

### W13 Pathogenicity switches driven by genomic mutation and recombination

Saturday, March 18 15:30–17:30  
Room 4 (408)

Conveners: Kohei Ogura (Kanazawa University)  
Norihiko Takemoto (National Center of Global Health and Medicine)

#### W13-1

##### Mechanism of hyper-virulent mutation of *Streptococcus pyogenes*

○Norihiko Takemoto<sup>1</sup>, Noriko Iwamoto<sup>2</sup>, Makoto Inada<sup>2</sup>, Hidetoshi Nomoto<sup>2</sup>, Ataru Moriya<sup>3</sup>, Kazuhisa Mezaki<sup>3</sup>, Masami Kurokawa<sup>3</sup> (<sup>1</sup>Dept. Infect. Dis., NCGM, <sup>2</sup>DCC, NCGM, <sup>3</sup>Clinical Laboratory, NCGM)

#### W13-2

##### Pathogenicity analysis of *Acinetobacter baumannii* experimentally evolved to mimic VAP pathology

○Go Kamoshida (Dept. Microbiol. and Infect. Cont. Sci. Kyoto Pharm. Univ.)

#### W13-3

##### Pathogenic regulation and host adaptation mechanism of *Helicobacter pylori* by phase variation

○Hitomi Mimuro (RCGLID, Oita Univ.)

#### W13-4

##### Development of Bacterial Coexistence Study—Toward the pump inhibitors which suppress pathogenicity—

○Seiji Yamasaki<sup>1,2,3</sup> (<sup>1</sup>Dept. Bact. Coexist., Inst. Adv. Co-Creat. Stud., Osaka Univ., <sup>2</sup>Dept. Biomol. Sci. Regul., SANKEN, Osaka Univ., <sup>3</sup>Dept. Cell Biol., Grad. Sch. Pharm. Sci., Osaka Univ.)

#### W13-5

##### Sporulation-specific gene rearrangement in bacteria

○Kimihiko Abe<sup>1</sup>, Tsutomu Sato<sup>2</sup> (<sup>1</sup>Dept. Bacteriology I, NIID, <sup>2</sup>Hosei Univ.)

#### W13-6

##### Pathogenicity switch of *Staphylococcus caprae* colonized on human skins

○Kohei Ogura<sup>1</sup>, Hiroka Furuya<sup>2</sup>, Natsuki Takahashi<sup>1</sup>, Shigefumi Okamoto<sup>1,2</sup>, Kazuhiro Ogai<sup>3</sup>, Junko Sugama<sup>4</sup> (<sup>1</sup>Front. Sci. Init., Kanazawa Univ., <sup>2</sup>Dept. Clinic. Lab. Sci., Inst. Med, Pharm, Health Sci., Kanazawa Univ., <sup>3</sup>Al Cent., Inst. Med, Pharm, Health Sci., Kanazawa Univ., <sup>4</sup>Res. Cent. Implement. Nurs. Sci. Init., Research Prom. Headquat., Fujita Health Univ.)

### Poster (P)

#### 1. Taxonomy / Epidemiology / Infectious diseases -a. Phylogenetics, taxonomy and strain typing

##### P1-001/W3-4

##### Four new microbes isolated from feces of Parkinson's disease patients

○Kyohei Sekiguchi<sup>1</sup>, Tomonari Hamaguchi<sup>3</sup>, Mikako Ito<sup>3</sup>, Hiroshi Nishiwaki<sup>3</sup>, Jun Ueyama<sup>2</sup>, Kinji Ohno<sup>3</sup>, Masaaki Hirayama<sup>2</sup> (<sup>1</sup>Dept. Comprehensive Health Sci., Sch. Med., Nagoya Univ., <sup>2</sup>Dept. Omics Medical Sci., Sch. Med., Nagoya Univ., <sup>3</sup>Dev. Neurogenetics., Sch. Med., Nagoya Univ.)

##### P1-002/W3-1

##### Identification of *Vibrio parahaemolyticus* pandemic marker based on whole-genome sequencing

○Masatomo Morita<sup>1</sup>, Toshio Kodama<sup>2</sup>, Kazuhisa Okada<sup>3</sup>, Hidemasa Izumiya<sup>1</sup>, Eiji Arakawa<sup>1</sup>, Tetsuya Iida<sup>3</sup>, Yukihiro Akeda<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. I, NIID., <sup>2</sup>Inst. Trop. Med., Nagasaki Univ., <sup>3</sup>RIMD, Osaka Univ.)

##### P1-003/W3-8

##### Genomic comparison of Enterotoxigenic *Escherichia coli* and discovery of novel pathogenic plasmids

○Daichi Morita<sup>1</sup>, Asuka Takeda<sup>1</sup>, Miwako Yamamoto<sup>2</sup>, Miyuki Kanda<sup>1</sup>, Yuki Yamamoto<sup>1</sup>, Takanori Kumagai<sup>1</sup>, Hidetoshi Tahara<sup>1</sup>, Fumito Maruyama<sup>3</sup>, Teruo Kuroda<sup>1</sup> (<sup>1</sup>Grad. Sch. Bio. Heal. Sci., Hiroshima Univ., <sup>2</sup>Hiroshima City Inst. of Public Heal., <sup>3</sup>The IDEC Institute, Hiroshima Univ.)

##### P1-004/W3-5

##### Database construction of streptococcal toxic shock syndrome-causing bacteria

○Tohru Akiyama<sup>1</sup>, Rumi Okuno<sup>2</sup>, Masaya Yamaguchi<sup>3</sup>, Yujiro Hirose<sup>3</sup>, Masayuki Oono<sup>3</sup>, Tadayoshi Ikebe<sup>4</sup> (<sup>1</sup>Nat. Cent. Global Health Med., <sup>2</sup>Tokyo Metro. Inst. Pub. Heal., <sup>3</sup>Osaka Univ. Grad. Sch. Dentis., <sup>4</sup>Nat. Inst. Infect. Dis.)

##### P1-005

##### Genome-based, phenotypic and chemotaxonomic classification of *Faecalibacterium* strains

○Mitsuo Sakamoto<sup>1</sup>, Naomi Sakurai<sup>1</sup>, Hiroki Tanno<sup>2</sup>, Takao Iino<sup>1</sup>, Moriya Ohkuma<sup>1</sup>, Akihito Endo<sup>2,3</sup> (<sup>1</sup>RIKEN BRC-JCM, <sup>2</sup>Dept. Food, Aroma Cosmet. Chem., Facult. Bioindustry, Tokyo Univ. Agric., <sup>3</sup>Dept. Nutr. Sci. Food Saf., Facult. Appl. Biosci., Tokyo Univ. Agric.)

##### P1-006

##### *Sellimonas catena* sp. nov., isolated from human feces

○Atsushi Hisatomi, Moriya Ohkuma, Mitsuo Sakamoto (RIKEN BRC-JCM)

**P1-007****Genome analysis of a *Clostridium perfringens* type E strain from a calf with hind limb paralysis**

○Takashi Mada<sup>1</sup>, Yo Goto<sup>2</sup>, Masahiko Kumagai<sup>3</sup>, Hiroaki Sakai<sup>3</sup>, Hiroyuki Kanamori<sup>4</sup>, Daisuke Takamatsu<sup>1,5</sup> (<sup>1</sup>Anim. Infect. Res. Div., Natl. Inst. Anim. Hlth., NARO, <sup>2</sup>Sendai LHSC, Miyagi Pref, <sup>3</sup>Bioinfo. Unit., Adv. Anal. Res. Ctr., NARO, <sup>4</sup>Genome Breed. Sprt. Ofce., Inst. Crop Sci., NARO, <sup>5</sup>Utd. Grad. Sch. Vet. Sci., Gifu Univ.)

**P1-008****Estimation of bacterial strains by restriction enzyme fragment analysis**

○Saki Tawata, Itaru Hirai (Lab, Microbiol., Sch. Health. Sci., Univ. The Ryukyus)

**P1-009****Genetic analysis of *E. coli* carrying *astA* isolated mainly from food poisoning cases**

○Yuka Yamazaki, Satomi Kando, Rie Doi, Shinichi Shimada, Kazumi Narisawa (Div. Food Microbiol., Saitama Prefect. Instit. Pub. Heal.)

**P1-010****ORF-based phylogenetic analysis of *Enterobacter hormaechei* using Oxford Nanopore sequencing**

○Kengo Hayashi<sup>1</sup>, Yohei Doi<sup>1,2,3</sup>, Masahiro Suzuki<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., Fujita Health Univ., <sup>2</sup>Dept. Infect. Dis., Sch. Med., Fujita Health Univ., <sup>3</sup>Div. Infect. Dis., Sch. Med., Pittsburgh Univ.)

**P1-011****Characterization of the upstream genetic structure of antimicrobial resistance gene**

○Nobuyoshi Yagi, Saki Tawata, Itaru Hirai (Dept. Microbiol., Sch. Health. Sci., Univ. Ryukyus)

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**1. Taxonomy / Epidemiology / Infectious diseases**  
**-b. Epidemiology and molecular epidemiology**

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**P1-012****Study on inapparent infection of *Vibrio cholerae* O1 in Kolkata, India**

○Keinosuke Okamoto<sup>1,2</sup>, Eizo Takahashi<sup>1,3</sup>, Shin-ichi Miyoshi<sup>1</sup>, Daisuke Motooka<sup>2</sup>, Shota Nakamura<sup>2</sup>, Tetsuya Iida<sup>2</sup> (<sup>1</sup>Colla. Res. Cent. Infect. Dis. Ind., Okayama Univ., <sup>2</sup>Res. Inst. Micro. Dis., Osaka Univ., <sup>3</sup>Heal. Pharm., Yokohama Pharm. Univ.)

**P1-013****PCR-based ORF typing of Methicillin-resistant *Staphylococcus* isolates from medical school students**

○Hinako Kaneko<sup>1</sup>, Satoshi Nishida<sup>1</sup>, Shigeru Nagakawa<sup>1</sup>, Takane Ueda<sup>1</sup>, Yoshinori Sato<sup>1</sup>, Yasuo Ono<sup>1,2</sup>, Yusuke Yoshino<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ., <sup>2</sup>Faculty Health Med. Sci., Teikyo Heisei Univ.)

**P1-014****The role of phages in the population shift of *Salmonella* Mbandaka to Lubbock observed in cattle**

○Naomi Ohta<sup>1,3</sup>, Gizem Levent<sup>2,3</sup>, Abbey Korn<sup>3</sup>, Henk den Bakker<sup>4</sup>, Jason Gill<sup>3</sup>, Guy Loneragan<sup>2</sup>, Marie Bugarel<sup>2</sup>, Morgan Scott<sup>3</sup>, Javier Vinasco<sup>3</sup>, Keri Norman<sup>5</sup> (<sup>1</sup>Fac. Vet. Med., Okayama Univ. Sci., <sup>2</sup>Sch. Vet. Med., Texas Tech Univ., <sup>3</sup>Dept. Vet. Path., Texas A&M Univ., <sup>4</sup>Dept. Food. Sci., Univ. Georgia, <sup>5</sup>Dept. Vet. Int. Biosci., Texas A&M Univ.)

**P1-015****Molecular epidemiology of *Shigella sonnei* isolated from Tokyo, Japan**

○Ko Murakami, Maho Kawamura, Asuka Ono, Noriko Konishi, Keiko Yamanashi, Kotonu Wada, Keiko Yokoyama, Kenji Sadamasu (Dept. Microbiol., Tokyo Metro. Inst. Pub. Health)

**P1-016****Genomic characterization of Japanese meningococcal strains isolated from 2003 to 2020 in Japan**

○Hideyuki Takahashi<sup>1</sup>, Masatomo Morita<sup>1</sup>, Hajime Kamiya<sup>2</sup>, Munehisa Fukusumi<sup>3</sup>, Tomimasa Sunagawa<sup>3</sup>, Haruna Miwa<sup>2</sup>, Yukihiro Akeda<sup>1</sup>, Ken Shimuta<sup>1</sup>, Makoto Ohnishi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. 1, Nat. Inst. Infect. Dis., <sup>2</sup>Infect. Dis. Surveil. Cent., Nat. Inst. Infect. Dis., <sup>3</sup>Cent. Field Epi. Int. Tes. Prof. Dev., Nat. Inst. Infect. Dis.)

**P1-017****Drug susceptibility and *penA* diversity of *Neisseria gonorrhoeae* isolated in Okinawa in 2020-2021**

○Hiroshi Nakao<sup>1</sup>, Takahiro Tamayama<sup>1</sup>, Hidenao Kinjo<sup>1</sup>, Toshiaki Nakada<sup>1</sup>, Tominobu Takara<sup>1</sup>, Shu-ichi Nakayama<sup>3</sup> (<sup>1</sup>Lab. Mol. Genetics, Sch. Health Sci., Univ. Ryukyus, <sup>2</sup>Lifestyle Relat. Dis. Med. Ctr., Naha City Med. Assoc., <sup>3</sup>Dept. Bact. 1., Natl. Inst. Infec. Dis.)

**P1-018****Enterococcal linear plasmids adapt to *E. faecium* and spread within multidrug-resistant clades**

○Yusuke Hashimoto<sup>1</sup>, Masato Suzuki<sup>2</sup>, Takahiro Nomura<sup>1</sup>, Jun Kurushima<sup>1</sup>, Hidetada Hirakawa<sup>1</sup>, Koichi Tanimoto<sup>3</sup>, Haruyoshi Tomita<sup>1,3</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Gunma Univ., <sup>2</sup>Antimicrobial Resistance Research Center, National Institute of Infectious Diseases, <sup>3</sup>Lab. Bacteriol. Drug Resist., Grad. Sch. Med., Gunma Univ.)

**1. Taxonomy / Epidemiology / Infectious diseases**  
**-c. Isolation and characterization of clinical isolates**

**P1-019**

**An interlaboratory study on efficient detection of *Escherichia albertii* in food**

○Sakura Arai<sup>1</sup>, Naoto Takahashi<sup>2</sup>, Yuki Tokoi<sup>3</sup>, Akihito Kobayashi<sup>4</sup>, Norihisa Matsunaga<sup>5</sup>, Takuya Yamanaka<sup>6</sup>, Takayuki Konno<sup>7</sup>, Rie Doi<sup>8</sup>, Dai Saiki<sup>9</sup>, Satoko Yamaya<sup>10</sup>, Yuka Kojima<sup>11</sup>, Keita Yanagimoto<sup>12</sup>, Shouhei Hirose<sup>1</sup>, Yukiko Kudo<sup>1</sup> (<sup>1</sup>Div. Microbiol., Natl. Inst. Health Sci., <sup>2</sup>Shizuoka City Inst. Env. Sci. Public Health, <sup>3</sup>Utsunomiya City Inst. Public Health & Env., <sup>4</sup>Mie Pref. Hlth & Environ. Res. Inst., <sup>5</sup>Fukuoka City Inst. Health and Env., <sup>6</sup>Iwate Pref. Res. Inst. Env. Sci. and Public Health, <sup>7</sup>Akita Pref. Res. Ctr. Public Health and Env., <sup>8</sup>Saitama Inst. Public Health, <sup>9</sup>Tokyo Metropol. Inst. Public Health, <sup>10</sup>Miyagi Pref. Inst. Public Health and Env., <sup>11</sup>Kawasaki City Inst. for Public Health, <sup>12</sup>Yamanashi Inst. Public Health Environ.)

**P1-020**

**Analysis of hemolytic factor in periodontal disease-associated bacterium, *Eikenella corrodens***

○Ryo Ogawa<sup>1</sup>, Yuko Shiramasa<sup>1</sup>, Hiroyuki Azakami<sup>2</sup> (<sup>1</sup>Dept. Biol. Chem., Fac. Agr., Yamaguchi Univ., <sup>2</sup>Res. Center Thermotolerant Microb. Ressources, Yamaguchi Univ.)

**P1-021**

**Analysis of antimicrobial susceptibility and drug resistance genes of Enterococci**

○Ayumi Fujii<sup>1,2</sup>, Miki Matsuo<sup>1</sup>, Kanako Masuda<sup>1</sup>, Junzo Hisatsune<sup>3</sup>, Kayoko Tadera<sup>4</sup>, Seiya Kashiyama<sup>4</sup>, Michiya Yokozaki<sup>4</sup>, Tomonao Aikawa<sup>2</sup>, Hiroki Ohge<sup>5</sup>, Hitoshi Komatsuzawa<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>2</sup>Dept. Oral and Maxillofacial Surgery., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>3</sup>Antimicrobial Resistance Research Ctr., National Institute of Infectious Diseases, <sup>4</sup>Div. Lab. Med., Hiroshima Univ. Hosp., <sup>5</sup>Dept. Infect. Dis., Hiroshima Univ. Hosp.)

**P1-022**

**Isolation and characterization of drug-resistant bacteria from nasal and oral cavities**

○Tomoki Kawayanagi<sup>1,2</sup>, Miki Matsuo<sup>1</sup>, Mi Nguyen Tra Le<sup>1</sup>, Toru Takeshita<sup>3</sup>, Junzo Hisatsune<sup>5</sup>, Satoru Kusaka<sup>4</sup>, Ryota Nomura<sup>4</sup>, Hideki Shiba<sup>2</sup>, Motoyuki Sugai<sup>5</sup>, Hitoshi Komatsuzawa<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>2</sup>Dept. Biological Endodont., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>3</sup>Sec. Preventive & Public Health Dentist., Div. Oral Health., Growth and Develop., Fac. Dent. Sci., Kyushu Univ., <sup>4</sup>Dept. Pediatric Dentist., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>5</sup>Antimicrobial Resistance Research Ctr., National Institute of Infectious Diseases)

**P1-023**

**Prevalence and characterization of *Escherichia fergusonii* isolated from farm animals in Japan**

○Anna Momoki<sup>1</sup>, Yukino Tamamura<sup>1</sup>, Nobuo Arai<sup>1</sup>, Taketoshi Iwata<sup>1</sup>, Ayako Watanabe<sup>1</sup>, Masahiro Kusumoto<sup>1,2</sup> (<sup>1</sup>Natl. Inst. Anim. Health, NARO., <sup>2</sup>Grad. Sch. Vet. Sci., Osaka Metro. Univ.)

**1. Taxonomy / Epidemiology / Infectious diseases**  
**-d. Methods for detection, identification, and diagnosis**

**P1-024/W3-6**

**O antigen identification by MALDI-MS**

○Shogo Urakami, Hiroshi Hinou (Grad. Sch. Life. Sci., Hokkaido Univ.)

**P1-025/W3-7**

**CRISPR-Cas12a system for carbapenemase gene detection of multidrug-resistant *Acinetobacter***

○Misaki Koga<sup>1</sup>, Satoshi Nishida<sup>1</sup>, Shigeru Nagakawa<sup>1</sup>, Takane Ueda<sup>1</sup>, Yoshinori Sato<sup>1</sup>, Yasuo Ono<sup>1,2</sup>, Yusuke Yoshino<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ., <sup>2</sup>Fac. Health. Med. Sci. Teikyo Heisei Univ.)

**P1-026/W3-2**

**COPMAN: A method for automated and sensitive detection of DNA/RNA of various pathogens in wastewater**

○Yuka Katayama<sup>1</sup>, Shin Hayase<sup>1</sup>, Yoshinori Ando<sup>1</sup>, Tomohiro Kuroita<sup>1,2</sup>, Kazuya Okada<sup>1</sup>, Ryo Iwamoto<sup>1,2</sup>, Toru Yanagimoto<sup>1</sup>, Tomohiko Okuda<sup>1</sup>, Masaaki Kitajima<sup>3</sup>, Yusaku Masago<sup>1</sup> (<sup>1</sup>Shionogi & Co., Ltd., <sup>2</sup>AdvanSentinel Inc., <sup>3</sup>Fac. Eng., Hokkaido Univ.)

**P1-027**

**The world's first simultaneous diagnostic approach of *H. suis* and *H. pylori* infection**

○Hidenori Matsui<sup>1,2</sup>, Emiko Rimbara<sup>1</sup>, Sae Aoki<sup>1</sup>, Keigo Shibayama<sup>2</sup>, Masato Suzuki<sup>3</sup> (<sup>1</sup>Dept. Bacteriology II, National Institute of Infectious Diseases (NIID), <sup>2</sup>Dept. Bacteriology, Nagoya Univ. Grad. Sch. Medicine, <sup>3</sup>Antimicrobial Research Center, National Institute of Infectious Diseases (NIID))

**P1-028**

**A new rapid method: Loop-Mediated Isothermal Amplification Assay for detecting metallo  $\beta$  lactamase**

○Jun Sakai<sup>1</sup>, Takahiro Iijima<sup>2</sup>, Dai Kanamori<sup>2</sup>, Akihiro Nakamura<sup>2</sup>, Takashi Ogihara<sup>2</sup>, Tomonori Hoshino<sup>2</sup>, Shigefumi Maesaki<sup>1</sup>, Mitsuko Seki<sup>2</sup> (<sup>1</sup>Dept. Infect. and Infect. Cont., Saitama Med. Univ. Hosp., <sup>2</sup>Dept. Dent. pharm., Meikai Univ.)

## P1-029

### Breath omics for infectious diseases

○Seiryō Ogata<sup>1</sup>, Tomoaki Ida<sup>1</sup>, Masanobu Morita<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Shohei Murakami<sup>2</sup>, Fan-Yan Wei<sup>3</sup>, Hozumi Motohashi<sup>2</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., <sup>2</sup>Dept. Gene Exp. Regul., IDAC, Tohoku Univ., <sup>3</sup>Dept. Modomics Biol. Med., IDAC, Tohoku Univ.)

## P1-030

### Diagnosis of tuberculosis and prediction of onset by antibody detection using native antigen

○Tomoya Yamazaki<sup>1</sup>, Satoshi Ishikawa<sup>1,2</sup>, Toshiki Tamura<sup>3</sup>, Yumiko Tsukamoto<sup>3</sup>, Desak Nyoman<sup>1</sup>, Yutaka Yoshida<sup>1</sup>, Yuriko Ozeki<sup>1</sup>, Akihito Nishiyama<sup>1</sup>, Yoshitaka Tateishi<sup>1</sup>, Sohkiichi Matsumoto<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med., Niigata Univ., <sup>2</sup>Fukuyama Zoo, <sup>3</sup>Leprosy Research Center, NIID)

## P1-031

### Development of a real-time PCR assay discriminating EIEC from *Shigella* spp., and its evaluation

○Junko Isobe<sup>1</sup>, Keiko Kimata<sup>1</sup>, Jun-ichi Kanatani<sup>1</sup>, Sunao Iyoda<sup>2</sup>, Kazunori Oishi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Toyama Inst. Health, <sup>2</sup>Dept. Bacteriol. 1, Natl. Inst. Infect. Dis)

## 1. Taxonomy / Epidemiology / Infectious diseases

### -e. Others

## P1-032/W3-3

### Longitudinal alterations of the gut microbiota and mycobiota on COVID-19 severity

○Daisuke Motooka<sup>1</sup>, Yuichi Maeda<sup>2,3</sup>, Hiroya Oki<sup>1</sup>, Kentaro Tanaka<sup>1</sup>, Eri Igashira<sup>3</sup>, Haruhiko Hirata<sup>3</sup>, Hiroshi Kida<sup>4</sup>, Atsushi Kumanogoh<sup>3</sup>, Shota Nakamura<sup>1</sup>, Kiyoshi Takeda<sup>2</sup> (<sup>1</sup>Dept. Infect. Metagenomics, RIMD, Osaka Univ., <sup>2</sup>Lab. Immune Regulation, Grad. Sch. Medicine, Osaka Univ., <sup>3</sup>Dept. Resp. Med., Grad. Sch. Medicine, Osaka Univ., <sup>4</sup>National Hospital Organization Osaka Toneyama Medical Center)

## P1-033

### Importance of succession and provision of phenotypic test methods for identification of pathogen

○Michio Tanaka, Yumi Hattori, Tetsuya Iida (Pathogenic Microbes Repository Unit, Research Institute for Microbial Diseases, Osaka Univ.)

