Shuhji Seki (Dept. Immunol. Microbiol., Nat. Def. Med. Col.)

WS11-4 (P2-147)

Antimicrobial peptide LL-37 induces antibacterial ectosomes from neutrophils and exosomes

○Yumi Kumagai¹, Taisuke Murakami¹, Kyoko Kuwahara², Isao Nagaoka¹ (¹Dept. Host Defense and Biochemical Research, Sch. Med., Juntendo Univ., ²Dept. Microbiol., Sch. Med., Juntendo Univ.)

WS11-5 (P2-166)

Biocontrol of *Clostridium perfringens* by using Two Types of Specific Endolysins

○Hirofumi Nariya¹, Maho Okada², Eiji Tamai³, Hiroshi Sekiya³, Toshi Shimamoto¹, Tadashi Shimamoto¹ (¹Lab. Food Microbiol. Hyg., Grad. Sch. Integrated Sci. Life., Hiroshima Univ., ²Lab. Food Microbiol. Hyg., Grad. Sch. Biosphere Sci., Hiroshima Univ., ³Dept. Infect. Dis., Col. Pharm. Sci., Matsuyama Univ.)

WS11-6 (P2-167)

Fitness Cost Induced by Phage Resistance Shifts Phage Susceptibility in *P. aeruginosa* mutant.

○Junpei Fujiki¹, Montgomery Munby¹, Tomohiro Nakamura¹, Satoshi Gondaira², Michihito Sasaki³, Masaru Usui⁴, Hidetoshi Higuchi², Hirofumi Sawa³, Yutaka Tamura^{4,5}, Hidetomo Iwano¹ (¹Lab. Vet. Bio. Chem., Sch. Vet. Med., RGU, ²Lab. Vet. Hyg., Sch. Vet. Med., RGU, ³Div. Mol. Pathobiol., Ctr. Zoonosis. Cont., Hokkaido Univ., ⁴Lab. Food. Microbiol., Sch. Vet. Med., RGU, ⁵Ctr. Vet. Drug. Dev., RGU)

WS11-7 (P2-164)

Therapeutic phage-mediated control of skin microbiome in atopic dermatitis.

○Yuzuki Shimamori^{1,2}, Tohru Suzuki³, Shoichi Mitsunaka¹, Masumi Saito³, Kazuhiro Kuzui³, Shigeki Takeda², Tomoko Kubori¹, Hiroki Nagai¹, Hiroki Ando¹ (¹Dept. Microbiol., Sch. Med., Gifu Univ., ²Sch. Sci. and Tech., Gunma Univ., ³Fac. of Appl. Biol. Sci., Gifu Univ.)

WS11-8 (P2-165)

Generation of bactericidal chimeric phage against MRSA using phagemid

○Feng-Yu Li, Kotaro Kiga, Xin Ee Tan, Longzhu Cui (Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

WS12-2

MazF, a sequence-specific endoribonucleolytic toxin, conserved in *Nitrospira*

○Rie Aoi^{1,2}, Tatsuki Miyamoto^{1,2}, Akiko Yokota², Yuri Ota^{1,2}, Hirotsugu Fujitani^{2,3}, Satoshi Tsuneda¹, Naohiro Noda^{1,2} (¹Dept. Life Sci. Med. Biosci., Sch. Adv. Sci. Eng., Waseda Univ., ²Biomed. Res. Inst., AIST, ³Res. Org. Nano Life Innov., Waseda Univ.)

WS12-3

RodZ regulates assembly of Rod complex in *Escherichia coli*.

○Risa Ago¹, Sho Okamoto², Hironori Niki², Daisuke Shiomi¹ (¹Dept. Life Science, Col. Science, Rikkyo Univ., ²Nat. Inst. Gen.)

WS12-4

Characterization of the lytic capability of the endolysin derived from *Staphylococcus aureus* phage

○Tomohiro Nakamura, Junpei Fujiki, Junya Kitana, Hidetomo Iwano (Lab. Vet. Biochem., RGU)

WS12-5

A novel silkworm infection model with fluorescence imaging using *Trichosporon asahii* expressing eGFP

○Yasuhiko Matsumoto¹, Hideki Yamazaki¹, Yusuke Yamasaki¹, Yuki Tateyama¹, Tsuyoshi Yamada², Takashi Sugita¹ (¹Dept. Microbiol., Meiji Pharm. Univ., ²Teikyo Univ. Inst. Med. Mycol.)

WS12 Outstanding Presentations in Wakate Colosseum for Bacteriology in Miyagi Zao

21st, February (Fri) 13:00–15:00

Room 5 (11F 1102)

Conveners: Masaya Yamaguchi (Osaka Univ.)
Yasuhiko Matsumoto (Meiji Pharmaceutical Univ.)

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Characterization of stress induced cell wall deficient bacterial cells

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