## 2. Ecology

### -a. Ecology, symbiosis and environmental microbes

## P1-034

### Prevalence of plasmid-mediated quinolone resistance genes in *Salmonella* spp. from canals of Thailand

○Jirachaya Toyting<sup>1</sup>, Fuangfa Utrarachkij<sup>2</sup>, Neunghatai Supha<sup>2</sup>, Yuwanda Thongpanich<sup>2</sup>, Chie Nakajima<sup>1,3</sup>, Yasuhiko Suzuki<sup>1,3</sup> (<sup>1</sup>Div. Biores., Hokkaido Univ. Int. Inst. Zoonosi. Contr., <sup>2</sup>Dept. Microbiol., Fac. Publ. Health. Mahidol Univ., <sup>3</sup>Glob. Inst. Col. Res. Edu., Hokkaido Univ.)

## P1-035

### Suspension of soil bacteria in the air due to changes in environmental factors: A field work

○Saaya Mori, Torahiko Okubo, Hiroyuki Yamaguchi (Fac. Health Sci., Hokkaido Univ.)

## P1-036

### Evaluation of predation by protists *Paramecium* on antimicrobial resistant bacteria

○Yuka Tanaka<sup>1</sup>, Mio Tsurui<sup>1</sup>, Yuki Kobayashi<sup>1</sup>, Kenta Watanabe<sup>2</sup>, Masahisa Watarai<sup>2</sup> (<sup>1</sup>Grad. Sch. Med. Sci., Yamaguchi Univ., <sup>2</sup>Grad. Sch. Vet. Sci., Yamaguchi Univ.)

## P1-037

### Inhibition of *Salmonella* colonization by intestinal bacteria in edible crickets

○Shuma Tsuji, Kazuyoshi Gotoh, Osamu Matsushita (Dept. Microbiol., Grad. Sch. Med. Dent. Pharm., Okayama Univ.)

## P1-038

### Diversity of innate fluorescent signatures in biofilm

○Kyosuke Takabe<sup>1</sup>, Nobuhiko Nomura<sup>1,2</sup>, Yutaka Yawata<sup>1,2</sup> (<sup>1</sup>Life and Env. Sci., Univ. of Tsukuba, <sup>2</sup>Microbiology Research Center for Sustainability, Univ. of Tsukuba)

## 2. Ecology -b. Microbiota

## P1-039

### Bacteria sharing between subgingival plaque and tongue coating from severe periodontitis patients

○Jiale Ma, Shinya Kageyama, Toru Takeshita, Mikari Asakawa, Yoshihisa Yamashita (Sect. Prev. Public Health Dent., Grad. Sch. Dent., Kyushu Univ.)

## P1-040

### Gut microbes cause constipation

○Tomonari Hamaguchi<sup>1,2,3</sup>, Gibo Noriaki<sup>2</sup>, Hiroshi Nishiwaki<sup>1</sup>, Mikako Ito<sup>1</sup>, Masaaki Hirayama<sup>3</sup>, Kinji Ohno<sup>1</sup> (<sup>1</sup>Div. Neurogenetics, Sch. Med., Nagoya Univ., <sup>2</sup>Dept. Gastroenterology and Hepatology, Sch. Med., Nagoya Univ., <sup>3</sup>Dept. Pathophys. Lab. Sciences, Sch. Med., Nagoya Univ.)

**P1-041****Characterization of endometrial microbiota associated with low fertility in dairy cows**

Takuya Yagisawa<sup>1</sup>, ○Jumpei Uchiyama<sup>2</sup>, Iyo Uchiyama<sup>2</sup>, Shun Ando<sup>1</sup>, Osamu Ichii<sup>3</sup>, Hironobu Murakami<sup>4</sup>, Osamu Matsushita<sup>2</sup>, Seiji Katagiri<sup>3</sup> (<sup>1</sup>Hokkaido Agri. Mut. Aid Asso., <sup>2</sup>Okayama Univ., <sup>3</sup>Hokkaido Univ., <sup>4</sup>Azabu Univ.)

**P1-042****Effect of ozone nanobubble water on oral microflora**

○Masanori Saito, Noriko Shinozaki-Kuwahara, Tomomi Hashizume-Takizawa, Hidenobu Senpuku (Dept. Microbiol. Immunol., Sch. Dent. Matsudo, Nihon Univ.)

**P1-043****Analysis of Gastric microbiota in autoimmune gastritis patients**

○Takako Osaki<sup>1</sup>, Fuhito Hojo<sup>2</sup>, Hideo Yonezawa<sup>3</sup>, Kentaro Oka<sup>4</sup>, Motomichi Takahashi<sup>4</sup>, Tomoko Hanawa<sup>1</sup>, Jiro Mitobe<sup>1</sup>, Shigeru Kamiya<sup>1</sup> (<sup>1</sup>Dept. Infect. Dis., Kyorin Univ. Sch. Med., <sup>2</sup>Institute of Laboratory Animals, Grad. Sch. Med, Kyorin Univ., <sup>3</sup>Dept. Microbiol., Tokyo Dental Col., <sup>4</sup>Miyarisan Pharmaceutical Co., Ltd.)

**P1-044****Menstrual cycle-dependent changes of *Prevotella* and *Streptococcus* in saliva of healthy women**

○Ayaka Yamazaki<sup>1</sup>, Kohei Ogura<sup>1</sup>, Kana Minami<sup>2</sup>, Kazuhiro Ogai<sup>3</sup>, Shigefumi Okamoto<sup>1,4</sup>, Kanae Mukai<sup>5</sup> (<sup>1</sup>Front. Sci. Init., Kanazawa Univ., <sup>2</sup>Dept. Health Develop. Nurs, Inst. Med, Pharm, Health Sci., Kanazawa Univ., <sup>3</sup>AI Cent., Inst. Med, Pharm, Health Sci., Kanazawa Univ., <sup>4</sup>Dept. Clinic. Lab. Sci., Inst. Med, Pharm, Health Sci., Kanazawa Univ., <sup>5</sup>Dept. Clinic. Nurs., Inst. Med, Pharm, Health Sci., Kanazawa Univ.)

**P1-045****Evaluation of the effects of microplastic ingestion on gut microbiota in a NASH medaka model**

○Hanako Okabe<sup>1</sup>, Mai Yamamoto<sup>2</sup>, Joe Sakamoto<sup>3,4</sup>, Yasuhiro Kamei<sup>3</sup>, Shigeki Kamitani<sup>1,2</sup> (<sup>1</sup>Dept. Nutr., Grad. Sch. Hum Life & Ecol., Omu, <sup>2</sup>Div. Clin. Nutr., Sch. Comp. Rehabil., OPU, <sup>3</sup>Trans-Scale Biol Cent, NIBB, <sup>4</sup>Biophotonics, ExCELLS)

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## 2. Ecology -c. Growth and culture conditions

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**P1-046/W4-8****Analysis of gut bacterial colonization and biofilm formation in an gut mucus layer mimetic system**

○Keisuke Nomura<sup>1</sup>, Nobuhiko Nomura<sup>2,3</sup>, Nozomu Obana<sup>4,5</sup>, Andrew Utada<sup>2,3</sup> (<sup>1</sup>Dept. Agro-biol. Resour. Sci., Tsukuba Univ. Grad. Sch., <sup>2</sup>Dept. Life Environ., Tsukuba Univ., <sup>3</sup>Microbiol. Res. Ctr. Sustainability, <sup>4</sup>Dept. Med., Tsukuba Univ., <sup>5</sup>Transborder Med. Res. Ctr.)

**P1-047****Identification of novel growth factors for *Porphyromonas gingivalis***

○Keitarou Saiki, Yumiko Urano-Tashiro, Yuki Yamanaka, Yukihiro Takahashi (Dept. Microbiol., Nippon Dent. Univ. Sch. Life Dent. Tokyo)

**P1-048****Effect of quorum sensing on autoagglutination in periodontal disease-associated bacterium**

○Syungo Kiyohiro<sup>1</sup>, Naoko Sakaguchi<sup>2</sup>, Hiroyuki Azakami<sup>3</sup> (<sup>1</sup>Dept. Biol. Chem., Fac. Agr., Yamaguchi Univ., <sup>2</sup>Grad. Sch. Sci. Technol. Innov., Yamaguchi Univ., <sup>3</sup>Res. Center Thermotolerant Microb. Resources, Yamaguchi Univ.)

**P1-049****Environmental factors affecting the number of colony-forming bacteria floating in public space**

○Hiroyuki Yamaguchi<sup>1</sup>, Takako Osaki<sup>2</sup>, Torahiko Okubo<sup>1</sup> (<sup>1</sup>Fac. Health Science, Hokkaido Univ., <sup>2</sup>Dept. Infect. Dis., Sch. Med., Kyorin Univ.)

**P1-050****Effect of handrails warmed to human skin on the survival of *Escherichia coli***

○Ayano Konno, Torahiko Okubo, Hiroyuki Yamaguchi (Fac. Health Sc., Hokkaido Univ.)

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## 2. Ecology -d. Others

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**P1-051****Hypoxic adaptation in nontuberculous mycobacteria implicated from the essential gene profiles**

○Yoshitaka Tateishi, Yuriko Ozeki, Akihito Nishiyama, Sohkiichi Matsumoto (Dept. Bacteriol., Sch. Med., Niigata Univ.)

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## 3. Physiology / Structural biology

**-a. Metabolism, biosynthesis and metabolome****P1-052****Biochemical studies of *Mycobacterium tuberculosis* sulfide quinone oxidoreductase**

○Yuichi Matsuo<sup>1,2</sup>, Daniel Ken Inaoka<sup>2,3,4</sup>, Kiyoshi Kita<sup>2,4,5</sup> (<sup>1</sup>Dept. Health Sciences., Sch. Med., Kumamoto Univ., <sup>2</sup>Sch. Tropical Medicine and Global Health., Nagasaki Univ., <sup>3</sup>Dept. Molecular Infection Dynamics., Institute of Tropical Medicine., Nagasaki Univ., <sup>4</sup>Dept. Biomedical Chemistry., Grad. Sch. Medicine., The Univ. of Tokyo, <sup>5</sup>Dept. Host-Defense Biochemistry., Institute of Tropical Medicine., Nagasaki Univ.)

**P1-053****Discovery of supersulfide biosynthesis highly conserved among all organisms**

○Tomoaki Ida<sup>1</sup>, Minkyung Jung<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Masanobu Morita<sup>1</sup>, Seiryu Ogata<sup>1</sup>, Tsuyoshi Takata<sup>1</sup>, Yuka Unno<sup>1</sup>, Hozumi Motohashi<sup>2</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., <sup>2</sup>Dept. Gene Exp. Regulation, IDAC, Tohoku Univ.)

**P1-054****The usage of fructose as a novel energy source in oral *Veillonella***

○Izumi Mashima<sup>1</sup>, Futoshi Nakazawa<sup>2</sup>, Yusuke Kiyoura<sup>1</sup> (<sup>1</sup>Dept. Oral Med. Sci., Sch. Dent., Ohu Univ., <sup>2</sup>Dept. Oral Biol., Fac. Dent., Univ. Indonesia)

**P1-055****Supersulfide activation and host defence by NADPH oxidase and NO synthase**

○Minkyung Jung<sup>1</sup>, Tsuyoshi Takata<sup>1</sup>, Tomoaki Ida<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Masanobu Morita<sup>1</sup>, Yukihiro Tsuchiya<sup>2</sup>, Yasuo Watanabe<sup>2</sup>, Hozumi Motohashi<sup>3</sup>, Hideki Sumimoto<sup>4</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., <sup>2</sup>Dept. Pharm., Showa Pharm. Univ., <sup>3</sup>Dept. Gene Exp. Reg., IDAC, Tohoku Univ., <sup>4</sup>Dept. Biochem., Kyushu Univ., Grad. Sch. Med. Sci.)

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**3. Physiology / Structural biology -b. Motility**


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**P1-056****Measurement of helical-filamentous shaped motility of clinically isolated *Vibrio cholerae* O1**

○Jun Xu<sup>1</sup>, Keigo Abe<sup>2</sup>, Tetsu Yamashiro<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Univ. Ryukyus, <sup>2</sup>Dept. Appl. Phys., Grad. Sch. Eng., Tohoku Univ.)

**P1-057****Study on the effect of motility mutation against antibiotic resistance**

○Mio Uneme<sup>1</sup>, Kazuya Ishikawa<sup>2</sup>, Kazuyuki Furuta<sup>2</sup>, Chikara Kaito<sup>2</sup> (<sup>1</sup>Lab. Mol. Biol., Fac. Pharm., Okayama Univ., <sup>2</sup>Lab. Mol. Biol., Grad. Sch. Med. Dent. Pharm., Okayama Univ.)

**P1-058****HubP enhances the ATPase activity of the flagellar number regulator FlhG in *Vibrio alginolyticus***

Yuxi Hao<sup>1</sup>, Norihiro Takekawa<sup>2</sup>, Michio Homma<sup>1</sup>, ○Seiji Kojima<sup>1</sup> (<sup>1</sup>Dept. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., <sup>2</sup>Dept. Macromol. Sci., Grad. Sch. Sci., Osaka Univ.)

**3. Physiology / Structural biology****-c. Signal transduction (intracellular and intercellular)****P1-059****The T9SS cargo protein PorA binds to a sensor kinase PorY to regulate the T9SS gene expression**

○Momoko Ito<sup>1</sup>, Hideharu Yukitake<sup>1</sup>, Mikio Shoji<sup>1</sup>, Taku Fujiwara<sup>2</sup>, Koji Nakayama<sup>1</sup>, Mariko Naito<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Oral Infect., Grad. Sch. Bio. Sci., Nagasaki Univ., <sup>2</sup>Dept. Pediatric. Dent., Grad. Sch. Bio. Sci., Nagasaki Univ.)

**P1-060****Enhanced cyclic-di-AMP signaling in adherent-invasive *E. coli* (AIEC) isolated from Crohn's disease**

○Rika Tanaka<sup>1</sup>, Hitoshi Tsugawa<sup>2</sup>, Jin Imai<sup>3</sup>, Nobuhiko Kamada<sup>4</sup>, Katsuto Hozumi<sup>1</sup> (<sup>1</sup>Dept. Immunol., Div. Infect. Host Def., Tokai Univ. Sch. Med., <sup>2</sup>Dept. Transkingdom Signal., Div. Infect. Host Def., Tokai Univ. Sch. Med., <sup>3</sup>Dept. Clin. Health Sci., Tokai Univ. Sch. Med., <sup>4</sup>Dept. Internal Med., Div. Gastroenterol., Univ. of Michigan)

**P1-061****Functional analysis of chemoreceptors of *Clostridium* spp. by an *E. coli* reconstitution system**

○So-ichiro Nishiyama, Shohei Koike, Natsuki Kobayashi, Yui Miyakawa (Fac. App. Life Sci., Niigata Univ. Pharm. App. Life Sci.)

**P1-062****Fe(II)-dependent regulation of quorum sensing of *Ralstonia pseudosolanacearum* strain OE1-1**

○Sora Tateda<sup>1</sup>, Yuki Terazawa<sup>1</sup>, Akinori Kiba<sup>1</sup>, Kouhei Ohnishi<sup>1</sup>, Kenji Kai<sup>2</sup>, Yasufumi Hikichi<sup>1</sup>, Masayuki Tsuzuki<sup>1</sup> (<sup>1</sup>Fac. Agric. and Mar. Sci., Kochi Univ., <sup>2</sup>Grad. Sch. Agric., Osaka Met. Univ.)

**P1-063****Temperature regulation of the taurine chemoreceptor gene expression in *Vibrio cholerae***

○Sachika Sato<sup>1</sup>, Natsu Yamauchi<sup>2</sup>, Shiori Onogi<sup>2</sup>, Hirotaka Tajima<sup>1,3</sup>, Ikuro Kawagishi<sup>1,2,3</sup> (<sup>1</sup>Dept. Frontier Biosci., Hosei Univ., <sup>2</sup>Grad. Sch. Sci. Eng., Hosei Univ., <sup>3</sup>Res. Cen. Micro-Nano Tech., Hosei Univ.)

**P1-064****The flagellar motor regulator CheY is involved in cell differentiation of *Vibrio alginolyticus***

Karin Yamane<sup>1</sup>, ○Hirotaka Tajima<sup>2,3</sup>, Mayu Ito<sup>2</sup>, Masatoshi Nishikawa<sup>1,2</sup>, Ikuro Kawagishi<sup>1,2,3</sup> (<sup>1</sup>Grad. Sch. Sci. and Engin., Hosei Univ., <sup>2</sup>Fac. Biosci. and Appl. Chem., Hosei Univ., <sup>3</sup>Res. Cent. for Micro-Nano Tech., Hosei Univ.)

### 3. Physiology / Structural biology -d. Cell surface structure, membrane structures and cytoskeleton

#### P1-065

#### Assembly of MS ring in membrane by a fusion of *Vibrio* flagellar motor components, FliF and FliG

○Michio Homma<sup>1</sup>, Tatsuro Nishikino<sup>2</sup>, Kanji Takahashi<sup>3</sup>, Yuria Fukushima<sup>1</sup>, Yuxi Hao<sup>1</sup>, Hiroki Kajino<sup>1</sup>, Takayuki Uchihashi<sup>3</sup>, Seiji Kojima<sup>1</sup> (<sup>1</sup>Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., <sup>2</sup>Ins. Protein Res., Osaka Univ., <sup>3</sup>Div. Mat. Sci., Grad. Sch. Sci., Nagoya Univ.)

#### P1-066

#### High-speed AFM observation of the lysis process of bacterial cell by pneumococcal autolysin LytA

○Yumu Ota<sup>1</sup>, Hayato Yamashita<sup>1</sup>, Kotaro Higashi<sup>2</sup>, Masaya Yamaguchi<sup>2</sup>, Shigetada Kawabata<sup>2</sup>, Masayuki Abe<sup>1</sup> (<sup>1</sup>Grad. Sch. Eng. Sci., Osaka Univ., <sup>2</sup>Grad. Sch. Den., Osaka Univ.)

#### P1-067

#### Potential role of intact cell division on bacteriolysis by enterococcal plasmid-encoded Bac41

○Jun Kurushima, Haruyoshi Tomita (Dept. Bacteriol., Sch. Med., Gunma Univ.)

#### P1-068

#### FbpD, a fibronectin-binding protein of *Clostridium perfringens*, is one of a peptidoglycan hydrolase

○Kohei Morimoto<sup>1</sup>, Seiichi Katayama<sup>2</sup>, Yasuo Hitsumoto<sup>2</sup>, Nozomu Matsunaga<sup>2</sup> (<sup>1</sup>Dept. Life Sci., Grad. Sch. Sci., Okayama Univ. Sci., <sup>2</sup>Dept. Life Sci., Fac. Sci., Okayama Univ. Sci.)

#### P1-069

#### Function of the cell wall-binding domain of *Clostridium perfringens* autolysin

○Riyo Aono<sup>1</sup>, Nozomu Matsunaga<sup>2</sup>, Eiji Tamai<sup>3</sup>, Hirofumi Nariya<sup>4</sup>, Yasuo Hitsumoto<sup>2</sup>, Seiichi Katayama<sup>2</sup> (<sup>1</sup>Dept. Material Sci., Grad. Sch. Sci., Okayama Univ. of Sci., <sup>2</sup>Dept. Life Sci., Fac. Sci., Okayama Univ. of Sci., <sup>3</sup>Dept. Infect. Dis., Coll. of Pharm. Sci., Matsuyama Univ., <sup>4</sup>Fac. Human Life, Jumonji Univ.)

#### P1-070

#### Post-transcriptional regulation by RodZ protein essential for rod shape of bacilli. (4)

○Jiro Mitobe<sup>1</sup>, Naoki Sudo<sup>1</sup>, Hideo Yonezawa<sup>2</sup>, Takako Osaki<sup>1</sup> (<sup>1</sup>Dept. Infect. Dis., Sch. Med., Kyorin Univ., <sup>2</sup>Dept. Microbiol., Tokyo Dent. Col.)

### 3. Physiology / Structural biology -e. Secretion and transport

#### P1-071

#### The essential roles of Type IX secretion system in periodontal pathogen *Prevotella intermedia*

○Mariko Naito<sup>1</sup>, Mikio Shoji<sup>1</sup>, Keiko Sato<sup>2</sup> (<sup>1</sup>Dept. Microbiol. Oral Infect., Grad. Sch. Biomedical Sci., Nagasaki Univ., <sup>2</sup>Dept. Frontier Oral Sci., Grad. Sch. Biomedical Sci., Nagasaki Univ.)

#### P1-072

#### A new screening method for discovering anti-gram-negative agents by EBIS

○Takuya Shiota, Yukari Nakajima (Org. TT. Univ. of Miyazaki)

#### P1-073

#### Study of protein secretion mechanisms in *Porphyromonas gingivalis*

○Mikio Shoji<sup>1</sup>, Yuko Sasaki<sup>1</sup>, Takayuki Sueyoshi<sup>1</sup>, Satoshi Shibata<sup>2</sup>, Takehiro Matsuo<sup>1</sup>, Hideharu Yukitake<sup>1</sup>, Matthias Wolf<sup>3</sup>, Mariko Naito<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Oral Infect., Grad. Sch. Bio. Sci., Nagasaki Univ., <sup>2</sup>Div. Bacteriol. Dept. Microbiol. Immunol., Med., Tottori Univ., <sup>3</sup>Molecular Cryo-Electron Microscopy Unit, OIST)

### 3. Physiology / Structural biology -f. Others

#### P1-074

#### 3D reconstruction by electron tomography to ultrastructural analysis of SARS-CoV-2 particles

○Hong Wu, Yoshihiko Fujioka, Shoichi Sakaguchi, Youichi Suzuki, Takashi Nakano (Dept. Microbiol. & Infect. Cont., Fac. Med., Osaka Med. & Pharm. Univ.)

#### P1-075

#### Zinc tolerance caused by deletion of ribosomal protein genes in *Escherichia coli*

○Riko Shirakawa<sup>1</sup>, Tomoki Kosaki<sup>2</sup>, Kazuya Ishikawa<sup>1</sup>, Kazuyuki Furuta<sup>1</sup>, Chikara Kaito<sup>1</sup> (<sup>1</sup>Lab. Mol. Biol., Grad. Sch. Med. Dent. Pharm., Okayama Univ., <sup>2</sup>Lab. Mol. Biol., Fac. Pharm., Okayama Univ.)

#### P1-076

#### Analysis of the adaptation mechanism under acidic envelopment of *Mycobacterium avium*

○Takemasa Takii<sup>1,2</sup>, Saotomo Itoh<sup>2</sup>, Naoya Ohara<sup>3</sup>, Shinji Maeda<sup>4</sup>, Shigeaki Hida<sup>2</sup> (<sup>1</sup>Dept. Mycobac. Ref. Res., RIT, JATA, <sup>2</sup>Dep. Hygienic Chem., Grad. Sch. Pharm. Sci., Nagoya City Univ., <sup>3</sup>Dep. Oral Microbiol., Grad. Sch. Med. Denti. Pharm., Okayama Univ., <sup>4</sup>Sch. Pharm., Hokkaido Univ. Sci.)

**P1-077****Comparison of cell morphology between 6 species in genus *Mycobacteroides* examined with cryo-TEM**

○Hiroyuki Yamada<sup>1</sup>, Kinuyo Chikamatsu<sup>1</sup>, Akio Aono<sup>1</sup>, Kazuyoshi Murata<sup>2</sup>, Naoyuki Miyazaki<sup>3</sup>, Yoko Kayama<sup>4</sup>, Satoshi Mitarai<sup>1,5</sup> (<sup>1</sup>Dept. Mycobac. Ref. Res., RIT, JATA., <sup>2</sup>Div. Struct. Biol., NIPS, <sup>3</sup>Otsuka Pharma, <sup>4</sup>Terabase Inc., <sup>5</sup>Nagasaki Univ.)

**4. Genetics / Genomics / Biotechnology****-a. Genomics, bioinformatics and systems biology****P1-078/W4-3****Nucleoid structure of antibiotic-stressed *Escherichia coli***

○Miki Umetani<sup>1</sup>, Yuichi Wakamoto<sup>1,2,3</sup> (<sup>1</sup>Dept. Basic Sci., Grad. Sch. Arts and Sci., Univ. Tokyo, <sup>2</sup>Res. Ctr. Complex Syst. Biol., Univ. Tokyo, <sup>3</sup>UBI, Univ. Tokyo)

**P1-079/W4-7****Application of Mathematical Models Based on Genomic Data to Predict Tuberculosis Cluster Infection**

○Yoshihiko Tanimoto<sup>1</sup>, Kentaro Arikawa<sup>1</sup>, Riyo Fujiyama<sup>2</sup>, Ayako Ono<sup>2</sup>, Minami Onishi<sup>2</sup>, Aki Tamaru<sup>3</sup>, Kaori Yamamoto<sup>3</sup>, Shiomi Yoshida<sup>4</sup>, Kenichi Ogita<sup>5</sup>, Tomotada Iwamoto<sup>1</sup> (<sup>1</sup>Kobe Inst. Heal., <sup>2</sup>Pub. Heal. Mgmt. Ctr., Kobe City, <sup>3</sup>Osaka Inst. Pub. Heal., <sup>4</sup>NHO Kinki-chuo Chest Med. Ctr., <sup>5</sup>Hyogo Pref. Inst. Pub. Heal. Sci.)

**P1-080****Feature search for drug-resistant *E. coli* genome using machine learning**

○Masahiro Suzuki (Dept. Microbiol., Sch. Med., Fujita Health Univ.)

**P1-081****Population structure of CC119, a hidden STEC lineage, and glycolytic phenotypes of CC119 strains**

○Keiji Nakamura<sup>1</sup>, Kazuko Seto<sup>2</sup>, Ken-ichi Lee<sup>3</sup>, Yasuhiro Gotoh<sup>1</sup>, Sunao Iyoda<sup>3</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ., <sup>2</sup>Osaka Inst. Pub. Health, <sup>3</sup>Dept. Bac. I., Inst. Infect. Dis.)

**P1-082****Global population structure of STEC O157:H7 clade 8 and the variation of Stx2 and Stx2a phages**

○Tatsuya Miyata<sup>1</sup>, Itsuki Taniguchi<sup>1</sup>, Keiji Nakamura<sup>1</sup>, Yasuhiro Gotoh<sup>1</sup>, Shinichiro Hirai<sup>2,4</sup>, Eiji Yokoyama<sup>2</sup>, Makoto Ohnishi<sup>3</sup>, Sunao Iyoda<sup>3</sup>, Yoshitoshi Ogura<sup>1,5</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. Fac. Med. Sci, Kyushu Univ., <sup>2</sup>Div. Bacteriol., Chiba Prefect. Instit. Pub. Heal., <sup>3</sup>Dept. Bacteriol. I, NIID, <sup>4</sup>Dept. Infect. Dise. Risk Manag. Center, NIID, <sup>5</sup>Dept. Infect. Med., Kurume Univ. Sch. Med.)

**P1-083****GWAS approach identifies bacterial risk factors for cavitary MAC lung diseases**

○Hirokazu Yano<sup>1</sup>, Kentaro Arikawa<sup>2</sup>, Yukiko Nishiuchi<sup>3</sup>, Kana Misawa<sup>4</sup>, Tomoyasu Nishimura<sup>4</sup>, Atsushi Ota<sup>3</sup>, Fumito Maruyama<sup>3</sup>, Mari Miki<sup>5</sup>, Manabu Ato<sup>1</sup>, Naoki Hasegawa<sup>4</sup>, Hiroshi Kida<sup>5</sup>, Ho Namkoong<sup>4</sup>, Seigo Kitada<sup>5</sup>, Tomotada Iwamoto<sup>2</sup> (<sup>1</sup>NIID, <sup>2</sup>Kobe Inst. Health, <sup>3</sup>Hiroshima Univ. IDEC, <sup>4</sup>Keio Univ. Hosp., <sup>5</sup>NHO Osaka Toneyama Med. Cent.)

**4. Genetics / Genomics / Biotechnology****-b. Horizontal gene transfer, mobile genetic element and evolution****P1-084/W4-4****Natural transformation mediates transfer of SCCmec in *Staphylococcus aureus* biofilms**

○Mais Maree<sup>1</sup>, Thuy Le Thi Nguyen<sup>2</sup>, Ryosuke L. Ohniwa<sup>1</sup>, Masato Higashide<sup>3</sup>, Tarek Msadek<sup>4</sup>, Kazuya Morikawa<sup>1</sup> (<sup>1</sup>Fac. Med., Univ Tsukuba., <sup>2</sup>Biotechnology Centre of Ho Chi Minh City, <sup>3</sup>Kotobiken Medical Laboratories, Inc., <sup>4</sup>Institut Pasteur, Universite Paris Cite, CNRS UMR6047, Biology of Gram-Positive Pathogens, Dept. Microbiology)

**P1-085****CA-MRSA/J and infections (V): High-frequency mobilization system p32kb/pWtra with "hot-spot" *oriT***

○Tsai-Wen Wan<sup>1,2</sup>, Lee-Jene Teng<sup>2</sup>, Tatsuo Yamamoto<sup>1</sup> (<sup>1</sup>Dept. Epidemiol. Genomics Evol., Intl. Med. Rdu. Res. Center, <sup>2</sup>National Taiwan Univ., Col. Med.)

**P1-086****Genomic analysis of neurotoxin-converting phages of *Clostridium botulinum* types C and D**

○Yoshihiko Sakaguchi<sup>1</sup>, Akira Take<sup>1</sup>, Kazuyoshi Gotoh<sup>2</sup>, Yumiko Yamamoto<sup>2</sup>, Tomoko Kohda<sup>3</sup>, Masafumi Mukamoto<sup>3</sup>, Shunji Kozaki<sup>3</sup>, Shunji Hayashi<sup>1</sup>, Tetsuya Hayashi<sup>4</sup>, Keiji Oguma<sup>2</sup> (<sup>1</sup>Dept. Microbiol., Kitasato Univ. Sch. Med., <sup>2</sup>Dept. Bacteriol., Facul. Med., Dent. Pharm. Sci., Okayama Univ., <sup>3</sup>Grad. Sch. Vet. Sci., Osaka Metropolitan Univ., <sup>4</sup>Dept. Bacteriol., Facul. Med. Sci., Kyushu Univ.)

**P1-087****Factors that may produce phenotypic diversity of *Rodentibacter pneumotropicus***

○Fumio Ike<sup>1</sup>, Hiraku Sasaki<sup>2</sup>, Jumpei Uchiyama<sup>3</sup>, Atsushi Toyoda<sup>4</sup> (<sup>1</sup>Exp. Anim. Div., BRC, RIKEN, <sup>2</sup>Juntendo Univ., <sup>3</sup>Okayama Univ., <sup>4</sup>Nat. Inst. Genet.)



**4. Genetics / Genomics / Biotechnology****-c. Gene regulation and transcriptome analysis****P1-088/W4-1****Environmental adaptation through temperature-responsive gene regulation in *Clostridium perfringens***

○Ryosuke Fukuda<sup>1</sup>, Nozomu Obana<sup>2,3</sup>, Nobuhiko Nomura<sup>3,4</sup>  
 (<sup>1</sup>Grad. Agro Bio. Sci. Tech., Univ. Tsukuba, <sup>2</sup>TMRC, Fac. Medicine, Univ. Tsukuba, <sup>3</sup>MiCS, Univ. Tsukuba, <sup>4</sup>Fac. Life Environ. Sci., Univ. Tsukuba)

**P1-089****Enhanced resistance of EHEC to bactericidal substances by plasmid factor**

○Takeshi Shimizu<sup>1</sup>, Shin Suzuki<sup>1</sup>, Takashi Hamabata<sup>2</sup> (<sup>1</sup>Dept. Mol. Infectiol., Grad. Sch. Med., Chiba Univ, <sup>2</sup>Bacterial infection, Research Institute, NCGM)

**P1-090****ArcB/ArcA regulatory system modulates anaerobic biofilm formation of *Vibrio cholerae* through HapR**

○Jant Cres Caigoy, Tadashi Shimamoto, Toshi Shimamoto  
 (Program Food AgriLife Sci., Grad. Sch. Integr. Sci. Life, Hiroshima Univ.)

**P1-091****Drug Targeting and Validation of New Anti-Tuberculosis Drugs**

○Tomoki Kitahara<sup>1</sup>, Sohkiichi Matsumoto<sup>1</sup>, Yoshitaka Tateishi<sup>1</sup>, Akihito Nishiyama<sup>1</sup>, Yuriko Ozeki<sup>1</sup>, Yutaka Yoshida<sup>1</sup>, Shigetaru Mori<sup>2</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med. Niigata Univ., <sup>2</sup>Dept. Bacteriology 2., NIID)

**P1-092****Analysis of host cell recognition and response mechanisms of *Vibrio parahaemolyticus***

Saranporn Tandhavanant<sup>1</sup>, Hiroyuki Terashima<sup>2</sup>, Dhira Saraswati Anggramukti<sup>3</sup>, Hirotaka Hiyoshi<sup>2</sup>, Tetsuya Iida<sup>3</sup>, Shigeaki Matsuda<sup>3</sup>, ○Toshio Kodama<sup>2</sup> (<sup>1</sup>Dept. Trop. Med., Mahidol Univ., <sup>2</sup>Inst. Trop. Med., Nagasaki Univ., <sup>3</sup>RIMD, Osaka Univ.)

**P1-093****The exploration of small RNAs regulating the expression of *ler* encoding the LEE regulator in EHEC**

○Naoki Sudo<sup>1,2</sup>, Takatsugu Kurita<sup>1</sup>, Jiro Mitobe<sup>2</sup>, Nobuhiko Okada<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Pharm., Kitasato Univ., <sup>2</sup>Dept. Infect. Dis., Sch. Med., Kyorin Univ.)

**P1-094****Differences in gene expression of *Staphylococcus aureus* between organs during infection of mice**

○Hiroshi Hamamoto<sup>1</sup>, Yutaka Suzuki<sup>2</sup>, Kazuhisa Sekimizu<sup>3</sup>  
 (<sup>1</sup>Teikyo Univ. Institute of Medical Mycology, <sup>2</sup>Dep. Computat. Biol. Med. Sci., Univ. of Tokyo, <sup>3</sup>Teikyo Univ., Pharm-Sci., Drug Dis. Silkworm)

**4. Genetics / Genomics / Biotechnology****-d. Genetic manipulation and analysis, biotechnology and synthetic biology****P1-095/W4-2****Effect of expression induction and protein degradation tags on gene expression noise**

○Asako Kitai<sup>1</sup>, Yuichi Wakamoto<sup>2,3,4</sup>, Miki Umetani<sup>2,3,4</sup> (<sup>1</sup>Col. Arts and Sci., Univ. Tokyo, <sup>2</sup>Dept. Basic Sci., Grad. Sch. Arts and Sci., Univ. Tokyo, <sup>3</sup>Res. Ctr. Complex Syst. Biol., Univ. Tokyo, <sup>4</sup>UBI., Univ. Tokyo)

**P1-096/W4-6****Engineered Phage Capsids for Cancer Cell Targeted Drug Delivery Application**

○Srivani Veerananarayanan<sup>1</sup>, Kanate Thitiananpakorn<sup>1</sup>, Takashi Sugano<sup>1</sup>, Shinya Watanabe<sup>1</sup>, Aa Haeruman Azam<sup>2</sup>, Kotaro Kiga<sup>2</sup>, Longzhu Cui<sup>1</sup> (<sup>1</sup>Div. Bacteriology, Dept. Infection & Immunol., Sch. Med., Jichi Med. Univ., <sup>2</sup>Research Center for Drug and Vaccine Development, National Institute of Infectious Diseases)

**P1-097/W4-5****Manipulation of mega-sized bacterial chromosomes in vitro**

○Hironobu Fujita, Ayane Osaku, Takahito Mukai, Masayuki Su'etsugu (Dept. Life Science, Coll. of Sci., Rikkyo Univ.)

**P1-098****Development and Optimization of Genetic Manipulation Systems in Group I *Clostridium botulinum***

○Sho Amatsu<sup>1,2</sup>, Kazuki Saito<sup>1</sup>, Hirofumi Nariya<sup>3</sup>, Yukako Fujinaga<sup>1</sup> (<sup>1</sup>Dept. Bacteriol, Grad. Sch. Med. Sci., Kanazawa Univ., <sup>2</sup>Dept. Forensic Med. Pathol., Grad. Sch. Med. Sci., Kanazawa Univ., <sup>3</sup>Lab. Food Microbiol., Grad. Sch. Human Life Sci Food Nutrition. Sci., Jumonji Univ.)

**P1-099****Development of highly efficient CRISPR-Cas13-antimicrobials against MRSA**

○Adeline Yeo Syin Lian<sup>1</sup>, Aa Haeruman Azam<sup>2</sup>, Kotaro Kiga<sup>2</sup>, Shinya Watanabe<sup>1</sup>, Kazuhiko Miyanaga<sup>1</sup>, Yoshifumi Aiba<sup>1</sup>, Xin-Ee Tan<sup>1</sup>, Longzhu Cui<sup>1</sup> (<sup>1</sup>Div. Bacteriol, Sch. Med., Jichi Med. Univ., <sup>2</sup>Drug and Vaccine Development, NIID)

**4. Genetics / Genomics / Biotechnology -e. Others****P1-100****Analysis of the toxin-antitoxin system, ECs3274-ECs3275, encoded in *Escherichia coli* O157**

○Yuka Sasaki<sup>1</sup>, Mizuki Yoshioka<sup>1</sup>, Yuna Mogi<sup>2</sup>, Yuichi Otsuka<sup>1</sup>  
 (<sup>1</sup>Dept. Biochem. Mol. Biol., Grad. Sch. Sci. Eng., Saitama Univ., <sup>2</sup>Grad. Sch. Front. Sci., Univ. of Tokyo.)

### P1-101

#### Isolation of bacteriophages targeting AIEC strains with a broad host range from wastewater

○Ola Alessa, Kanate Thitianapakorn, Thi My Duyen Ho, Yoshifumi Aiba, Shinya Watanabe, Kazuhiko Miyanaga, Srivani Veerananarayanan, Xin-Ee Tan, Teppei Sasahara, Longzhu Cui (Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

### 5. Pathogenicity -a. Adhesins and colonization factors

### P1-102

#### Cell adhesion and proinflammatory activity by Type 6 secretion system in *Helicobacter cinaedi*

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

### P1-103

#### Characterization of novel autotransporter protein HcaA in *Helicobacter cinaedi*

○Sae Aoki<sup>1</sup>, Shigetaru Mori<sup>1</sup>, Hidenori Matsui<sup>1</sup>, Keigo Shibayama<sup>2</sup>, Tsuyoshi Kenri<sup>1</sup>, Emiko Rimbara<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. II, NIID, <sup>2</sup>Dept. Bacteriol., Grad. Sch. Med., Nagoya Univ.)

### P1-104

#### Identification of virulence factors required for colonization of *Bordetella* during infection

○Ali Shymaa<sup>1</sup>, Takashi Nishida<sup>1</sup>, Shimpei Gotoh<sup>2</sup>, Yasuhiko Horiguchi<sup>1,3</sup> (<sup>1</sup>Dept. Mol. Bact., RIMD., Osaka Univ., <sup>2</sup>Dep. Clin App research., CiRA., Kyoto Univ., <sup>3</sup>CiDER., Osaka Univ)

### P1-105

#### The interaction of fibronectin conformation with *Clostridium perfringens* Fbps and autolysin

○Nozomu Matsunaga<sup>1</sup>, Riyo Aono<sup>2</sup>, Kanako Okabe-Watanabe<sup>3</sup>, Yasuo Hitsumoto<sup>1</sup>, Seiichi Katayama<sup>1</sup> (<sup>1</sup>Dept. Life Sci., Fac. Sci., Okayama Univ. Sci., <sup>2</sup>Dept. Material Sci. Grad. Sch. Sci., Okayama Univ. Sci., <sup>3</sup>Dept. Med. Technol., Fac. Health Sci. Technol., Kawasaki Univ. Med. Welf.)

### P1-106

#### Cryo-EM structure of the Mfa minor type V pilus from the oral pathogen *Porphyromonas gingivalis*

○Satoshi Shibata<sup>1</sup>, Mikio Shoji<sup>2</sup>, Hideyuki Matsunami<sup>3</sup>, Matthias Wolf<sup>3</sup>, Jun Fujii<sup>1</sup> (<sup>1</sup>Div. Bacteriol, Dept. Microbiol. Immunol., Med., Tottori Univ., <sup>2</sup>Dept. Microbiol. Oral Infect., Grad. Sch. Bio. Sci., Nagasaki Univ., <sup>3</sup>Molecular Cryo-Electron Microscopy Unit, OIST)

### P1-107

#### Fatty acid homeostasis tunes flagellar motility, contributing to *Salmonella* gut colonization

○Tsuyoshi Miki<sup>1</sup>, Yusuke Hoshino<sup>1</sup>, Taro Sakamoto<sup>2</sup>, Naoki Sudo<sup>1</sup>, Masahiro Ito<sup>1</sup>, Takeshi Haneda<sup>1</sup>, Nobuhiko Okada<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Pharm., Kitasato Univ., <sup>2</sup>Dept. Hygienic Chem., Sch. Pharm., Kitasato Univ.)

### 5. Pathogenicity

#### -b. Toxins, effectors and physically active substances

### P1-108

#### *Porphyromonas gingivalis* gingipains induce COX-2 expression and PGE2 production via phospholipase C

○Masaaki Nakayama<sup>1,2</sup>, Tomoyuki Yamaguchi<sup>1</sup>, Mariko Naito<sup>3</sup>, Koji Nakayama<sup>3</sup>, Naoya Ohara<sup>1,2</sup> (<sup>1</sup>Dept. Oral Microbiol., Okayama Univ. Fac. Med. Dent. Pharm. Sci., <sup>2</sup>ARCOCS, Okayama Univ. Dent. Sch., <sup>3</sup>Dept. Microbiol. Oral Infect., Nagasaki Univ. Grad. Sch. Biomed. Sci.)

### P1-109

#### GntR-type transcription factor regulates *Rhodococcus equi* VapN expression via antisense RNA

○Yasunori Suzuki<sup>1</sup>, Miu Takagi<sup>1</sup>, Hiroaki Kubota<sup>2</sup>, Shinji Takai<sup>1</sup>, Yukako Sasaki<sup>1</sup>, Tsutomu Kakuda<sup>1</sup> (<sup>1</sup>Lab. Animal Hygiene, Sch. Vet. Med., Kitasato Univ., <sup>2</sup>Dept. Microbiol., Tokyo Metr. Inst. Pub. Health)

### P1-110

#### Computed modulons in *Streptococcus pyogenes* reveals carbon sources that alter its hemolytic activity

○Yujiro Hirose<sup>1</sup>, Victor Nizet<sup>2</sup>, Bernhard O Palsson<sup>3</sup>, Shigetada Kawabata<sup>1</sup> (<sup>1</sup>Dept. Oral Mol. Microbiol., Osaka Univ. Grad. Sch. Dent., <sup>2</sup>Dept. Ped., Univ. California San Diego Sch. Med., <sup>3</sup>Dept. Bioeng., Univ. California San Diego)

### P1-111

#### Extracellular vesicles from *Staphylococcus aureus* promote pathogenicity of *Pseudomonas aeruginosa*

○Phawinee Subsomwong<sup>1</sup>, Kouji Narita<sup>1,2</sup>, Noriaki Kawai<sup>1</sup>, Akio Nakane<sup>3,4</sup>, Krisana Asano<sup>1,3</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Hirosaki Univ. Grad. Sch. Med., <sup>2</sup>Inst. Anim. Exp., Hirosaki Univ. Grad. Sch. Med., <sup>3</sup>Depart. Biopolym. Health Sci., Hirosaki Univ. Grad. Sch. Med., <sup>4</sup>Hirosaki Univ. Health Welf.)

### P1-112

#### Up-regulation of CD11b by *Clostridium perfringens* $\alpha$ -toxin

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

### P1-113

#### Bcr4 is a Chaperone for the Inner Rod Protein in the *Bordetella* Type III Secretion System

Masataka Goto<sup>1</sup>, ○Asaomi Kuwae<sup>1</sup>, Tomoko Hanawa<sup>2</sup>, Masato Suzuki<sup>3</sup>, Akio Abe<sup>1</sup> (<sup>1</sup>Grad. Sch. Infect. Cont. Sci., Kitasato Univ., <sup>2</sup>Dept. Infect. Dis., Kyorin Univ. Sch. Med., <sup>3</sup>Antimicrobial. Resist. Res. Cent., Nat. Inst. Infect. Dis.)

P1-114

**[Withdrawn]**

P1-115

**Identification of regulatory protein on production of serine protease by *Aeromonas sobria***

○Eizo Takahashi<sup>1</sup>, Sadayuki Ochi<sup>1</sup>, Risa Nishimura<sup>1</sup>, Kazuki Koike<sup>1</sup>, Takashi Isobe<sup>1</sup>, Nobumitsu Hanioka<sup>1</sup>, Hidetomo Kobayashi<sup>2</sup>, Soshi Seike<sup>2</sup>, Hiroyasu Yamanaka<sup>2</sup>, Keinosuke Okamoto<sup>3</sup> (<sup>1</sup>Fac. Pharm. Sci., Yokohama Univ. Pharm., <sup>2</sup>Fac. Pharm. Sci., Hiroshima Int. Univ., <sup>3</sup>Colla. Res. Cent. Infect. Dis. Ind., Okayama Uni.)

P1-116

**Comparison of angiogenic autotransporter BafA in *Bartonella* species**

○Kentaro Tsukamoto<sup>1</sup>, Kayo Kumadaki<sup>1</sup>, Natsumi Suzuki<sup>1</sup>, Kaoru Tatematsu<sup>1</sup>, Yuka Kondo<sup>1</sup>, Shingo Sato<sup>2</sup>, Soichi Maruyama<sup>2</sup>, Masahiro Suzuki<sup>1</sup>, Yohei Doi<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Fujita Health Univ. Sch. Med., <sup>2</sup>Dept. Vet. Med., Coll. Bioresource Sci., Nihon Univ.)

P1-117

**Can the novel staphylococcal enterotoxin-like toxins SELJ and SELW cause food poisoning?**

○Hisaya Ono<sup>1</sup>, Yasunori Suzuki<sup>2</sup>, Dong-Liang Hu<sup>1</sup> (<sup>1</sup>Lab. Zoonoses, Sch. Vet. Med., Kitasato Univ., <sup>2</sup>Lab. Vet. Hygiene, Sch. Vet. Med., Kitasato Univ.)

P1-118

**Disruption of tight junction by *Aeromonas* serine protease is enhanced by the presence of bacteria**

○Hidetomo Kobayashi<sup>1</sup>, Soshi Seike<sup>1</sup>, Eizo Takahashi<sup>2</sup>, Keinosuke Okamoto<sup>3</sup>, Hiroyasu Yamanaka<sup>1</sup> (<sup>1</sup>Labo. Mol. Microbiol. Sci., Fac. Pharm. Sci., Hiroshima Int. Univ., <sup>2</sup>Labo. Med. Microbiol., Fac. Pharm. Sci., Yokohama Univ. Pharm., <sup>3</sup>Colla. Res. Cent. Infect. Dis. Ind., Okayama Univ.)

P1-119

**Analysis of the regulatory mechanisms of endosomal membrane damage during pneumococcal infection**

○Sayaka Shizukuishi<sup>1,2</sup>, Michinaga Ogawa<sup>1</sup>, Yukihiro Akeda<sup>1</sup>, Akihide Ryo<sup>2</sup>, Makoto Ohnishi<sup>1,3</sup> (<sup>1</sup>Bacteriol. I, Nat. Inst. Infect. Dis., <sup>2</sup>Dept. Microbiol., Yokohama City Univ., Grad. Sch. Med., <sup>3</sup>Chubu Regional Public Health Center, Okinawa Prefecture)

P1-120

**Mechanism of host-cellular response to streptolysin S produced by *Streptococcus anginosus***

○Yugo Yamamori<sup>1</sup>, Atsushi Tabata<sup>1,2</sup>, Toshifumi Tomoyasu<sup>1,2</sup>, Hideaki Nagamune<sup>1,2</sup> (<sup>1</sup>Dept. Biosci. & Bioindust., Fac. Biosci. & Bioindust., Tokushima Univ., <sup>2</sup>Div. Biosci. & Bioindust., Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ.)

P1-121

**Characterization of mosaic botulinum neurotoxin type CD in mice**

Shin-Ichiro Miyashita<sup>1</sup>, Mako Fujiishi<sup>1</sup>, Shura Karatsu<sup>2</sup>, Tamaki Morobishi<sup>3</sup>, Yuki Nagashima<sup>3</sup>, ○Tsuyoshi Hata<sup>3</sup>, I Hsun Huang<sup>2</sup>, Keita Hosoya<sup>2</sup>, Yoshimasa Sagane<sup>1</sup> (<sup>1</sup>Dept. Food Aroma Cosme. Chem., Fac. Bio-ind., Tokyo NODAI, <sup>2</sup>Dept. Bio. Indust., Grad. Sch. Bio. Indust., Tokyo NODAI, <sup>3</sup>Dept. Food. Cosme. Sci., Grad. Sch. Bio. Indust., Tokyo NODAI)

P1-122

**Exploration of novel virulence factors of *Legionella pneumophila* using ciliate-killing phenomenon**

○Torahiko Okubo, Hiroyuki Yamaguchi (Fac. Health Sci., Hokkaido Univ.)

P1-123

**Virulence regulation by drug responsive protein (Drp35) in *Staphylococcus aureus***

○Maaya Sasaki<sup>1</sup>, Vishal Gor<sup>2</sup>, Kazuya Morikawa<sup>2</sup> (<sup>1</sup>Grad. Sch. Com. Hum. Sci., Univ. Tsukuba, <sup>2</sup>Div. Biomed. Sci., Fac. Med., Univ. Tsukuba)

P1-124

**Interaction analysis between BteA and BopN produced by *Bordetella***

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

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**5. Pathogenicity**
**-c. Cell invasion and intracellular parasitism**


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P1-125

**Mechanical response of actin cytoskeleton remodeling induced by the *Salmonella Typhimurium* invasion**

○Hiroaki Kubota<sup>1</sup>, Togo Shimosawa<sup>2</sup>, Kai Kobayashi<sup>1</sup>, Morika Mitobe<sup>1</sup>, Yasunori Suzuki<sup>3</sup>, Jun Suzuki<sup>1</sup>, Kenji Sadamasu<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Tokyo Metr. Inst. Pub. Health, <sup>2</sup>Sch. Sci., Univ. Tokyo, <sup>3</sup>Lab. Animal Hygiene, Sch. Vet. Med., Kitasato Univ.)

P1-126

**Dormant infection of *Helicobacteri cinaedi* in bone marrow sustained by sulfur respiration**

○Tetsuro Matsunaga<sup>1</sup>, Masanobu Morita<sup>1</sup>, Akira Nishimura<sup>2</sup>, Tomoaki Ida<sup>1</sup>, Tomohiro Sawa<sup>3</sup>, Hozumi Motohashi<sup>4</sup>, Yoshiaki Kawamura<sup>4</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., <sup>2</sup>Div. Biol. Sci., Grad. Sch. Sci. Technol., NAIST, <sup>3</sup>Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., <sup>4</sup>Dept. Gene Exp. Regulation, IDAC, Tohoku Univ., <sup>5</sup>Dept. Microbiol., Sch. Pharmacy, Aichi-Gakuin Univ.)

**P1-127****Pathogenic Chlamydia L2 requires aryl hydrocarbon receptors and deetyrosinated tubulin for its growth**

○Saicheng Zhang<sup>1</sup>, Torahiko Okubo<sup>1</sup>, Shinji Nakamura<sup>2</sup>, Hideaki Higashi<sup>3</sup>, Hiroyuki Yamaguchi<sup>1</sup> (<sup>1</sup>Fac. Health Sc., Hokkaido Univ., <sup>2</sup>Fac. Sch Med., Juntendo Univ., <sup>3</sup>Fac. Human Beast Research Center, Hokkaido Univ.)

**P1-128****A bacterial P-type ATPase is required for intracellular growth of Rhodococcus equi**

○Tutomu Kakuda, Yuto Fukumura, Nuttapone Sangkanjanavanich, Yasunori Suzuki (Lab. Animal Hygiene, Sch. Vet. Med., Kitasato Univ.)

**P1-129****Obligate intracellular Chlamydia trachomatis (L2 434/Bu) favors hypoxic cultured host cell condition**

○Ruiyu Li, Saicheng Zhang, Torahiko Okubo, Hiroyuki Yamaguchi (Fac. Health Sci., Hokkaido Univ.)

**5. Pathogenicity****-d. Immune escape and proliferation in hosts****P1-130****Antimicrobial-resistant Staphylococcus aureus activates AIM2 inflammasome to exacerbate infection**

○Hideki Hara<sup>1,3</sup>, Kei Sakamoto<sup>2</sup>, Yasuyuki Matsuda<sup>1</sup>, Akihiko Yoshimura<sup>3</sup>, Gabriel Nunez<sup>4</sup> (<sup>1</sup>Dept. Microbiol. Immunochem., Asahikawa Med. Univ., <sup>2</sup>Dept. Lab. Med., Sch. Med., Nagasaki Univ., <sup>3</sup>Dept. Microbiol. Immunol., Sch. Med., Keio Univ., <sup>4</sup>Dept. Pathol., Sch. Med., Univ. Michi.)

**P1-131****NF-κB has a role of bactericidal in macrophages infected with Mycobacterium tuberculosis**

○Akari Shinohara<sup>1</sup>, Risa Imamiya<sup>2</sup>, Yasuhiko Horiguchi<sup>3</sup>, Mayuko Osada-Oka<sup>1</sup> (<sup>1</sup>Food Hyg. Env. Health., Grad. Sch. Life Env. Sci., Kyoto Pref. Univ., <sup>2</sup>Food Hyg. Health., Life Env. Sci., Kyoto Pref. Univ., <sup>3</sup>Dept. Mol. Bact., RIMD, Osaka Univ.)

**P1-132****Genetic analysis of oxidative stress resistance in Bacillus subtilis**

○Yusuke Miyoshi<sup>1</sup>, Kazuya Ishikawa<sup>2</sup>, Kazuyuki Furuta<sup>2</sup>, Chikara Kaito<sup>2</sup> (<sup>1</sup>Lab. Mol. Biol., Fac. Pharm., Okayama Univ., <sup>2</sup>Lab. Mol. Biol., Grad. Sch. Med. Dent. Pharm., Okayama Univ.)

**P1-133****How Streptococcus pyogenes is (or is not) targeted by autophagy in blood vessel endothelial cells**

○Shiou-Ling Lu, Takeshi Noda (Grad. Sch. Dentistry, Osaka Univ.)

**5. Pathogenicity -e. Infection models****P1-134****Aspiration pneumonia mice model induced by acute lung injury with human oral flora transplantation**

○Manami Hayashi, Mina Mori, Momoe Itsumi, Mie Kurosawa, Haruka Fukamachi, Hirobumi Morisaki, Hirotaka Kuwata (Dept. Oral. Microbiol. Immunol., Sch. Dent., Showa Univ.)

**P1-135****The role of commensal microflora on the neutrophil differentiation in the oral mucosal membrane**

○Mina Mori, Manami Hayashi, Natsuno Nakamura, Momoe Itsumi, Mie Kurosawa, Haruka Fukamachi, Hirobumi Morisaki, Hirotaka Kuwata (Dept. Oral. Microbiol. Immunol., Sch. Dent., Showa Univ.)

**P1-136****Investigation of Artemia-mediated administration of bacteria to Medaka**

○Ryuki Sato<sup>1</sup>, Yui Hikosaka<sup>2</sup>, Joe Sakamoto<sup>3,4</sup>, Yasuhiro Kamei<sup>3</sup>, Shigeki Kamitani<sup>1,2,5</sup> (<sup>1</sup>Div. Clin. Nutr., Sch. Comp. Rehabil., OPU, <sup>2</sup>Div. Clin. Nutr., Grad. Sch. Comp. Rehabil., OPU, <sup>3</sup>Trans-Scale Biol Cent, NIBB, <sup>4</sup>Biophotonics, ExCELLS, <sup>5</sup>Dept. Nutr., Grad. Sch. Hum. Life & Ecol., OMU)

**5. Pathogenicity -f. Others****P1-137****Genome-wide Screening Reveals Essential Genes Required by Bordetella bronchiseptica in Rat Infection**

○Xingyan Ma<sup>1</sup>, Nugraga Dendi Krisna<sup>1</sup>, Yasuhiko Horiguchi<sup>1,2</sup> (<sup>1</sup>Dept. Mol. Bact., RIMD, Osaka Univ., <sup>2</sup>CiDER, Osaka Univ.)

**P1-138****Fusobacterium nucleatum promotes Epithelial-Mesenchymal Transition of HSC-3**

○Shintaro Nakano<sup>1,2</sup>, Chisato Ouchi<sup>2,3</sup>, Keisuke Nakamura<sup>2,3</sup>, Akira Hasebe<sup>2</sup> (<sup>1</sup>Dept. Oral and Maxillofacial Surgery., Grad Sch. Dent Med., Hokkaido Univ., <sup>2</sup>Dept. Oral Mol Microbiol., Grad Sch. Dent Med., Hokkaido Univ., <sup>3</sup>Dept. Oral Diagnosis and Medicine., Grad Sch. Dent Med., Hokkaido Univ.)

**P1-139****Analysis of Shiga toxin-producing Escherichia coli (STEC) isolated from wild boar**

○Keiko Kimata, Jun-ichi Kanatani, Junko Isobe, Kazunori Oishi (Dept. Bacteriol., Toyama Inst. Health.)

**P1-140****Serotype switching can modulate virulence in *Streptococcus suis***

○Masatoshi Okura<sup>1</sup>, Jean-Philippe Auger<sup>2</sup>, Tomoyuki Shibahara<sup>1</sup>, Guillaume Goyette-Desjardins<sup>2</sup>, Marie-Rose Van Calsteren<sup>3</sup>, Fumito Maruyama<sup>4</sup>, Mikihiro Kawai<sup>5</sup>, Mariela Segura<sup>2</sup>, Marcelo Gottschalk<sup>2</sup>, Daisuke Takamatsu<sup>1</sup> (<sup>1</sup>NIAH, NARO, <sup>2</sup>Facul. Vet. Med., Univ. Montreal, <sup>3</sup>Agri. Agri-Food Canada, <sup>4</sup>IDEC Inst., Hiroshima Univ., <sup>5</sup>Grad. Sch. Hum. Environ. Stud., Kyoto Univ.)

**P1-141****Lipid droplets formation occurs after *Mycoplasma pneumoniae* infection**

○Takeshi Yamamoto, Miki Okuno, Koichi Kuwano, Yoshitoshi Ogura (Dept. Infect. Med., Sch. Med., Kurume Univ.)

**P1-142****Degradation of p120-catenin proteins during leptospiral disruption of the junctional complex**

Romina Tokumon, Isabel Sebastian, Tetsu Yamashiro, ○Claudia Toma (Dept. Bacteriol., Grad. Sch. Med., Univ. of the Ryukyus)

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**6. Host defense -a. Innate immunity**


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**P1-143*****Acinetobacter baumannii* activates NLRP3 inflammasome through caspase-11-mediated membrane rupture**

○Yasuyuki Matsuda, Kenichiro Mori, Hideki Hara (Dept. Microbiol. Immunochem., Sch. Med., Asahikawa Med. Univ.)

**P1-144****Effects of phiMR003, *Staphylococcus aureus* phage, on MRSA wound infection**

○Mayuko Tanaka<sup>1</sup>, Tomoya Suda<sup>2</sup>, Yasunori Tanji<sup>1,3</sup>, Takeaki Matsuda<sup>2,4</sup>, Tomoko Hanawa<sup>1</sup> (<sup>1</sup>Dept. Infect. Dis., Sch. Med., Kyorin Univ., <sup>2</sup>Dept. Gen. Med., Sch. Med., Kyorin Univ., <sup>3</sup>Sch. Life Sci. and Tech., Tokyo Inst. Tech., <sup>4</sup>Dept. Traum. Crit. Care Med., Sch. Med., Kyorin Univ.)

**P1-145****Effects of *Bacillus subtilis* on antigen presentation factors in dendritic cells**

○Yohei Chishaki<sup>1</sup>, Kazuyuki Furuta<sup>1</sup>, Kazuya Ishikawa<sup>1</sup>, Chikara Kaito<sup>1</sup> (<sup>1</sup>Lab. Mol. Biol., Fac. Parm., Okayama Univ., <sup>2</sup>Lab. Mol. Biol., Grad. Sch. Med. Dent. Parm., Okayama Univ.)

**P1-146****Role of AIM in the mechanism of chronic pulmonary MAC disease**

○Chiaki Kajiwara<sup>1</sup>, Ayako Shiozawa<sup>2</sup>, Kazuhiro Tateda<sup>1,2</sup> (<sup>1</sup>Dept. Microbiol. Infect. Dis., Sch. Med., Toho Univ., <sup>2</sup>Dept. Collab. Reg. IC., Sch. Med., Toho Univ.)

**P1-147****Lipopolysaccharide pre-conditioning enhances the bactericidal activity of Kupffer cells in mice**

○Hiroyuki Nakashima, Azusa Kato, Bradley Kearny, Masahiro Nakashima, Manabu Kinoshita (Dept. Immunology and Microbiology, National Defense Medical College)

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**6. Host defense -b. Acquired immunity, vaccines and prevention and control of infections**


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**P1-148****Probiotic *E. coli* chimera-derived membrane vesicle vaccine against capsulated pathogens**

○Ryoma Nakao<sup>1</sup>, Yusuke Iwabuchi<sup>1,2</sup>, Kazuyoshi Kawahara<sup>3</sup>, Yukihiro Akeda<sup>1</sup>, Makoto Ohnishi<sup>4</sup> (<sup>1</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis., <sup>2</sup>Dept. Pediat. Dent./Special Need Dent., Tokyo Med. Dent. Univ., <sup>3</sup>Col. Sci. Eng., Kanto Gakuin Univ., <sup>4</sup>Natl. Inst. Infect. Dis.)

**P1-149****Development of anti-tuberculosis vaccine using *Mycobacterium bovis* BCG-derived membrane vesicles**

○Takehiro Yamaguchi<sup>1,2</sup>, Noriaki Samukawa<sup>2</sup>, Ryoma Nakao<sup>1</sup>, Yukihiro Akeda<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. I, Nat. Inst. Infect. Dis., <sup>2</sup>Dept. Pharmacol., Grad. Sch. Med., Osaka Metropolitan Univ.)

**P1-150****Impact of lactoferrin to the interaction between vaginal *L. crispatus* and vaginal epithelial cells**

○Riho Tabata, Maho Shimada, Masahiro Ito, Nobuhiko Okada (Dept. Microbiol., Sch. Pha., Kitasato Univ.)

**P1-151****Effect of Th1 cytokine, IFN- $\gamma$  on CCL5/RANTES production from Langerhans cells**

○Katsuhiko Matsui, Kotone Mogi, Risa Shibata (Dept. Clin. Immunol., Meiji Pharmaceut. Univ.)

**P1-152****Elucidation of pneumonia-inducing mechanism by additional inoculation of Zmp1-deficient BCG**

○Masayuki Umemura<sup>1,2,3</sup>, Julia Toguchi<sup>1,2</sup>, Masayori Yoshisato<sup>1,2</sup>, Ryusei Shimotada<sup>1,2</sup>, Giichi Takaesu<sup>1,2,3</sup>, Goro Matsuzaki<sup>1,2,3</sup> (<sup>1</sup>Mol. Microbiol. Gr., TBRC, Univ. Ryukyus, <sup>2</sup>Dept. Host Defense, Grad. Sch. Med., Univ. Ryukyus, <sup>3</sup>AMRC, Faculty Med., Univ. Ryukyus)

**P1-153****Vaccine-induced lung resident memory Th2 cells are protective against *Cryptococcus gattii* infections**

○Keigo Ueno<sup>1</sup>, Soichiro Tsuge<sup>1,2</sup>, Kiminori Shimizu<sup>2</sup>, Yoshitsugu Miyazaki<sup>1</sup> (<sup>1</sup>Dept. Fungal Infection, NIID, <sup>2</sup>Dept. Biol. Sci. Tec., Faculty Adv. Engin. Tokyo Univ. Sci.)

## 6. Host defense -c. Others

### P1-154

#### Construction of monosaccharide-type lipid A derivatives by periodate oxidation

○Kazuyoshi Kawahara<sup>1</sup>, Akira Onuki<sup>1</sup>, Hiroaki Takimoto<sup>2</sup>, Sakura Onoue<sup>1</sup> (<sup>1</sup>Dept. Biosci., Col. Sci. Eng., Kanto Gakuin Univ., <sup>2</sup>Dept. Biosci., Sch. Sci., Kitasato Univ.)

## 7. Antimicrobial agents and resistance

### -a. Antimicrobial agents

### P1-155

#### Characterization and identification of inhibitors of malate:quinone oxidoreductase from *C. jejuni*

○Augustin T. Kabongo<sup>1,2</sup>, Rajib Acharjee<sup>2,3</sup>, Takaya Sakura<sup>1,2</sup>, Gloria M. Bundutidi<sup>2,3</sup>, Endah D. Hartuti<sup>2,3</sup>, Cadi Davies<sup>4</sup>, Ozan Gundogdu<sup>4</sup>, Tomoo Shiba<sup>5</sup>, Kiyoshi Kita<sup>1</sup>, Daniel K. Inaoka<sup>1,2</sup> (<sup>1</sup>Dept. Glob. Health, Sch. Trop. Med. Glob. Health, Nagasaki Univ., <sup>2</sup>Dept. Mol. Inf. Dynam., Inst. Trop. Med., Nagasaki Univ., <sup>3</sup>Prog. Nurt. Glob. Lead. in Trop. and Emerg. Com. Dis., Grad. Sch. Biomed. Sc., Nagasaki Univ., <sup>4</sup>Fac. Inf. Trop. Dis., London Sch. Hyg. and Trop. Med., <sup>5</sup>Dept. Appl. Biol., Grad. Sch. Sc. and Tech., Kyoto Inst. Techn.)

### P1-156

#### Heterologous expression of beta-lytic protease and improvement of staphylolytic activity

○Takahiro Hioki, Daichi Yamashita, Saki Takahira, Masatoshi Tohata, Keiji Endo, Akihito Kawahara, Mitsuyoshi Okuda, Shingo Koyama (Kao Corp.)

### P1-157

#### Enhancement of antibacterial activity of *Lactobacillus* sp. by *Lonicera caerulea*

○Masaaki Minami<sup>1</sup>, Mineo Nakamura<sup>2</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Nagoya City Univ., <sup>2</sup>Nakamura Pharmacy)

### P1-158

#### Isolation of novel LPS function inhibitor myceliostatin from methionine-added culture of fungus

○Yinzhi Lin<sup>1</sup>, Yanhua Wu<sup>2</sup>, Liyan Wang<sup>3</sup>, Shiori Kojima<sup>4</sup>, Naoki Koide<sup>1</sup>, Kazuo Umezawa<sup>2</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Sch. Med., Aichi Med. Univ., <sup>2</sup>Dept. Mol. Target, Sch. Med., Aichi Med. Univ., <sup>3</sup>College of Life Sciences and Oceanography, Shenzhen Univ., <sup>4</sup>Fukuyu Med. Instu.)

### P1-159

#### The development of antibodies that regulates the function of surface proteins of *S. pyogenes*

○Tsukushi Yamawaki<sup>1</sup>, Makoto Nakakido<sup>2</sup>, Chihiro Aikawa<sup>3</sup>, Jose Caaveiro<sup>4</sup>, Ichiro Nakagawa<sup>3</sup>, Kouhei Tsumoto<sup>1,2,5</sup> (<sup>1</sup>Dept. Chem. Biotech., Sch. Eng., Univ. of Tokyo, <sup>2</sup>Dept. Bioeng., Sch. Eng., Univ. of Tokyo, <sup>3</sup>Dept. Microbiol., Sch. Med., Kyoto Univ., <sup>4</sup>Grad. Sch. Pharm. Sci., Kyusyu Univ., <sup>5</sup>Inst. of Med. Sci., Univ. of Tokyo)

### P1-160

#### Development of *Escherichia coli* growth inhibition procedure by inducing MazF using M13 bacteriophage

○Hana Hasegawa<sup>1</sup>, Rino Isshiki<sup>1,2</sup>, Tatsuki Miyamoto<sup>1</sup>, Kenichi Takasugi<sup>1</sup>, Naohiro Noda<sup>1,3</sup>, Satoshi Tsuneda<sup>1,2</sup> (<sup>1</sup>Dept. Life Sci. Med. Biosci., Sch. Adv. Sci. Eng., Waseda Univ., <sup>2</sup>Phage Therapy Inst., Waseda Univ., <sup>3</sup>Biomed. Res. Inst., AIST)

### P1-161

#### Screening for compounds to control *Bordetella pertussis* infection by modulating the BvgAS system

○Natsuko Ota<sup>1</sup>, Toshiya Ueno<sup>1</sup>, Yukihiko Hiramatsu<sup>1</sup>, Yasuhiko Horiguchi<sup>1,2</sup> (<sup>1</sup>Dept. Mol. Bacteriol., RIMD., Osaka Univ., <sup>2</sup>CiDER., Osaka Univ.)

### P1-162

#### Comparison of antibacterial activity against *Campylobacter jejuni* among *Bacillus natto*

○Ryosuke Kadoya, Kotone Kawashima, Ayaka Nikaido, Yuka Yasuda (Dept. Food and Nutrition, Sch. Life Stud., Sugiyama Jogakuen Univ.)

### P1-163

#### Different CprABC aminoacid sequences affect nisinA susceptibility in *Clostridioides difficile*

○Noriaki Ide<sup>1</sup>, Miki Matsuo<sup>2</sup>, Mi Nguyen Tra Le<sup>2</sup>, Junzo Hisatsune<sup>5</sup>, Toshinori Hara<sup>3</sup>, Seiya Kashiyama<sup>3</sup>, Michiya Yokozaki<sup>3</sup>, Hiroki Ohge<sup>4</sup>, Motoyuki Sugai<sup>5</sup>, Hitoshi Komatsuzawa<sup>2</sup> (<sup>1</sup>Dept. Adv. Gen. Dent., Grad. Sch., Hiroshima Univ., <sup>2</sup>Dept. Bacteriol., Grad. Sch., Hiroshima Univ., <sup>3</sup>Proj. Res. Cent. Nosoc. Infec. Disea., Hosp., Hiroshima Univ. Hosp., <sup>4</sup>Sect. Clinic. Lab., Divi. Clinic. Sup., hosp., Hiroshima Univ. Hosp., <sup>5</sup>Antimicrob. Resist. Res. Cent., Natio. Inst. Infec. Dise.)

### P1-164

#### Comprehensive analysis of bacteriocins produced by *Klebsiella pneumoniae* complex

○Mi Nguyen-Tra Le<sup>1</sup>, Thao Huu-Huong Nguyen<sup>1</sup>, Tam Phuc-Bao Nguyen<sup>1</sup>, Van Minh Trinh<sup>1</sup>, Miki Matsuo<sup>1</sup>, Shizuo Kayama<sup>2</sup>, Motoyuki Sugai<sup>2</sup>, Hitoshi Komatsuzawa<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Biomed., Hiroshima Univ., <sup>2</sup>Antimicrob. Resist. Res. Cent., Nat. Inst. of Infect. Dis.)

**P1-165****Screening of compounds to Identify antimicrobial compounds targeting bacterial metabolism**

○Marie Ikai<sup>1</sup>, Kayo Kumadaki<sup>1</sup>, Nao Hirata<sup>1</sup>, Moe Fujii<sup>2</sup>, Komei Sakairi<sup>3</sup>, Takehiko Mima<sup>2</sup>, Yuji Morita<sup>3</sup>, Ayato Sato<sup>4</sup>, Yusuke Minato<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., Fujita Health Univ., <sup>2</sup>Dept. Microbiol., Fac. Health Sci., Ehime Pref. Univ. Health Sci., <sup>3</sup>Dept. Infection Control Science, Meiji Pharmaceutical Univ., <sup>4</sup>ITbM, Nagoya Univ.)

**P1-166****The developments of antibiotics targeting the Bam complex for multidrug-resistant *Acinetobacter***

○Hiroaki Inada<sup>1</sup>, Nayu Taniguchi<sup>1</sup>, Takahiro Tsuchiya<sup>1</sup>, Katsushiro Miyamoto<sup>1</sup>, Jun Komano<sup>1</sup>, Eisaku Yoshihara<sup>2</sup>, Hiroshi Tsujibo<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Infect. Cont., Osaka Med. Pharm. Univ., <sup>2</sup>Dept. Lab. Med., Tokai Univ. Sch. Med.)

**P1-167****Bortezomib Eliminates Persistent *Chlamydia* Infection through Specific Host Cell Apoptosis**

○Ryota Itoh, Yusuke Kurihara, Michinobu Yoshimura, Kenji Hiromatsu (Dept. Microbiol. Immunol., Fac. Med., Fukuoka Univ.)

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**7. Antimicrobial agents and resistance**  
**-b. Antimicrobial resistance**

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**P1-168****Clarithromycin resistance by *mef(A)/mef(E)*-associated *msr(D)* in *Streptococcus pyogenes***

○Ichiro Tatsuno, Masanori Isaka, Tadao Hasegawa (Dept. Bacteriol., Shc. Med., Nagoya City Univ.)

**P1-169****Drug resistance analysis of meropenem and amikacin-resistant *Escherichia coli***

○Yuji Nakada<sup>1</sup>, Shoichi Sakaguchi<sup>2</sup>, Miyu Horii<sup>1</sup>, Yoko Yabuta<sup>1</sup>, Hinako Yokoyama<sup>1</sup>, Takashi Nakano<sup>2</sup> (<sup>1</sup>Fac. Healthcare Sci., Aino. Univ., <sup>2</sup>Dept. Microbiol. & Infect. Cont., Fac. Med., Osaka Med. & Pharm. Univ.)

**P1-170****Genome analysis of colistin-resistant *Escherichia coli* from residents in Ecuador and Vietnam**

○Hoa Hoang, Mayumi Yamamoto, Yoshimasa Yamamoto (UGS-DDMIS, Gifu Univ.)

**P1-171****Screening for colistin-resistant bacteria contaminating retail meat in Vietnam by detecting *mcr* gene**

○Yen Le, Kanoko Ikawa, Hoa Hoang, Hatsue Isomura, Kaori Tanaka, Yoshimasa Yamamoto (UGS-DDMIS, Gifu Univ.)

**P1-172****Genome-encoded ABCF factors implicated in intrinsic antibiotic resistance of *Clostridia***

○Nozomu Obana<sup>1,2</sup>, Hiraku Takada<sup>3,4</sup>, Nobuhiko Nomura<sup>2,5</sup>, Gemma Atkinson<sup>4</sup>, Vasili Hauryliuk<sup>4</sup> (<sup>1</sup>TMRC, Fac. Med., Univ. Tsukuba, <sup>2</sup>MiCS, Univ. Tsukuba, <sup>3</sup>Fac. Life Sci., Kyoto Sangyo Univ., <sup>4</sup>Dept. Expt. Med. Sci., Lund Univ., <sup>5</sup>Fac. Life. Environ. Sci., Univ. Tsukuba)

**P1-173****Surveillance of multidrug resistance phenotypes in *S. aureus* and correlation with WGS findings**

○Koji Yahara<sup>1</sup>, Yumiko Hosaka<sup>1</sup>, Adam Clark<sup>2</sup>, Hiroki Kitagawa<sup>3</sup>, Junzo Hisatune<sup>1</sup>, Motoyuki Sugai<sup>1</sup>, Keigo Shibayama<sup>4</sup>, John Stelling<sup>2</sup> (<sup>1</sup>AMR Research Center, NIID, <sup>2</sup>WHO CC, Brigham and Women's Hospital, <sup>3</sup>Dept. Infect. Dis., Hiroshima Univ. Hosp., <sup>4</sup>Dept. Bacteriology, Nagoya Univ.)

**P1-174****A Novel Bacteriocin Resistance Mechanism Mediated by Cell Surface Charge in *Staphylococcus aureus***

○Yujin Suzuki<sup>1</sup>, Miki Kawada-Matsuo<sup>1,2</sup>, Mi Nguyen Tra Le<sup>1,2</sup>, Hitoshi Komatsuzawa<sup>1,2</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Biomed. and Health Sci., Hiroshima Univ., <sup>2</sup>Proj. Res. Ctr. for Nosocomial Infect. Dis., Hiroshima Univ.)

**P1-175****Impact of mutations in *GyrA* and *QnrB19* on resistance to fluoroquinolone in *Salmonella* Typhimurium**

○Pondpan Suwanthada<sup>1</sup>, Jeewan Thapa<sup>1</sup>, Chie Nakajima<sup>1,2</sup>, Yasuhiko Suzuki<sup>1,2</sup> (<sup>1</sup>Div. Bioresources, Hokkaido Univ., International Institute for Zoonosis Control, <sup>2</sup>International Collaboration Unit, Hokkaido Univ., International Institute for Zoonosis Control)

**P1-176****Role of fluoroquinolone resistance-associated mutations in *Mycobacterium avium gyrA* to resistance**

○Jeewan Thapa<sup>1</sup>, Joseph Yamweka Chizimu<sup>1,2</sup>, Soyoka Kitamura<sup>3</sup>, Mwangala Lonah Akapelwa<sup>1</sup>, Pondpan Suwanthada<sup>1</sup>, Nami Miura<sup>1</sup>, Jirachaya Toyting<sup>1</sup>, Chie Nakajima<sup>1</sup>, Yasuhiko Suzuki<sup>1</sup> (<sup>1</sup>Int. Inst. Zoonosis Ctr., Hokkaido Univ., <sup>2</sup>Zambian Nat. Pub. Health Inst., <sup>3</sup>Fac. Health. Sci., Hokkaido Univ.)

**P1-177****Characterization of a novel plasmid in *S. marcescens* harbouring *bla*<sub>GES-5</sub> isolated from an outbreak**

○Noriko Nakanishi, Tomotada Iwamoto, Ryohei Nomoto (Dept. Infec. Dis., Kobe Inst.)

**P1-178****A new mechanism of resistance to azole compounds in a dermatophyte *Trichophyton indotineae***

○Tsuyoshi Yamada<sup>1,2</sup>, Takashi Yaguchi<sup>3</sup> (<sup>1</sup>Inst. Med Mycol., Teikyo Univ., <sup>2</sup>Asia Intl. Inst. Infect. Dis. Ctrl., Teikyo Univ., <sup>3</sup>Med. Mycol. Res. Ctr., Chiba Univ.)

**P1-179**

**Molecular Characterization of Multidrug-resistant Mer-positive Bacteria from Meat Sources in Japan**

○Christian Xedzro<sup>1</sup>, Tomomi Kimura<sup>2,3</sup>, Toshi Shimamoto<sup>1</sup>, Tadashi Shimamoto<sup>1</sup> (<sup>1</sup>Lab. Food. Microbiol. Hyg, Grad. Sch. Integ. Sci. Life., Hiroshima Univ., <sup>2</sup>Lab. Food. Microbiol. Hyg, Grad. Sch. Bio. Sci., Hiroshima Univ., <sup>3</sup>GeneDesign, Inc.)

**7. Antimicrobial agents and resistance -c. Others**

**P1-180**

**Photo-repair in *Escherichia coli* after inactivation by irradiation with 222 nm-UVC**

○Kouji Narita<sup>1,2</sup>, Krisana Asano<sup>1,3</sup>, Risako Fukushi<sup>1,4</sup>, Kyosuke Yamane<sup>5</sup>, Yoshihiko Okumura<sup>5</sup>, Hiroyuki Ohashi<sup>5</sup>, Tatsushi Igarashi<sup>5</sup>, Akio Nakane<sup>1,3,4</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Hirosaki Univ. Grad. Sch. Med., <sup>2</sup>Inst. Animal Exp., Hirosaki Univ. Grad. Sch. Med., <sup>3</sup>Dept. Biopolym. Health Sci., Hirosaki Univ. Grad. Sch. Med., <sup>4</sup>Dept. Nursing, Sch. Health Sci., Hirosaki Univ. Health Welfare, <sup>5</sup>Ushio Inc.)

**P1-181**

**Effect of plant-derived antimicrobial components and ions on *Candida albicans***

○Hideki Nishiura<sup>1,2</sup>, Muneaki Tamura<sup>3,4</sup>, Kenichi Imai<sup>3,4</sup> (<sup>1</sup>Div. Appl. Oral Sci., Nihon Univ. Sch. Dent. Grad. Sch. Dent., <sup>2</sup>Dept. Complete Denture Prosthodontics, Nihon Univ. Sch. Dent., <sup>3</sup>Dept. Microbiol. Immunol., Nihon Univ. Sch. Dent., <sup>4</sup>Div. Immunol. Pathobiol., Dent. Res. Cent., Nihon Univ. Sch. Dent.)

**P1-182**

**Bacteriophage treatment of experimental tenacibaculosis of red seabream**

○Akiko Kusumoto<sup>1,2</sup>, Katsuya Ishimaru<sup>3</sup>, Haruka Hideshima<sup>2</sup>, Toshihiro Nakai<sup>4</sup>, Yusuke Kondou<sup>4</sup> (<sup>1</sup>Chugoku Gakuen Univ., <sup>2</sup>Diagnostic Ctr. for Animal Health & Food Safety, Obihiro Univ. of Agri. & Vet. Med., <sup>3</sup>Aquaculture Res. Inst., Kindai Univ., <sup>4</sup>Grad. Sch. Integrated Sciences for Life, Hiroshima Univ.)

**P1-183**

**Multidrug efflux pumps of *Pseudomonas aeruginosa* represses the effect of sub-MIC of macrolide**

○Shin Suzuki<sup>1,3</sup>, Yuji Morita<sup>2</sup>, Shota Ishige<sup>1</sup>, Kiyohiro Kai<sup>1</sup>, Akiko Miyabe<sup>3</sup>, Shota Murata<sup>3</sup>, Kenji Kawasaki<sup>3</sup>, Kazuyuki Matsushita<sup>3</sup>, Takeshi Shimizu<sup>1</sup> (<sup>1</sup>Dept. Molecular Infectiology, Grad. Sch. Medicine, Chiba Univ., <sup>2</sup>Dept. Infection Control Science, Meiji Pharmaceutical Univ., <sup>3</sup>Dept. Laboratory Medicine, Chiba Univ. Hospital)

**P1-184**

**Proposal of long-lasting phage cocktail based on physiological properties of *E. coli* phages**

○Tomoyoshi Kaneko<sup>1</sup>, Toshifumi Osaka<sup>2</sup>, Satoshi Tsuneda<sup>1,3</sup> (<sup>1</sup>Dept. Life Sci. Med. Biosci., Sch. Adv. Sci. Eng., Waseda Univ., <sup>2</sup>Dept. Microbiol. Immunol., Tokyo Wom. Med. Univ., <sup>3</sup>Phage Therapy Inst., Waseda Univ.)

**8. Others**

**P1-185**

**Fundamental experiments on the creation of neuro-directed molecules using bacterial toxins**

○Maiko Onishi, Yasushi Torii (Grad. Sch. Tokyo Univ of Agriculture)

**P1-186**

**The effect of *Carnobacterium maltaromaticum* isolated from pickles on healthspan in *C. elegans***

○Mina Hashimoto<sup>1,2</sup>, Toshiaki Shimizu<sup>2</sup>, Takayuki Wada<sup>1</sup>, Eriko Nakadai-Kage<sup>1</sup> (<sup>1</sup>Grad. Sch. Hum Life Sci., Osaka Metropolitan Univ., <sup>2</sup>Dept. Nutr. Sci., Fac. Home Ecol., Yasuda Women's Univ.)

**1. Taxonomy / Epidemiology / Infectious diseases  
-a. Phylogenetics, taxonomy and strain typing**

**P2-001**

**Two novel species of the genus *Pantoea* showed different siderophore productivity**

○Ryo Kutsuna<sup>1</sup>, Tohru Miyoshi-Akiyama<sup>2</sup>, Yuki Muramatsu<sup>3</sup>, Junko Tomida<sup>1</sup>, Ken Kikuchi<sup>4</sup>, Yoshiaki Kawamura<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Pharm., Aichi Gakuin Univ., <sup>2</sup>Dept. Infect. Dis, Nat. Cent. Global Health Med., <sup>3</sup>Biol. Resour. Ctr., Natl. Inst. Technol. Evaluation., <sup>4</sup>Dept. Infectious Diseases, Tokyo Women's Medical Univ.)

**P2-002**

**Phylogenetic characteristics of *Salmonella Choleraesuis* isolated from swine in Japan and overseas**

○Nobuo Arai<sup>1</sup>, Yukino Tamamura<sup>1</sup>, Ayako Watanabe<sup>1</sup>, Taketoshi Iwata<sup>1</sup>, Anna Momoki<sup>1</sup>, Masahiro Kusumoto<sup>1,2</sup> (<sup>1</sup>Natl. Inst. Anim. Health, NARO, <sup>2</sup>Grad. Sch. Vet. Sci., Osaka Metro. Univ.)

**P2-003**

**Whole Genome Analysis of Zoonotic Transmission of LA-MRSA from Pigs to Humans in Thailand**

○Pawarut Narongpun<sup>1</sup>, Pattrarat Chanchaithong<sup>2</sup>, Junya Yamagishi<sup>3</sup>, Chie Nakajima<sup>1</sup>, Yasuhiko Suzuki<sup>1</sup> (<sup>1</sup>Div. Bioresources, IIZC., Hokkaido Univ., <sup>2</sup>Dept. Vet. Microbiol., Fac. Vet. Sci., Chula Univ., <sup>3</sup>Div. Collab. Edu., IIZC., Hokkaido Univ.)

**P2-004**

**Prevalence of *Listeria monocytogenes* in frozen vegetables retailed in Japan**

○Yumiko Okada<sup>1</sup>, Hodaka Suzuki<sup>2</sup>, Ai Watanabe<sup>2</sup>, Mirei Nakaniwa<sup>2</sup>, Yoshika Momose<sup>1,2</sup> (<sup>1</sup>Div. Biomedical Food Res., Nat. Inst. Health Sci., <sup>2</sup>Col. Agric. Ibaraki Univ.)



**P2-005****The identification and prevalence of the astA variants in *Escherichia coli***

○Tadasuke Ooka<sup>1</sup>, Yasuhiro Gotoh<sup>2</sup>, Tetsuya Hayashi<sup>2</sup>, Junichiro Nishi<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Grad. Sch. Med. Dent. Sci., Kagoshima Univ., <sup>2</sup>Dept. Bacteriol., Grad. Sch. Med. Sci., Kyushu Univ.)

**P2-006****Comparative Genomic Analysis of Macrolide Resistant *Bordetella pertussis* Isolated in Japan**

○Kentaro Koide<sup>1</sup>, Yumi Uchitani<sup>2</sup>, Takahiro Yamaguchi<sup>3</sup>, Nao Otsuka<sup>1</sup>, Masataka Goto<sup>1</sup>, Tsuyoshi Kenri<sup>1</sup>, Kazunari Kamachi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. II., Natl. Inst. Infect. Dis., <sup>2</sup>Div. Microbiol., Tokyo Metropol. Inst. Public Health., <sup>3</sup>Div. Microbiol., Osaka Inst. Public Health.)

**P2-007****GENOMIC ANALYSIS OF A VANCOMYCIN-INTERMEDIATE MRSA FROM PACEMAKER-ASSOCIATED SEPTICEMIA, HOKKAIDO**

○Noriko Urushibara, Meiji Soe Aung, Mitsuyo Kawaguchiya, Nobumichi Kobayashi (Dept. Hygiene, Sch. Med., Sapporo Medical Univ.)

**P2-008****Phylogenetic analysis of a pathogen candidate "IOLA" detected in pediatric nasal discharge**

○Kazumasa Fukuda<sup>1</sup>, Kaoru Haro<sup>1</sup>, Kei Yamasaki<sup>2</sup>, Mitsumasa Saito<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., UOEH Univ., <sup>2</sup>Dept. Respir. Med., Sch. Med., UOEH Univ.)

**P2-009****Antifungal susceptibility profiles of two fungemia-causing and one nonpathogenic *Starmerella* species**

○Daiki Kano<sup>1</sup>, Yuka Nagatsuka<sup>1</sup>, Sayaka Ban<sup>2</sup>, Yuhki Sato<sup>1</sup> (<sup>1</sup>Sch. Pharm. Sci., Fukuyama Univ., <sup>2</sup>Med. Mycology. Research. Center Chiba Univ.)

**P2-010****Molecular Epidemiology of *Mycobacterium bovis* in North-Eastern Parts of Nigeria Abstract**

○David Barnes<sup>1</sup>, Mohammed Damina<sup>2</sup>, Yasuhiko Suzuki<sup>1</sup>, Chie Nakajima<sup>1</sup> (<sup>1</sup>Div. Bioresources, Grad. Sch. Infectious Diseases, Hokkaido Univ., <sup>2</sup>Div. Bioresources, Grad. Sch. Infectious Diseases, Hokkaido Univ.)

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**1. Taxonomy / Epidemiology / Infectious diseases**  
**-b. Epidemiology and molecular epidemiology**

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**P2-011****Comparative genomic analysis of *Leptospira* spp. isolated from rats in East Asian countries**

○Nobuo Koizumi<sup>1</sup>, Masatomo Morita<sup>1</sup>, Makoto Ohnishi<sup>1</sup>, Yukihiro Akeda<sup>1</sup>, Kozue Miura<sup>2</sup> (<sup>1</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis., <sup>2</sup>GSALS, Tokyo Univ.)

**P2-012****The first report of nontoxigenic tox-bearing strain of *Corynebacterium rouxii***

○Masahiro Yutani<sup>1</sup>, Takashi Kikuchi<sup>2</sup>, Masatomo Morita<sup>3</sup>, Masaaki Iwaki<sup>1,4</sup>, Mitsutoshi Senoh<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. II, National Inst. Infect. Dis., <sup>2</sup>Div. Bacteriol., Chiba Pref. Inst. Public Health, <sup>3</sup>Dep. Bacteriol. I, National Inst. Infect. Dis., <sup>4</sup>Management Dep. Biosafety, Lab. Animal, and Pathog. Bank, National Inst. Infect. Dis.)

**P2-013****mP-BIT typing of *Campylobacter* strains from food-poisoning patients and their biofilm formation**

○Hiromi Nakamura<sup>1</sup>, Atsuko Akiyoshi<sup>1</sup>, Kaori Yamamoto<sup>1</sup>, Kaoru Umeda<sup>1</sup>, Jun Ogasawara<sup>1</sup>, Yuji Hirai<sup>1</sup>, Ryohei Nomoto<sup>2</sup>, Hiroshi Asakura<sup>3</sup> (<sup>1</sup>Microbiology Section, Osaka Institute of Public Health, <sup>2</sup>Div. Biomed. Food Res., NIHS, <sup>3</sup>Dep. Infect. Dis., Kobe Inst. Health)

**P2-014****Within-host diversity of *Escherichia albertii* in wild raccoons**

○Atsushi Hinenoya<sup>1,2,3</sup>, Moeko Yamazaki<sup>2</sup>, Bingting Xu<sup>3</sup>, Sharda Awasthi<sup>1</sup>, Noritoshi Hatanaka<sup>1,2,3</sup>, Shinji Yamasaki<sup>1,2,3</sup> (<sup>1</sup>Grad. Sch. Vet. Sci., Osaka Met. Univ., <sup>2</sup>Sch. Life Environ. Sci., Osaka Pref. Univ., <sup>3</sup>Grad. Sch. Life Environ. Sci., Osaka Pref. Univ.)

**P2-015****Molecular epidemiological study of ESBL-producing *Escherichia coli* in Niigata Prefecture**

○Yoshihiko Maeyama (Kotobiken Medical Laboratories, Inc.)

**P2-016****Molecular epidemiological survey of ESBL-producing *Escherichia coli* in Niigata Prefecture**

○Yoshihiko Maeyama<sup>1</sup>, Ryuuichirou Komata<sup>1</sup>, Naoki Wakui<sup>1</sup>, Masayuki Otsuka<sup>1</sup>, Akihito Nishiyama<sup>2</sup>, Sohkiichi Matsumoto<sup>2</sup> (<sup>1</sup>Kotobiken Medical Laboratories, Inc., <sup>2</sup>Dept. Bacteriol., Sch. Med., Niigata Univ.)

**P2-017****Selective encapsulation of lipotoxin into membrane vesicles from *Pseudomonas aeruginosa* biofilm**

○Keita Takei<sup>1</sup>, Keisuke Haneda<sup>2</sup>, Mizuki Kanno<sup>1</sup>, Hiroyuki Futamata<sup>1,3</sup>, Yosuke Tashiro<sup>1,4</sup> (<sup>1</sup>Grad. Sch. Intgr. Sci. Tech. Shizuoka Univ., <sup>2</sup>Dept. Appl. Chem. Biochem. Eng. Shizuoka Univ., <sup>3</sup>Res. Inst. Green Sci. Tech. Shizuoka Univ., <sup>4</sup>JST PRESTO)

1. Taxonomy / Epidemiology / Infectious diseases  
-c. Isolation and characterization of clinical isolates

**P2-018**

**Mechanism of surface antigen conversion in hard tick-born relapsing fever group *Borrelia* spp.**

○Tomohi Takeuchi<sup>1</sup>, Yasuhiro Gotoh<sup>2</sup>, Tetsuya Hayashi<sup>2</sup>, Hiroki Kawabata<sup>3</sup>, Ai Takano<sup>1</sup> (<sup>1</sup>Dept. Epi., Vet. Med., Yamaguchi Univ., <sup>2</sup>Dept. Bacterial, Kyushu Univ, <sup>3</sup>Bacteriology-I, Nat. Inst. Infect. Dis)

**P2-019**

**A point mutation on *tehA* increases tellurite resistance in enterohemorrhagic *Escherichia coli* O157**

○Ken-ichi Lee<sup>1</sup>, Hayato Honjo<sup>1,2</sup>, Ryuya Akasaka<sup>1,2</sup>, Yuko Matsumoto<sup>3</sup>, Mitsumasa Koizumi<sup>3</sup>, Sumio Sato<sup>4</sup>, Yukihiko Akeda<sup>1</sup>, Makoto Ohnishi<sup>1</sup>, Sunao Iyoda<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. 1, Natl. Inst. Infect. Dis., <sup>2</sup>Tokyo Coll. Biotech., <sup>3</sup>Yokohama Inst. Pub. Health, <sup>4</sup>Japan Biosciences Co., Ltd.)

**P2-020**

**Isolation and Characterization of a Novel Broad-host-range Bacteriophage Infecting *Escherichia coli***

○Shinjiro Ojima<sup>1</sup>, Azumi Tamura<sup>1</sup>, Wakana Yamashita<sup>1</sup>, Aa Haeruman Azam<sup>1</sup>, Kohei Kondo<sup>2</sup>, Tomohiro Nakamura<sup>1</sup>, Hidetomo Iwano<sup>3</sup>, Yoshimasa Takahashi<sup>1</sup>, Koichi Watashi<sup>1</sup>, Kotaro Kiga<sup>1</sup> (<sup>1</sup>Res. Ctr. Drug Vaccine Dev., Natl. Inst. Infect. Dis., <sup>2</sup>AMR Res. Ctr., Natl. Inst. Infect. Dis., <sup>3</sup>Lab. Vet. Biochem. Dept. Vet. Med., Rakuno Gakuen. Univ.)

**P2-021**

**Characterization of *Rodentibacter* sp. that is closely related to *Rodentibacter haemolyticus***

○Hiraku Sasaki<sup>1</sup>, Hidehiro Ueshiba<sup>2</sup>, Naoko Yanagisawa<sup>2</sup>, Hiroki Ishikawa<sup>3</sup>, Masayuki Iyoda<sup>3,4</sup>, Fumio Ike<sup>5</sup> (<sup>1</sup>Dept. Health Sci., Sch. Health Sci., Sports Sci., Juntendo Univ., <sup>2</sup>Dept. Microbiol. Immunol. Sch. Med., Tokyo Women's Med. Univ., <sup>3</sup>Dept. Microbiol. Immunol., Sch. Med., Showa Univ., <sup>4</sup>Div. Nephrol., Sch. Med., Showa Univ., <sup>5</sup>Riken BRC)

**P2-022**

**The lipidic feature of fish-infected acid-fast bacteria**

○Nagatoshi Fujiwara<sup>1</sup>, Makoto Nakaya<sup>2</sup>, Minoru Ayata<sup>3</sup>, Hanako Fukano<sup>4</sup>, Yoshihiko Hoshino<sup>4</sup>, Shinji Maeda<sup>5</sup> (<sup>1</sup>Dept. Food and Nutrition, Facul. Contemporary Human Life Science, Tezukayama Univ., <sup>2</sup>Organization for Res. Promotion, Osaka Metropolitan Univ., <sup>3</sup>Dept. Virol., Osaka Metropolitan Univ. Grad. Sch. Med., <sup>4</sup>Leprosy Res. Cent., Nat. Inst. Infec. Dis., <sup>5</sup>Facul. Pharm., Hokkaido Univ. Sci.)

1. Taxonomy / Epidemiology / Infectious diseases  
-d. Methods for detection, identification, and diagnosis

**P2-023**

**The development of a selective enrichment for the detection of *Escherichia albertii* in food**

○Shouhei Hirose<sup>1</sup>, Yukiko Nakamura<sup>2</sup>, Sakura Arai<sup>1</sup>, Yukiko Hara-Kudo<sup>1</sup> (<sup>1</sup>Div. Microbiol., Natl. Inst. Health Sci., <sup>2</sup>Otsu City Public Health Center)

**P2-024**

**Evaluation of a lateral-flow immunoassay for multiple carbapenemase-producing Gram-negative bacteria**

○Satoshi Nishida<sup>1</sup>, Yasuo Ono<sup>1,2</sup>, Yusuke Yoshino<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Sch. Med., Teikyo Univ., <sup>2</sup>Faculty Health Med. Sci., Teikyo Heisei Univ.)

**P2-025**

**Improvement of PCR-serotyping of *Legionella pneumophila***

○Junko Amemura-Maekawa<sup>1</sup>, Rieka Morinaka<sup>2</sup>, Yukihiko Akeda<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis., <sup>2</sup>Fasmac Co., Ltd.)

**P2-026**

**Loop-Mediated Isothermal Amplification system for rapid detection of *Corynebacterium ulcerans***

○Miyuki Kimura<sup>1</sup>, Masaaki Iwaki<sup>2</sup>, Akihiko Yamamoto<sup>2</sup>, Tsuyoshi Kenri<sup>1</sup>, Mitsutoshi Senoh<sup>1</sup> (<sup>1</sup>Dept. Bacteriology II, National Institute of Infectious Diseases, <sup>2</sup>Management Dept. Biosafety, Laboratory Animal, and Pathogen Bank, National Institute of Infectious Diseases)

**P2-027**

**Development of in vitro method for specific toxicity test of diphtheria toxoid**

○Mitsutoshi Senoh<sup>1</sup>, Masaaki Iwaki<sup>2</sup>, Akihiko Yamamoto<sup>2</sup>, Noriko Shimasaki<sup>3</sup>, Tsuyoshi Kenri<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. II, Natl. Inst. Infect. Dis., <sup>2</sup>Mgmt. Dept. Biosafety, Lab. Anim., and Pathog. Bank, Natl. Inst. Infect. Dis., <sup>3</sup>Dept. Virol. III, Natl. Inst. Infect. Dis.)

**P2-028**

**Comprehensive and Rapid Identification of Nontuberculous Mycobacterium**

○Yuki Matsumoto<sup>1</sup>, Kiyoharu Fukushima<sup>2</sup>, Daisuke Motooka<sup>1</sup>, Takeshi Kinjo<sup>3</sup>, Hiroshi Kida<sup>4</sup>, Shota Nakamura<sup>1</sup> (<sup>1</sup>Dept. Infection Metagenomics, RIMD, Osaka Univ., <sup>2</sup>Dept. Host Defence, iFReC, Osaka Univ., <sup>3</sup>Univ. of Ryukyus, <sup>4</sup>Osaka Toneyama Medical Center)

**P2-029****Synthesis of Bacteriophages Enabling the Detection of *Escherichia Coli* O157:H7**

○Azumi Tamura<sup>1,2,3</sup>, Aa Haeruman Azam<sup>1</sup>, Shinjiro Ojima<sup>1</sup>, Kohei Kondo<sup>1,4</sup>, Tomohiro Nakamura<sup>1</sup>, Wakana Yamashita<sup>1</sup>, Koichi Watashi<sup>1</sup>, Yoshimasa Takahashi<sup>1</sup>, Hiroshi Yotsuyanagi<sup>2,3</sup>, Kotaro Kiga<sup>1,5</sup> (<sup>1</sup>Res. Ctr. Drug Vaccine Dev., Natl. Inst. Infect. Dis., <sup>2</sup>Dept. Comp. Biol. Med. Sci., Grad. Sch. Front. Sci., Univ. of Tokyo, <sup>3</sup>Div. Infect. Dis., Inst. of Med. Sci., Univ. of Tokyo, <sup>4</sup>AMR Res. Ctr., Natl. Inst. Infect. Dis., <sup>5</sup>Div. Bacteriol. Sch. Med., Jichi Med. Univ.)

**P2-030****Development of the early diagnosis of Deep Mycosis with Microbial Volatile Organic Compounds (MVOs)**

○Tamao Kondo, Shinichi Iwaguchi (Dept. Bio. Sci., Nara Women's Univ.)

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**1. Taxonomy / Epidemiology / Infectious diseases  
-e. Others**


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**P2-031****Botulism caused by botulinum neurotoxin type F(BoNT/F)-producing *Clostridium baratii* in Tokyo, Japan**

○Chie Monma, Satomi Uehara, Wakaba Okada, Natsumi Furuta, Dai Saiki, Maeda Masako, Satoru Akase, Hiromi Obata, Keiko Yokoyama, Kenji Sadamasu (Dept. Microbiol., Tokyo Metropolitan Institute of Public Health)

**P2-032****Association between gingivitis and oral spirochetes in young cats**

○Masato Tachibana<sup>1</sup>, Seiya Yamaki<sup>2,3</sup>, Hisae Hachimura<sup>2</sup>, Masao Ogawa<sup>2</sup>, Shinya Kanegae<sup>2</sup>, Hirokazu Amimoto<sup>2</sup>, Kenta Watanabe<sup>3,4</sup>, Masahisa Watarai<sup>3,4</sup>, Akiteru Amimoto<sup>2</sup> (<sup>1</sup>Org. Res. Initiatives, Yamaguchi Univ., <sup>2</sup>Amica Pet Clinic, <sup>3</sup>Joi. Grad. Sch. Vet. Med., Yamaguchi Univ., <sup>4</sup>Lab. Vet. Pub. Heal., Joi. Fac. Vet. Med., Yamaguchi Univ.)

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**2. Ecology**


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**-a. Ecology, symbiosis and environmental microbes****P2-033****Bacteria-host interactions mediated by membrane vesicles produced by gut microbiota**

○Miku Matsushita<sup>1</sup>, Kaoru Kikuchi<sup>1</sup>, Nozomu Obana<sup>2,3</sup>, Nobuhiko Nomura<sup>3,4</sup> (<sup>1</sup>Coll. Agro-Biol. Resour. Sci., Sch. Life Environ. Sci., Univ. Tsukuba, <sup>2</sup>TMRC, Fac. Med., Univ. Tsukuba, <sup>3</sup>MiCS, Univ. Tsukuba, <sup>4</sup>Fac. Life Environ., Sci Univ. Tsukuba)

**P2-034*****F. nucleatum* promotes epithelial-mesenchymal transition in murine NMuMg breast cancer cells**

○Akihiro Nakamura<sup>1</sup>, Yutaka Horiuchi<sup>1</sup>, Okihide Suzuki<sup>2</sup>, Akihiro Yoshida<sup>3</sup>, Takashi Murakami<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., Saitama Medical Univ., <sup>2</sup>Dept. Digestive Tract and General Surgery, Sch. Med., Saitama Medical Univ., <sup>3</sup>Dept. Oral Microbiol., Matsumoto Dental Univ.)

**P2-035****Symbiotic bacteria pass through narrow space with flagella wrapping**

○Aoba Yoshioka<sup>1</sup>, Tetsuo Kan<sup>2</sup>, Yoshitomo Kikuchi<sup>3</sup>, Daisuke Nakane<sup>1</sup> (<sup>1</sup>Dept. Eng. Sci., UEC, <sup>2</sup>Dept. Mech. and Int. Sys. Eng., UEC, <sup>3</sup>Dept. BPRI, AIST)

**P2-036****Dual motors enable Type-IV-pilus dependent rheotaxis**

○Naoki Uemura<sup>1</sup>, Masatada Tamakoshi<sup>2</sup>, Daisuke Nakane<sup>1</sup> (<sup>1</sup>Dept. Eng. Sci., UEC., <sup>2</sup>Dept. Mol. Biol., TUPLS.)

**P2-037****Influencing factors against microbiome in a controlled built environment**

○Kenken Ko<sup>1</sup>, Makiko Nakajima<sup>2</sup>, So Fujiyoshi<sup>1,4</sup>, Yukiko Nishiuchi<sup>1</sup>, Ishara Uhanie Perera<sup>1</sup>, Makoto Kokubo<sup>3</sup>, Daisuke Ogura<sup>3,4</sup>, Fumito Maruyama<sup>1,4</sup> (<sup>1</sup>IDEC Inst., Hiroshima Univ., <sup>2</sup>Facu. Engineer., Hiroshima Insti. Tech., <sup>3</sup>Grad. Sch. Engineer., Kyoto Univ., <sup>4</sup>CHOBE, Hiroshima Univ.)

**P2-038****The outer membrane uptake mechanism for plant-derived aromatics in Sphingomonadaceae**

○Masaya Fujita<sup>1,2</sup>, Koki Shibata<sup>2</sup>, Shojiro Hishiyama<sup>3</sup>, Mikio Tanabe<sup>1</sup>, Toshiya Senda<sup>1</sup>, Naofumi Kamimura<sup>2</sup>, Eiji Masai<sup>2</sup> (<sup>1</sup>SBRC, IMSS, KEK, <sup>2</sup>Dept. Mater. Sci. Biotechnol., Nagaoka Univ. Technol., <sup>3</sup>Fore. Res. Manag. Org.)

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**2. Ecology -b. Microbiota**


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**P2-039****Effect of gut microbiota on dyslipidemia and inferred causal relationship in Japanese men and woman**

○Yuna Miyajima<sup>1</sup>, Shigehiro Karashima<sup>2</sup>, Kazuhiro Ogai<sup>1</sup>, Kohei Ogura<sup>3</sup>, Hidetaka Nambo<sup>4</sup>, Takashi Yoneda<sup>2</sup>, Hiromasa Tsujiguchi<sup>5</sup>, Hiroyuki Nakamura<sup>5</sup>, Akinori Hara<sup>5</sup>, Shigefumi Okamoto<sup>1,3</sup> (<sup>1</sup>Dept. Clin. Lab. Sci., Sch. Med. Sci., Kanazawa Univ., <sup>2</sup>Dep. Health Prom. and Med. of the Future, Kanazawa Univ., <sup>3</sup>Adv. Health Care Sci. Research Unit, Inst. for Frontier Sci. Initiative, Kanazawa Univ., <sup>4</sup>Sch. Elect., Inform., Commun. Eng., sch. Sci. Eng., Kanazawa Univ., <sup>5</sup>Dept. Environ. Prev. Med., Adv. Prev. Med. Sci., Kanazawa Univ.)

**P2-040****Changes in gastrointestinal microflora in the *Helicobacter pylori* infection model using MPS mice**

○Fuhito Hojo<sup>1</sup>, Hideo Yonezawa<sup>2</sup>, Kentaro Oka<sup>3</sup>, Motomichi Takahashi<sup>3</sup>, Satoshi Kurata<sup>4</sup>, Tomoko Hanawa<sup>5</sup>, Shigeru Kamiya<sup>3</sup>, Jiro Mitobe<sup>5</sup>, Takako Osaki<sup>5</sup> (<sup>1</sup>Inst, Lab. Anim. Facilt., Kyorin Univ. Sch. Med., <sup>2</sup>Dept. Microbiol., Tokyo Dental Col., <sup>3</sup>Central Research Inst., Miyarisan Pharma. Co., Ltd., <sup>4</sup>Div. Microbial., Dept. Med Technol., Fac. Health Sci., Kyorin Univ., <sup>5</sup>Inst, Lab. Anim. Facilt., Kyorin Univ. Sch. Med.)

**P2-041****Reactivity of serum IgG to fecal microbes in ulcerative colitis patients**

○Haruyuki Imaohji<sup>1</sup>, Koichi Takahashi<sup>1,2</sup>, Ayano Tada<sup>1</sup>, Tomomi Kuwahara<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., Kagawa Univ., <sup>2</sup>Dept. Pharmacy, Kagawa Univ. Hospital)

**P2-042****Changes of fecal microbiota and organic acid concentrations in baby and influencing factors**

Sayuko Kagawa<sup>1</sup>, Ryuji Ishikawa<sup>1</sup>, Toshiyuki Yasui<sup>2</sup>, Akiko Sakurai<sup>1</sup>, ○Keiko Kataoka<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Genetic Anal., Sch. Health Sci., Tokushima Univ., <sup>2</sup>Dept. Reprod. Menopos. Med., Sch. Health Sci., Tokushima Univ.)

**P2-043****Relationship between tongue microbiota composition of elderly adults and tooth loss**

○Mikari Asakawa<sup>1</sup>, Toru Takeshita<sup>1,2</sup>, Shinya Kageyama<sup>1</sup>, Michiko Furuta<sup>1</sup>, Yoshihisa Yamashita<sup>1</sup> (<sup>1</sup>Sect. of Prev. Dent. Fac. Dent. Sci., Kyushu Univ., <sup>2</sup>OBT Res. Cen., Fac. Dent. Sci., Kyushu Univ.)

**P2-044****Oral microbiota profiles in 1.5-year-old infants by full-length 16S rRNA gene analysis**

○Shinya Kageyama, Michiko Furuta, Jiale Ma, Toru Takeshita, Mikari Asakawa, Yoshihisa Yamashita (Sect. Prevent. Dent. Public Health, Grad. Sch. Dent., Kyushu Univ.)

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## 2. Ecology -c. Growth and culture conditions

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**P2-045****Bioactive compounds from toothpicks promote pellicle formation of *Bacillus subtilis***

○Tomoki Kosaki<sup>1</sup>, Kazuya Ishikawa<sup>2</sup>, Kazuyuki Furuta<sup>2</sup>, Chikara Kaito<sup>2</sup> (<sup>1</sup>Lab. Mol. Biol., Fac. Parm., Okayama Univ., <sup>2</sup>Lab. Mol. Biol., Grad. Sch. Med. Dent. Parm., Okayama Univ.)

**P2-046****Is Strengthening Hygiene Management on Chicken Farms Effective in Reducing Pathogenic Microbes?**

○Tomoya Yamamoto<sup>1</sup>, Hajime Toyofuku<sup>2</sup>, Tomoko Mizote<sup>1</sup> (<sup>1</sup>Dept. Food Nutrition Yamaguchi Prefect. Univ., <sup>2</sup>Dept. Human Nutrition, Yamaguchi Prefect. Univ.)

**P2-047****Effect of D-fructose on the adhesive property of *Fusobacterium nucleatum* to host cells**

○Ayano Tada, Haruyuki Imaohji, Tomomi Kuwahara (Dept. Microbiol., Med., Kagawa Univ.)

**P2-048****Gene expression analysis during the conversion from a VBNC to culturable state in *Vibrio cholerae***

○Alafate Ayibieke<sup>1</sup>, Ayae Nishiyama<sup>1</sup>, Mitsutoshi Senoh<sup>2</sup>, Takashi Hamabata<sup>1</sup> (<sup>1</sup>Dept. Infect. Dis., NCGM, <sup>2</sup>Dept. Bact. II, NIID)

**P2-049****Competition between *Staphylococcus aureus* and commensal bacteria modulated by free fatty acids**

○Akiko Tajima<sup>1,2</sup>, Yuki Kinjo<sup>1,2</sup> (<sup>1</sup>Dept. Bacteriol., The Jikei Univ. Sch. Med., <sup>2</sup>Jikei Ctr. Biofilm Sci. & Tech)

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## 2. Ecology -d. Others

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**P2-050****The *ytpI* knockout *Bacillus subtilis* inhibit *Escherichia coli* growth**

○Tomonori Kano<sup>1</sup>, Kazuya Ishikawa<sup>2</sup>, Kazuyuki Furuta<sup>2</sup>, Chikara Kaito<sup>2</sup> (<sup>1</sup>Lab. Mol. Biol., Fac. Pharm., Okayama Univ., <sup>2</sup>Lab. Mol. Biol., Grad. Sch. Med. Dent. Pharm., Okayama Univ.)

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## 3. Physiology / Structural biology

**-a. Metabolism, biosynthesis and metabolome****P2-051****The effect of succinic acid on *Campylobacter jejuni* infection**

○Mana Makimoto<sup>1</sup>, Shiho Fukushima<sup>1</sup>, Saki Yamanaka<sup>1</sup>, Takaaki Shimohata<sup>1,2</sup>, Takashi Uebanso<sup>1</sup>, Kazuaki Mawatari<sup>1</sup>, Akira Takahashi<sup>1</sup> (<sup>1</sup>Dept. Prevent. Environ. Nutr., Inst. Biomed. Sci., Tokushima Univ. Grad. Sch., <sup>2</sup>Marine Bio., Fukui Prefect Univ.)

**P2-052****Involvement of ferrisiderophore receptors in Fe(II) uptake in *Ralstonia pseudosolanacearum***

○Yuki Terazawa<sup>1</sup>, Sora Tateda<sup>1</sup>, Miono Tsuji<sup>1</sup>, Akinori Kiba<sup>1</sup>, Kouhei Ohnishi<sup>1</sup>, Kenji Kai<sup>2</sup>, Masayuki Tsuzuki<sup>1</sup>, Yasufumi Hikichi<sup>1</sup> (<sup>1</sup>Fac. Agric. & Marine Sci., Kochi Univ., <sup>2</sup>Grad. Sch. Agric., Osaka Met. Univ.)

**P2-053****Functional analysis of DnaK chaperone system in *Brevibacillus brevis***

○Ryota Okamoto<sup>1</sup>, Toshifumi Tomoyasu<sup>1,2</sup>, Atsushi Tabata<sup>1,2</sup>, Hideaki Nagamune<sup>1,2</sup> (<sup>1</sup>Div. Bioresour. Sci., Grad. Sch. Sci. & Tech. for Innov., Tokushima Univ., <sup>2</sup>Div. Biosci. & Bioindust., Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ.)

**P2-054****Pyruvate kinase mediates fosfomycin resistance in *Streptococcus pneumoniae***

○Atsushi Taguchi, Ryosuke Nakashima, Kunihiko Nishino  
(SANKEN (The Institute of Scientific and Industrial Research),  
Osaka Univ.)

**P2-055****Reactivation effects of serum albumin to viable but non-culturable *Mycobacterium tuberculosis***

○Yuta Morishige<sup>1</sup>, Yoshiro Murase<sup>1</sup>, Kinuyo Chikamatsu<sup>1</sup>,  
Hiroyuki Yamada<sup>1</sup>, Akio Aono<sup>1</sup>, Yuriko Igarashi<sup>1</sup>, Akiko Takaki<sup>1</sup>,  
Satoshi Mitarai<sup>1,2</sup> (<sup>1</sup>Dept. Mycobac. Ref. Res., Res. Inst.  
Tubercul., JATA, <sup>2</sup>Dept. Basic Mycobacteriol., Grad. Sch.  
Biomed. Sci., Nagasaki Univ.)

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**3. Physiology / Structural biology -b. Motility**


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**P2-056****Interaction of an initiation factor *Vibrio* FlhF for flagellar formation with a MS ring protein FliF**

○Yuria Fukushima, Michio Homma, Seiji Kojima (Div. Biol. Sci.,  
Grad. Sch. Sci., Nagoya Univ.)

**P2-057*****Spiroplasma* swimming mechanism suggested by fluorescently labeled MreB in a synthetic bacterium**

○Yoshiki Tanaka<sup>1</sup>, Hana Kiyama<sup>1</sup>, Yu-hei Tahara<sup>1,2</sup>, Atsuko  
Uenoyama<sup>1</sup>, Makoto Miyata<sup>1,2</sup> (<sup>1</sup>Grad. Sch. Sci., Osaka  
Metropolitan Univ., <sup>2</sup>OCARINA, Osaka Metropolitan Univ.)

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**3. Physiology / Structural biology**


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**-c. Signal transduction (intracellular and intercellular)****P2-058/W11-8**

Withdrawal

**P2-059/W11-2****Analysis of chemotaxis to metabolites of intestinal bacteria in *Vibrio parahaemolyticus***

○Hiroyuki Terashima, Toshio Kodama (Dept. Bacteriol., Inst.  
Trop. Med. (NEKKEN), Nagasaki Univ.)

**P2-060/W11-1****Small RNA delivery by extracellular vesicles in *Klebsiella pneumoniae***

○Shogo Tsubaki<sup>1</sup>, Juntaro Matsuzaki<sup>2</sup>, Yusuke Yoshioka<sup>3</sup>,  
Takuma Araki<sup>4</sup>, Hitoshi Tsugawa<sup>1</sup> (<sup>1</sup>Dept. Host Defense., Sch.  
Med., Tokai Univ., <sup>2</sup>Dept. Pharmacotherapeutics., Sch. Pharm.,  
Keio Univ., <sup>3</sup>Dept. Mol. Cell. Med., Inst. Med., Tokyo Medical  
Univ., <sup>4</sup>Dept. Med. Sci. Coll. Office., Sch. Med., Tokai Univ.)

**P2-061/W11-4****Comparative transcriptomics for the infection mechanism of *Ralstonia pseudosolanacearum* strain OE1-1**

○Masayuki Tsuzuki<sup>1</sup>, Chika Takemura<sup>1</sup>, Wakana Senuma<sup>1</sup>, Yuki  
Terazawa<sup>1</sup>, Sora Tateda<sup>1</sup>, Yuri Abe<sup>1</sup>, Akinori Kiba<sup>1</sup>, Kouhei  
Ohnishi<sup>1</sup>, Kenji Kai<sup>2</sup>, Yasufumi Hikichi<sup>1</sup> (<sup>1</sup>Fac. Agric. Marine Sci.,  
Kochi Univ., <sup>2</sup>Grad. Sch. Agric., Osaka Met. Univ.)

**P2-062****Divalent cations are involved in citrate recognition by the *Salmonella*-specific chemoreceptor Tcp**

○Fuga Omori<sup>1</sup>, Mariko Matsuda<sup>1</sup>, Katsumi Imada<sup>2</sup>, Hiroataka  
Tajima<sup>3,4</sup>, Ikuro Kawagishi<sup>1,3,4</sup> (<sup>1</sup>Grad. Sch. Sci. and Engin.,  
Hosei Univ., <sup>2</sup>Grad. Sch. Sci., Osaka Univ., <sup>3</sup>Dept. Biosci. and  
Appl. Chem., Hosei Univ., <sup>4</sup>Res. Cen. Micro-Nano Tech., Hosei  
Univ.)

**P2-063****Connecting signal transduction and stress tolerance in *Campylobacter jejuni***

○Yoko Eguchi<sup>1,2</sup>, Kanta Hamaguchi<sup>1</sup>, Mao Ueyama<sup>2</sup>, Yua  
Sakurai<sup>2</sup>, Yuika Terada<sup>2</sup>, Moena Takamatsu<sup>2</sup> (<sup>1</sup>Grad. Sch. BOST,  
Kindai Univ., <sup>2</sup>Dept. Sci. Tech. Food Safety, BOST, Kindai Univ.)

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**3. Physiology / Structural biology -d. Cell surface structure, membrane structures and cytoskeleton**


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**P2-064****Structure and Function of MurJ flippase essential for peptidoglycan synthesis**

○Hidetaka Kohga, Napathip Lertpreedakorn, Yoshiki Tanaka,  
Kunihito Yoshikaie, Katsuhide Taniguchi, Kei Fujimoto,  
Hironori Takeda, Ryoji Miyazaki, Tomoya Tsukazaki (Nara Inst.  
of Sci. and Tech.)

**P2-065****Analyzing cell division protein's interaction of cell wall-less bacteria**

○Taishi Kasai<sup>1</sup>, Yu-hei Tahara<sup>2</sup>, Makoto Miyata<sup>2</sup>, Daisuke  
Shiomi<sup>1</sup> (<sup>1</sup>Dept. Life Sci., Col. Sci., Rikkyo Univ., <sup>2</sup>Dept. Bio.,  
Grad. Sch. Sci., Osaka Met. Univ.)

**P2-066****AdcAII of Group A *Streptococcus* is required for zinc acquisition and virulence**

○Chihiro Aikawa, Akihide Shimizu, Kazunori Murase, Takashi  
Nozawa, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med.,  
Kyoto Univ.)

**P2-067****Relationship between membrane vesicle production and biofilm formation in *Pseudomonas aeruginosa***

○Mizuki Kanno<sup>1</sup>, Hiroyuki Futamata<sup>1,2</sup>, Yosuke Tashiro<sup>1,3</sup>  
(<sup>1</sup>Grad. Sch. Intgr. Sci. Tech. Shizuoka Univ., <sup>2</sup>Res. Inst. Green  
Sci. Tech. Shizuoka Univ., <sup>3</sup>JST PRESTO)

**P2-068****Characteristics of membrane vesicles are altered by stresses on cell surface in *Escherichia coli***

○Erika Suzuki<sup>1</sup>, Hiroyuki Futamata<sup>1,2</sup>, Yosuke Tashiro<sup>1,3</sup>  
(<sup>1</sup>Grad. Sch. Integr. Sci. Tech. Shizuoka Univ., <sup>2</sup>Res. Inst. Green Sci. Tech. Shizuoka Univ., <sup>3</sup>JST PRESTO)

**P2-069****Diversity and function of S-layer proteins produced by *Lactobacillus sp.* isolated from chicken feces**

○Aya Misaki, Akinobu Kajikawa (Dept. Agr. Chem., Appl. Bio. Sci., Tokyo Univ. Agr.)

**P2-070****Mechanism for de novo synthesized magnetosome positioning in *Magnetospirillum magneticum* AMB-1**

○Rino Shimoshige<sup>1</sup>, Azuma Taoka<sup>2,3</sup> (<sup>1</sup>Grad. Sch., Nat. Sci. Tech., Kanazawa Univ., <sup>2</sup>Fac. Biol. Sci. Tech., Inst. Sci. Eng., Kanazawa Univ., <sup>3</sup>NanoLSI, Kanazawa Univ.)

**3. Physiology / Structural biology****-e. Secretion and transport****P2-071/W11-5****Role of the cytoplasmic ATPase complex in export switching of the flagellar protein export apparatus**

○Tohru Minamino<sup>1</sup>, Miki Kinoshita<sup>1</sup>, Keiichi Namba<sup>1,2</sup> (<sup>1</sup>Grad. Sch. Front. Biosci., Osaka Univ., <sup>2</sup>Spring-8, RIKEN)

**P2-072****Analysis of BamA-BamC interactions by in vivo site-specific photo-crosslinking**

○Yuki Maruno, Thewasano Nakajohn, Edward Germany, Takuya Shiota (Inst TT Promo., Univ of Miyazaki)

**P2-073****Exploring conformational changes of multidrug efflux pumps in the membrane environment**

○Mikio Tanabe (Struct Biol. Res. Ctr. Inst. Mater. Struct. Sci. KEK)

**3. Physiology / Structural biology -f. Others****P2-074/W11-6****Phase separation of DNA via intrinsically disordered region of mycobacterial histone-like protein**

○Akihito Nishiyama, Yoshimi Meguro, Riku Manabe, Shigetada Kato, Yuriko Ozeki, Yoshitaka Tateishi, Sohkiichi Matsumoto (Dept. Bacteriol., Sch. Med., Niigata Univ.)

**P2-075/W11-3****Biological Effects of *Escherichia coli* derived extracellular vesicles on Group A *Streptococcus***

○Yu Kawagishi, Kazunori Murase, Ichiro Nakagawa (Dept. Microbiol., Grad. Sch. Med., Kyoto Univ.)

**P2-076****Characterization of stress-induced cell wall deficient bacterial cells in *Pseudomonas aeruginosa***

○Jun Harada<sup>1</sup>, Shusaku Kanematsu<sup>1</sup>, Nobuhiko Nomura<sup>2,3</sup>, Masanori Toyofuku<sup>2,3</sup> (<sup>1</sup>Grad. Sch. Life Environ. Sci., Univ., Tsukuba, <sup>2</sup>Fac. Life Environ. Sci., Univ., Tsukuba, <sup>3</sup>Mics, Univ. Tsukuba)

**P2-077****Long-wavelength luminescent membrane vesicles for in vivo imaging**

○Mayu Kimoto<sup>1</sup>, Chitose Oneyama<sup>2,5</sup>, Ryoma Nakao<sup>3</sup>, Hiroyuki Futamata<sup>1,4</sup>, Yosuke Tashiro<sup>1,5</sup> (<sup>1</sup>Grad. Sch. Integr. Sci. Tech., Shizuoka Univ., <sup>2</sup>Div. Cancer Cell Reg., Aichi Cancer Ctr. Res. Inst., <sup>3</sup>Dep. Bacteriol. I, NIID, <sup>4</sup>Res. Inst. Green Sci. Tech. Shizuoka Univ., <sup>5</sup>JST PRESTO)

**4. Genetics / Genomics / Biotechnology****-a. Genomics, bioinformatics and systems biology****P2-078****AAQiT: a user-friendly, web-based tool to improve the quality of bacterial genome annotation**

○Yuki Onuki<sup>1</sup>, Akio Chiba<sup>1,2</sup>, Amu Baba<sup>1</sup>, Honori Yamada<sup>1</sup>, Yasuhiro Tanizawa<sup>3</sup>, Yuki Kinjo<sup>1,2</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med., Jikei Univ., <sup>2</sup>Jikei Ctr. Biofilm Sci. & Tech., <sup>3</sup>Dept. Inform., Natl. Inst. Genet.)

**P2-079****Comparative genomic analysis reveals genetic feature of LT-producing *Escherichia fergusonii***

○Miki Okuno<sup>1</sup>, Nami Tsuru<sup>2</sup>, Shuji Yoshino<sup>2</sup>, Yasuhiro Gotoh<sup>3</sup>, Takeshi Yamamoto<sup>1</sup>, Tetsuya Hayashi<sup>3</sup>, Yoshitoshi Ogura<sup>1</sup> (<sup>1</sup>Dept. Infectious Med., Kurume Univ. Sch. Med., <sup>2</sup>Dept. Microbiol., Miyazaki Pref. Inst. Public Health and Env., <sup>3</sup>Dept. Bacteriology, Fac. Med. Sci., Kyushu Univ.)

**P2-080****Genome diversity of *Streptococcus dysgalactiae* and the evolutionary process with host switching**

○Kazunori Murase, Ryosuke Tsuge, Ichiro Nakagawa (Dept. Microbiol., Grad. Sc. Med., Kyoto Univ.)

**P2-081****Exploration and validation of mutations related to invasiveness of *Streptococcus pyogenes emm89***

○Masayuki Ono<sup>1</sup>, Masaya Yamaguchi<sup>1</sup>, Daisuke Motooka<sup>2</sup>, Yujiro Hirose<sup>1</sup>, Kotaro Higashi<sup>1</sup>, Tohru Miyoshi-Akiyama<sup>3</sup>, Tomoko Sumitomo<sup>1</sup>, Tadayoshi Ikebe<sup>4</sup>, Rumi Okuno<sup>5</sup>, Shigetada Kawabata<sup>1</sup> (<sup>1</sup>Osaka Univ. Grad. Sch. Dent., <sup>2</sup>Res. Inst. Microb. Dis., Osaka Univ., <sup>3</sup>Pathogenic Microbe Lab., Dept. Infectious Diseases, NCGM, <sup>4</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis., <sup>5</sup>Dept. Microbiol., Tokyo Inst. Pub. Heal.)

**P2-082****Genomic analysis of *Helicobacter cinaedi*-like bacteria isolated from raccoon dogs**

○Yasuhiro Gotoh<sup>1</sup>, Takako Taniguchi<sup>2</sup>, Keiji Nakamura<sup>1</sup>, Naoaki Misawa<sup>2</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriology, Fac. Med. Sci., Kyushu Univ., <sup>2</sup>CADIC, Univ. Miyazaki)

**4. Genetics / Genomics / Biotechnology -b. Horizontal gene transfer, mobile genetic element and evolution****P2-083****Plasmidome in the *Serratia marcescens* complex**

○Debra Satie Nagano, Tomoyuki Ono, Yasuhiro Gotoh, Keiji Nakamura, Itsuki Taniguchi, Tetsuya Hayashi (Dept. Bacteriology, Sch. Med., Kyushu Univ.)

**P2-084****Outer membrane vesicles in *Pseudomonas aeruginosa* strain PAO1 specifically contains Pf4 prophage DNA**

○Satoshi Takenawa<sup>1</sup>, Haruki Okumura<sup>2</sup>, Sotaro Takano<sup>1</sup>, Mizuki Kanno<sup>3</sup>, Yosuke Tashiro<sup>3</sup>, Akihiro Okamoto<sup>1</sup> (<sup>1</sup>NIMS. MANA., <sup>2</sup>Dept. Appl. Chem. Biochem. Eng., Shizuoka Univ., <sup>3</sup>Grad. Sch. Intgr. Sci. Tech. Shizuoka Univ.)

**P2-085****Delivery of prophage DNA through outer membrane vesicles in *Pseudomonas aeruginosa* strain PAO1**

○Haruki Okumura<sup>1</sup>, Satoshi Takenawa<sup>2</sup>, Sotaro Takano<sup>2</sup>, Mizuki Kanno<sup>3</sup>, Hiroyuki Futamata<sup>3</sup>, Akihiro Okamoto<sup>2</sup>, Yosuke Tashiro<sup>3</sup> (<sup>1</sup>Dept. Appl. Chem. Biochem. Eng., Shizuoka Univ., <sup>2</sup>NIMS. MANA, <sup>3</sup>Grad. Sch. Intgr. Sci. Tech. Shizuoka Univ.)

**4. Genetics / Genomics / Biotechnology  
-c. Gene regulation and transcriptome analysis****P2-086****Prophage excision switches primary ribosome rescue pathway and rearranges the proteome in *E. coli***

Haruka Onodera<sup>1</sup>, Tatsuya Niwa<sup>1,2</sup>, Hideki Taguchi<sup>1,2</sup>, ○Yuhei Chadani<sup>2</sup> (<sup>1</sup>Dept. Life Sci. and Tech., Tokyo Tech., <sup>2</sup>IIR, Tokyo Tech.)

**P2-087****Regulation of sRNA1 expression by ArcB/ArcA two-component regulatory system in *Vibrio alginolyticus***

○Takehiko Mima<sup>1</sup>, Moe Fujii<sup>1</sup>, Kazuyoshi Gotoh<sup>2</sup>, Yumiko Yamamoto<sup>2</sup>, Osamu Matsushita<sup>2</sup> (<sup>1</sup>Dept. Microbiol., Fac. Health Sci., Ehime Pref. Univ. Health Sci., <sup>2</sup>Dept. Bacteriol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci.)

**P2-088****The role of two-TetR regulator in Reutericyclin production of *Streptococcus mutans***

○Hideo Yonezawa<sup>1</sup>, Eitoyo Kokubu<sup>1</sup>, Yuichiro Kikuchi<sup>1</sup>, Jiro Mitobe<sup>2</sup>, Kazuyuki Ishihara<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Tokyo Dent. Col., <sup>2</sup>Dept. Infect. Dis., Sch. Med., Kyorin Univ.)

**P2-089****Small RNA GcvB governs the metabolism of the three aromatic amino acids in *Escherichia coli***

○Takeshi Kanda<sup>1</sup>, Toshiko Sekijima<sup>2</sup>, Masatoshi Miyakoshi<sup>1,2</sup> (<sup>1</sup>Fac. Med., Univ. Tsukuba, <sup>2</sup>GIP-TRIAD, Univ. Tsukuba)

**P2-090****Comparison of function of the primary sigma factors among various bacteria in *Bacillus subtilis***

○Shusuke Yahano, Kei Asai (Dept. Biosci., Sch. Life., Tono Univ.)

**P2-091****Transcriptome Complexity of *Vibrio parahaemolyticus* revealed by direct RNA sequencing**

○Mohamad Al Kadi<sup>1</sup>, Eiji Ishii<sup>2</sup>, Tat Truong Dang<sup>3</sup>, Daisuke Motooka<sup>3</sup>, Shigeaki Matsuda<sup>2</sup>, Tetsuya Iida<sup>2</sup>, Toshio Kodama<sup>4</sup>, Daisuke Okuzaki<sup>1</sup> (<sup>1</sup>Hum. Immunol., IFREC, Osaka Univ., <sup>2</sup>Dept. Bact. Infec., RIMD, Osaka Univ., <sup>3</sup>Dept. Infec. Meta., RIMD, Osaka Univ., <sup>4</sup>Dept. Bac., Inst. Tropical Med., Nagasaki Univ.)

**P2-092****H-NS mediates temperature- and salinity-dependent regulation of T3SS2 in *Vibrio parahaemolyticus***

○Andre Pratama<sup>1</sup>, Eiji Ishii<sup>1</sup>, Toshio Kodama<sup>2</sup>, Tetsuya Iida<sup>1,3</sup>, Shigeaki Matsuda<sup>1</sup> (<sup>1</sup>Dept. Bac. Infect., RIMD, Osaka Univ., <sup>2</sup>Dept. Bac., Inst. Trop. Med., Nagasaki Univ., <sup>3</sup>Cent. for Infect. Dis. Edu. Res., Osaka Univ.)

**4. Genetics / Genomics / Biotechnology  
-d. Genetic manipulation and analysis, biotechnology and synthetic biology****P2-093****A trick method enabling packaging of Staphylococcal pathogenicity islands into desired phage capsids**

○Xin-Ee Tan, Kotaro Kiga, Shinya Watanabe, Kazuhiko Miyanaga, Yoshifumi Aiba, Kanate Thititanapakorn, Longzhu Cui (Div. Bacteriol., Dept. Infect. Immun., Sch. Med., Jichi Med. Univ.)

**P2-094****Functional analysis of Segmented filamentous bacteria genome in *Bacillus subtilis***

○Kei Asai<sup>1</sup>, Kouki Tanaka<sup>1</sup>, Ryuuji Ogino<sup>1</sup>, Yoshitoshi Ogura<sup>2</sup>, Tomomi Kuwahara<sup>3</sup> (<sup>1</sup>Dept. Biosci., Tokyo Univ. Agricul., <sup>2</sup>Dept. Infect. Med., Kurume Univ. Sch. Med., <sup>3</sup>Dept. Microbiol., Sch. Med., Kagawa Univ.)

## P2-095

### Development of highly sensitive bacterial single-cell RNA sequencing method

○Mika Nishimura<sup>1</sup>, Haruko Takeyama<sup>1,2,3,4</sup>, Masahito Hosokawa<sup>1,2,3,4</sup> (<sup>1</sup>Grad. Sch. Adv. Sci. Eng., Waseda Univ., <sup>2</sup>Res. Org. Nano Life Innov., Waseda Univ., <sup>3</sup>CBBD-OIL, AIST-Waseda Univ., <sup>4</sup>Inst. Adv. Res. Biosyst. Dynam., Waseda Res. Inst. Sci. Eng., Waseda Univ.)

## P2-096

### Single-virus genomics platform for elucidating the functions of environmental DNA viruses

○Yohei Nishikawa<sup>1,2</sup>, Ryota Wagatsuma<sup>1,3</sup>, Masahito Hosokawa<sup>1,2,3,4</sup>, Haruko Takeyama<sup>1,2,3,4</sup> (<sup>1</sup>CBBD-OIL, AIST-Waseda Univ., <sup>2</sup>Res. Org. Nano Life Innov., Waseda Univ., <sup>3</sup>Grad. Sch. Adv. Sci. Eng., Waseda Univ., <sup>4</sup>Inst. Adv. Res. Biosyst. Dynam., Waseda Res. Inst. Sci. Eng., Waseda Univ.)

## P2-097

### Morphine production using engineered *Escherichia coli*

○Akira Nakagawa<sup>1,2</sup>, Hiromichi Minami<sup>1,2</sup> (<sup>1</sup>Res. Inst. Biores. Biotech. Ishikawa Pref. Univ., <sup>2</sup>Fermelanta, Inc.)

## P2-098

### Construction and utilization of DNA transduction system by conjugation using *B. subtilis* as a donor

○Wakana Suda<sup>1</sup>, Mitsuhiro Itaya<sup>2</sup>, Kei Asai<sup>1</sup> (<sup>1</sup>Dept. Bio., Sch. Lifesci., Tono Univ., <sup>2</sup>Dept. Materials Chem., Sch. Eng., Shinshu Univ.)

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## 4. Genetics / Genomics / Biotechnology -e. Others

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## P2-099

### DNA gyrase inhibitor, TsbT expressed by *Staphylococcus aureus*

○Fuminori Kato<sup>1,2</sup>, Yoshihiro Yamaguchi<sup>3</sup>, Masayori Inouye<sup>2</sup> (<sup>1</sup>Grad. Sch. Biomed. Hlth. Sci., Hiroshima Univ., <sup>2</sup>Dept. Biochem. Mol. Biol., Rutgers Univ., <sup>3</sup>Grad. Sch. Sci., Osaka Metropolitan Univ.)

## P2-100

### Analysis of gene expression levels of *P. gingivalis* in response to changes of oral environment

○Noriko Kuwahara<sup>1</sup>, Koichi Hiratsuka<sup>2</sup>, Masanori Saito<sup>1</sup>, Tomomi Hashizume-Takizawa<sup>1</sup>, Ryoki Kobayashi<sup>1</sup>, Hidenobu Senpuku<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Immunol., Nihon Univ. Sch. Dent. at Matsudo, <sup>2</sup>Dept. Biochem. Mol. Biol., Nihon Univ. Sch. Dent. at Matsudo)

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## 5. Pathogenicity -a. Adhesins and colonization factors

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## P2-101/W8-5

### The membrane recognition mechanisms of colonization factors from Enterotoxigenic *Escherichia coli*

○Minato Iimori<sup>1</sup>, Hiroya Oki<sup>2</sup>, Tomoya Imai<sup>3</sup>, Shigeaki Matsuda<sup>2</sup>, Takuya Yoshida<sup>4</sup>, Tadayasu Ohkubo<sup>4,5</sup>, Tetsuya Iida<sup>2,5</sup>, Shota Nakamura<sup>2,5</sup>, Kazuki Kawahara<sup>4,5</sup> (<sup>1</sup>Sch. Pharm. Sci., Osaka Univ., <sup>2</sup>RIMD, Osaka Univ., <sup>3</sup>RISH, Kyoto Univ., <sup>4</sup>Grad. Sch. Pharm. Sci., Osaka Univ., <sup>5</sup>CiDER, Osaka Univ.)

## P2-102

### Biochemical and structural characterization of the *C. perfringens* pili proteins CppB and CppA

○Eiji Tamai<sup>1</sup>, Shigehiro Kamitori<sup>2</sup>, Nayu Arimura<sup>1</sup>, Risa Matsunami<sup>1</sup>, Hiroshi Sekiya<sup>1</sup> (<sup>1</sup>Dept. Infec. Dis., Col. Pharm. Sci., Matsuyama Univ., <sup>2</sup>Res. Faci. Cent. Sci. & Tec. Facul. Med., Kagawa Univ.)

## P2-103

### Environmental RNAs serve as building materials in *Staphylococcus aureus* biofilms

○Akio Chiba<sup>1,2</sup>, Shinya Sugimoto<sup>1,2</sup>, Masahide Seki<sup>3</sup>, Yutaka Suzuki<sup>3</sup>, Yoshimitsu Mizunoe<sup>1</sup>, Yuki Kinjo<sup>1,2</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med., Jikei Univ., <sup>2</sup>Jikei Ctr. Biofilm Sci. & Tech., <sup>3</sup>Dept. Comput. Biol. and Med. Sci., Grad. Sch. Front. Sci. Univ. Tokyo)

## P2-104

### sRNA-mediated regulation of outer membrane protein expression in *Helicobacter pylori*

○Kana Nishida<sup>1</sup>, Ryo Kinoshita-Daitoku<sup>1</sup>, Hiromi Ajisaka<sup>1</sup>, Kotaro Kiga<sup>2</sup>, Keigo Shibayama<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Nagoya Univ., <sup>2</sup>Res. Ctr. Drug Vaccine Dev., Natl. Inst. Infect. Dis.)

## P2-105

### Secretion mechanism of the colonization factor via Type IVb pilus of pathogenic enteric bacteria

○Hiroya Oki<sup>1</sup>, Minato Iimori<sup>2</sup>, Haruka Nishiumi<sup>3</sup>, Takahiro Maruno<sup>3</sup>, Susumu Uchiyama<sup>3</sup>, Shigeaki Matsuda<sup>1</sup>, Tetsuya Iida<sup>1,4</sup>, Kazuki Kawahara<sup>2,4</sup>, Shota Nakamura<sup>1,4</sup> (<sup>1</sup>RIMD, Osaka Univ., <sup>2</sup>Grad. Sch. Pharm. Sci., Osaka Univ., <sup>3</sup>Grad. Sch. Eng., Osaka Univ., <sup>4</sup>CiDER, Osaka Univ.)

## P2-106

### Analysis of cell adhesion in LEE-negative enterohemorrhagic *Escherichia coli*

○Akiko Kubomura<sup>1</sup>, Ken-ichi Lee<sup>1</sup>, Sunao Iyoda<sup>1</sup>, Yukihiko Akeda<sup>1</sup>, EHEC Working Group<sup>2</sup> (<sup>1</sup>National Institute of Infectious Diseases, <sup>2</sup>Local Health Research Institute)



## 5. Pathogenicity

### -b. Toxins, effectors and physically active substances

#### P2-107/W8-8

##### Molecular characteristics of novel 5-domain type cholesterol-dependent cytolysin, discoidinolytin

○Atsushi Tabata<sup>1,2</sup>, Airi Matsumoto<sup>2,3</sup>, Ai Fujimoto<sup>2</sup>, Toshifumi Tomoyasu<sup>1,2</sup>, Ayuko Takao<sup>4</sup>, Hisashi Ohkuni<sup>5</sup>, Hideaki Nagamune<sup>1,2</sup> (<sup>1</sup>Div. Biosci. & Bioind., Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ., <sup>2</sup>Dept. Biol. Sci. & Tech., Grad. Sch. Adv. Tech. & Sci., Tokushima Univ., <sup>3</sup>Dept. Oral Microbiol., Grad. Sch. Med. & Dent. Sci., Kagoshima Univ., <sup>4</sup>Dept. Oral Bacteriol., Tsurumi Univ., <sup>5</sup>Health Sci. Res. Inst. East Japan Co. Ltd.)

#### P2-108/W8-2

##### Reversible modification of mitochondrial ADP/ATP translocases by paired Legionella effector proteins

○Tomoko Kubori<sup>1</sup>, Junup Lee<sup>2</sup>, Hyunmin Kim<sup>2</sup>, Kohei Yamazaki<sup>1</sup>, Masanari Nishikawa<sup>1</sup>, Tomoe Kitao<sup>1</sup>, Byung-Ha Oh<sup>2</sup>, Hiroki Nagai<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Grad. Sch. Med., Gifu Univ., <sup>2</sup>Dept. Biol. Sci., KAIST)

#### P2-109/W8-6

##### Endogenous production and neurotoxicity of novel botulinum neurotoxin (BoNT/X) in a clinical isolate

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

#### P2-110/W8-1

##### Legionella co-opts a host v-SNARE using noncanonical ubiquitination

○Tomoe Kitao<sup>1</sup>, Rina Iida<sup>1</sup>, Tomoko Kubori<sup>1,2</sup>, Hiroki Nagai<sup>1,2</sup> (<sup>1</sup>Dept. Microbiol., Grad. Sch. Med., Gifu Univ., <sup>2</sup>G-CHAIN, Gifu Univ.)

#### P2-111

##### Human serum albumin stabilizes streptolysin S secreted by streptolysin S-producing streptococci

○Shuto Yokohata<sup>1</sup>, Kazuto Ohkura<sup>2</sup>, Hideaki Nagamune<sup>1,3</sup>, Toshifumi Tomoyasu<sup>1,3</sup>, Atsushi Tabata<sup>1,3</sup> (<sup>1</sup>Div. Bioresour. Sci., Grad. Sch. Sci. & Tech. for Innov. Tokushima Univ., <sup>2</sup>Div. Pharm. Sci., Suzuka Univ. Med. Sci. Grad. Sch., <sup>3</sup>Div. Biosci. & Bioindust., Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ.)

#### P2-112

##### The development of *in vitro* Tetanus Toxin detection methods

○Hyun Kim, Masahiro Yutani, Tsuyoshi Kenri, Mitsutoshi Senoh (Dept. Bacteriology II, NIID)

#### P2-113

##### Structure-function analysis of Clostridial collagenases

○Md Asaduzzaman<sup>1</sup>, Takehiko Mima<sup>2</sup>, Kazuyoshi Gotoh<sup>1</sup>, Yumiko Yamamoto<sup>1</sup>, Jumpei Uchiyama<sup>1</sup>, Joshua Sakon<sup>3</sup>, Osamu Matsushita<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ., <sup>2</sup>Ehime Pref. Univ. Health Sci., <sup>3</sup>Dept. Chem. Biochem., Univ. Arkansas, USA)

#### P2-114

##### Analysis of cytotoxicity by bOMVs released from *Aeromonas* biofilm

○Soshi Seike<sup>1</sup>, Hidetomo Kobayashi<sup>1</sup>, Eizo Takahashi<sup>2</sup>, Keinosuke Okamoto<sup>3</sup>, Hiroyasu Yamanaka<sup>1</sup> (<sup>1</sup>Lab. Mol. Microbiol. Sci., Fac. Pharm. Sci., Hiroshima International Univ., <sup>2</sup>Lab. Med. Microbiol., Dept. Health Pharm., Yokohama Univ. of Pharm., <sup>3</sup>Collab. Res. Ctr. Okayama Univ.)

#### P2-115

##### Induction of cytokine gene expression in human cell line depending on N-terminal domain of Sm-hPAF

○Keiichiro Ohoka<sup>1</sup>, Atsushi Tabata<sup>1,2</sup>, Hisashi Ohkuni<sup>3</sup>, Toshifumi Tomoyasu<sup>1,2</sup>, Hideaki Nagamune<sup>1,2</sup> (<sup>1</sup>Div. Bioresour. Sci., Grad. Sch. Sci. & Tech. for Innov., Tokushima Univ., <sup>2</sup>Div. Biosci. & Bioindust., Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ., <sup>3</sup>Health Sci. Res. Inst. East Japan Co. Ltd.)

#### P2-116

##### Characterization of human antibody against diphtheria toxin

○Tomoko Kohda<sup>1</sup>, Shiho Fukae<sup>1</sup>, Akane Mimaki<sup>1</sup>, Hiroyuki Satofuka<sup>2</sup>, Yasuhiro Kazuki<sup>2,3</sup>, Kei Hiramatsu<sup>4</sup>, Masafumi Mukamoto<sup>1</sup> (<sup>1</sup>Grad. Sch. Vet. Sci., Osaka Metropolitan Univ., <sup>2</sup>Chromosome Engineering Res. Center., Tottori Univ., <sup>3</sup>Dept. Chromosome Biomedical Engineering, Sch. Life Sci., Fac. Med., Tottori Univ., <sup>4</sup>Trans Chromosomics, Inc.)

#### P2-117

##### Identification of natural compounds to inhibit effector translocations of *Salmonella*

○Akiko Takaya<sup>1</sup>, Mikko Hirose<sup>1</sup>, Masami Ishibashi<sup>1</sup> (<sup>1</sup>Dep. Nat. Prod. Chem., Grad. Sch. Pharm. Sci., Chiba Univ., <sup>2</sup>MMRC, Chiba Univ.)

#### P2-118

##### Metabolite of Red ginseng extracts by $\beta$ -glucosidase reduces hemolysin production from *S. aureus*

○Mayuko Oka<sup>1</sup>, Sakura Tsutamoto<sup>1</sup>, Dendi Nugraha Krisna<sup>2</sup>, Yasuhiko Horiguchi<sup>2</sup> (<sup>1</sup>Food Hyg. Env. Health, Life Env. Sci., Kyoto Pref. Univ., <sup>2</sup>Dept. Mol. Bacteriol., RIMD, Osaka Univ.)

**P2-119****Redox regulation involved in the toxicity of Shiga-toxin producing *Escherichia coli* toxin SubAB**

○Hiroyasu Tsutsuki<sup>1</sup>, Tianli Zhang<sup>1</sup>, Kinnoyuke Yahiro<sup>2</sup>, Takaaki Akaike<sup>3</sup>, Tomohiro Sawa<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., <sup>2</sup>Dept. Microbiol. Infect. Cont. Sci., Kyoto Pharm. Univ., <sup>3</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med.)

**P2-120****Purification of recombinant hemagglutinin-33 from botulinum toxin complex serotype C strain Yoichi**

○Tsuyoshi Hata<sup>1</sup>, Shin-Ichiro Miyashita<sup>2</sup>, Shura Karatsu<sup>3</sup>, I Hsun Huang<sup>3</sup>, Yuki Nagashima<sup>1</sup>, Tamaki Morobishi<sup>1</sup>, Keita Hosoya<sup>3</sup>, Akitaka Honda<sup>2</sup>, Yoshimasa Sagane<sup>2</sup> (<sup>1</sup>Dept. Food. Cosme. Sci., Grad. Sch. Bio. Indust., Tokyo NODAI, <sup>2</sup>Dept. Food. Aroma Cosme. Chem., Fac. Bio. Indust., Tokyo NODAI, <sup>3</sup>Dept. Bio. Indust., Grad. Sch. Bio. Indust., Tokyo NODAI)

**P2-121****ESAT-6 like protein secreted via T7SS contributes to cytotoxicity of *Streptococcus intermedius***

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

**P2-122****Effects of *Monascus* fermented rice extract on cholera toxin sensitivity of CHO cells**

Rena Kinjyo<sup>1</sup>, Jun Xu<sup>2</sup>, Shinjiro Tachibana<sup>1</sup>, ○Tetsu Yamashiro<sup>2</sup> (<sup>1</sup>Facul. Agricul., Univ. Ryukyus, <sup>2</sup>Dept. Bacteriol. Sch. Med. Univ. Ryukyus)

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**5. Pathogenicity**
**-c. Cell invasion and intracellular parasitism****P2-123/W8-7****Identification of a novel gene locus related to the pathogenicity of *Burkholderia pseudomallei***

○Takashi Nishida<sup>1</sup>, Yukihiro Hiramatsu<sup>1</sup>, Dendi Krisna Nugraha<sup>1</sup>, Yasuhiko Horiguchi<sup>1,2</sup> (<sup>1</sup>Dept. Mol. Bact., RIMD, Osaka Univ., <sup>2</sup>CiDER, Osaka Univ.)

**P2-124/W8-3****Vi capsular polysaccharide of *Salmonella* Typhi promotes macrophage phagocytosis by binding DC-SIGN**

Lillian F. Zhang<sup>1</sup>, Andreas J. Baumler<sup>1</sup>, ○Hirotaka Hiyoshi<sup>1,2</sup> (<sup>1</sup>Dept. Med. Microbiol. Immunol., UC Davis, <sup>2</sup>Dept. Bacteriol., NEKKEN, Nagasaki Univ.)

**P2-125****Functional analysis of carbohydrate-binding proteins in a pneumococcal infection**

○Runa Furuya<sup>1,2</sup>, Michinaga Ogawa<sup>2</sup>, Ryoichi Saito<sup>1</sup>, Yukihiro Akeda<sup>2</sup> (<sup>1</sup>Dept. Mol. Microbiol., Grad. Sch. Med., Tokyo Medical and Dental Univ., <sup>2</sup>Dept. Bac. 1, Natl. Inst. Infect. Dis.)

**P2-126****TBC1D18 regulates exocytic and endocytic trafficking of the invading Group A *Streptococcus***

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

**P2-127****Phenotypic analysis of *Salmonella*-infected cells in the spleen**

○Nobuhiro Matsuyama<sup>1</sup>, Uki Kimura<sup>1</sup>, Karen Saiki<sup>1</sup>, Akiko Takaya<sup>2</sup>, Koji Tokoyoda<sup>1</sup> (<sup>1</sup>Div. Immunol., Life Sci., Med., Tottori Univ., <sup>2</sup>Dept. Nat. Prod. Chem., Pharm. Sci., Chiba Univ.)

**P2-128****The analysis of biotin ligases in *Francisella* infection**

○Takemasa Nakamura<sup>1</sup>, Naho Nishinakama<sup>1</sup>, Takashi Shimizu<sup>1</sup>, Kenta Watanabe<sup>1</sup>, Akihiko Uda<sup>2</sup>, Masahisa Watarai<sup>1</sup> (<sup>1</sup>Lab. Vet. Pub. Hlth., Jnt. Fac. Vet. Med., Yamaguchi Univ., <sup>2</sup>Dept. Vet. Sci., NIID)

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**5. Pathogenicity**
**-d. Immune escape and proliferation in hosts****P2-129****Neutrophil evasion strategies by *V. vulnificus***

○Takashige Kashimoto, Takehiro Kado, Kohei Yamazaki, Shunji Ueno (Lab. Veterinary Public Health., Sch. Veterinary Medicine, Kitasato Univ.)

**P2-130****Antibiotics change bacterial phenotypes and induce the evasion of host immunity**

○Karen Saiki<sup>1</sup>, Uki Kimura<sup>1</sup>, Nobuhiro Matsuyama<sup>1</sup>, Akiko Takaya<sup>2</sup>, Koji Tokoyoda<sup>1</sup> (<sup>1</sup>Div. Immunol., Life Sci., Med., Tottori Univ., <sup>2</sup>Dept. Nat. Prod. Chem., Pharm. Sci., Chiba Univ.)

**P2-131****Pathogenic effects on liver of mice by the infection of *Helicobacter mastomyrinus* isolates**

○Hitoki Yamanaka<sup>1</sup>, Ayano Miyauchi<sup>2</sup>, Takahiro Yoshizawa<sup>1</sup>, Shin Shimada<sup>1</sup>, Kazutaka Ohsawa<sup>3</sup>, Ritsuko Masuyama<sup>2</sup> (<sup>1</sup>Res. Ctr. Adv. Sci. Technol., Shinshu Univ., <sup>2</sup>Grad. Sch. Gastron. Manag., Ritsumeikan Univ., <sup>3</sup>Grad. Sch. Biomed. Sci., Nagasaki Univ.)

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**5. Pathogenicity -e. Infection models**
**P2-132****Effect of statin treatment on *Campylobacter jejuni* colonization in mouse infection model**

○Takaaki Shimohata<sup>1,2</sup>, Mai Tsujiguchi<sup>2</sup>, Shiho Fukushima<sup>2</sup>, Mana Makimoto<sup>2</sup>, Junko Kido<sup>2</sup>, Ayumi Yoshimoto<sup>2</sup>, Kai Ishida<sup>2</sup>, Takashi Uebanso<sup>2</sup>, Kazuaki Mawatari<sup>2</sup>, Akira Takahashi<sup>2</sup> (<sup>1</sup>Marine-Bio, Fukui Prefectural Univ., <sup>2</sup>Dept. Prevent. Environ. Nutr., Inst. Biomed. Sci., Tokushima Univ. Grad. Sch.)

**P2-133****Investigation of the mechanism of periodontitis-related colitis in a mouse model**

○Ryoki Kobayashi<sup>1</sup>, Miyuki Toda<sup>2</sup>, Hiroyuki Okada<sup>2</sup>, Hidenobu Senpuku<sup>1</sup> (<sup>1</sup>Dept. Infec. Immuno. Sch. Dent. at Matsudo, Nihon Univ., <sup>2</sup>Dept. Hist., Sch. Dent. at Matsudo, Nihon Univ.)

**P2-134****Identification and mechanism of pathobiont that contribute to intestinal fibrosis in Crohn's disease**

○Jin Imai<sup>1,3</sup>, Hidekazu Suzuki<sup>2</sup>, Yasuhiro Nishizaki<sup>1</sup>, Nobuhiko Kamada<sup>3</sup> (<sup>1</sup>Dept. Clinical Health Science, Sch. Med., Tokai Univ., <sup>2</sup>Dept. Gastro, Sch. Med., Tokai Univ., <sup>3</sup>Dept. Gastro, Sch. Med., The Univ. of Michigan)

**P2-135****A critical role of calcineurin pathway in virulence of the fungal pathogen *Trichosporon asahii***

○Yasuhiko Matsumoto<sup>1</sup>, Asami Yoshikawa<sup>1</sup>, Tae Nagamachi<sup>1</sup>, Yu Sugiyama<sup>1</sup>, Tsuyoshi Yamada<sup>2,3</sup>, Takashi Sugita<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Meiji Pharm. Univ., <sup>2</sup>Teikyo Univ. Ins. Med. Mycol., <sup>3</sup>ADC, Teikyo Univ.)

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**5. Pathogenicity -f. Others**


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**P2-136/W8-4****Co-infection with *Streptococcus* sp. and *H. pylori* enhances the risk of gastric carcinogenesis**

○Hitoshi Tsugawa<sup>1</sup>, Miwa Hirai<sup>2</sup>, Takashi Ueda<sup>2</sup>, Juntaro Matsuzaki<sup>3</sup>, Hidekazu Suzuki<sup>2</sup> (<sup>1</sup>Div. Host Defense Mechanism., Sch. Med., Tokai Univ., <sup>2</sup>Div. Gastroenterol. and Hepatol., Sch. Med., Tokai Univ., <sup>3</sup>Div. Pharmacotherapeutics, Keio Univ. Fac. Pharmacy)

**P2-137*****P. aeruginosa* glycolytic pathway-associated genes related to bacterial translocation**

○Nohara Sasaki<sup>1</sup>, Hiroshi Ojima<sup>1</sup>, Yuito Shichijo<sup>1</sup>, Junya Nakagawa<sup>1</sup>, Chigusa Suezawa<sup>1,2</sup>, Jun Okuda<sup>1,2</sup> (<sup>1</sup>Div. Microbiol., Dept. Clin. Exam., Grad. Sch. Kagawa Pref. Univ. of Health Sci., <sup>2</sup>Div. Microbiol., Dept. Med. Tech., Kagawa Pref. Univ. of Health Sci.)

**P2-138****Fate of *Porphyromonas gingivalis* outer membrane vesicles intravenously administered to mice**

○Hiroki Uchiyama<sup>1,2</sup>, Takehiro Yamaguchi<sup>1</sup>, Hidetaka Miyazaki<sup>1,3</sup>, Yukihiro Akeda<sup>1</sup>, Ryoma Nakao<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. I, Natl. Inst. Infect., <sup>2</sup>Dept. Surg., Tokyo Med. Dent. Univ. Grad Sch. Med. Dent. Sci., <sup>3</sup>Dept. Oculoplastic and Orbital Surg., Aichi Med. Univ.)

**P2-139****Resveratrol regulates *F. nucleatum*-induced the epithelial-mesenchymal transition in cancer cells**

○Jie Min, Toshinori Okinaga, Chiho Mashimo, Takayuki Nambu, Hugo Maruyama (Dept. Bacteriol, Osaka Dental Univ.)

**P2-140****Toxin-Antitoxin system alters gene expression patterns and reduces virulence gene expression in EHEC**

○Shinya Ebihara, Hilo Yen, Toru Tobe (Dept. Biomedical Science., Grad. Sch. Med., Osaka Univ.)

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**6. Host defense -a. Innate immunity**


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**P2-141/W7-6****Co-evolution of bacteria and paired immune receptors in humans**

○Kouyuki Hirayasu<sup>1</sup>, Gen Hasegawa<sup>1</sup>, Yifan Li<sup>1</sup>, Hisashi Arase<sup>2,3</sup>, Masaya Yamaguchi<sup>4</sup>, Shigetada Kawabata<sup>5</sup>, Rikinari Hanayama<sup>1</sup> (<sup>1</sup>Adv. Prev. Med. Sci. Res. Cen., Kanazawa Univ., <sup>2</sup>Dept. Immunochem., RIMD, Osaka Univ., <sup>3</sup>Lab. Immunochem., IFReC, Osaka Univ., <sup>4</sup>Bioinform. Res. Unit, Osaka Univ. Grad. Sch. Dent., <sup>5</sup>Dept. Oral Mol. Microbiol., Osaka Univ. Grad. Sch. Dent.)

**P2-142/W7-8****Innate immunity to microbial pathogens**

○Atsushi Miyashita<sup>1</sup>, Yu Saito<sup>2</sup>, Yukari Fujimoto<sup>2</sup>, Kazuo Shinya<sup>3</sup>, Kazuhisa Sekimizu<sup>4</sup> (<sup>1</sup>Teikyo Univ. Inst. Med. Mycol., <sup>2</sup>Keio Univ., <sup>3</sup>National Institute of Advanced Industrial Science and Technology, <sup>4</sup>Teikyo Univ.)

**P2-143/W7-5****STING (Stimulator of interferon gene) regulates lysosomal degradation pathway**

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

**P2-144****A novel role of GRIM-19 in cytokine production during mycobacterial infection**

○Giichi Takaesu<sup>1,2,3</sup>, Masayuki Umemura<sup>1,2,3</sup>, Goro Matsuzaki<sup>1,2,3</sup> (<sup>1</sup>Mol. Microbiol. Group, TBRC, Univ. Ryukyus, <sup>2</sup>Dept. Biodefense, Grad. Sch. Med., Univ. Ryukyus, <sup>3</sup>Adv. Med. Res. Ctr., Faculty Med., Univ. Ryukyus)

**P2-145****Cytokine-induced FBXO2 directs xenophagy against Group A *Streptococcus* in endothelial cells**

○Min Wu, Takashi Nozawa, Ichiro Nakagawa (Dep. Microbiol., Grad Sch Med., Kyoto Univ.)

**P2-146**

**Oral infection of *P. gingivalis* induces exacerbation of neurological manifestation in mice**

○Tokuju Okano, Toshihiko Suzuki (Dept. Bact. Path., Infect. Host Resp., Sch Med. Dent., Tokyo Med. Dent. Univ.)

**6. Host defense -b. Acquired immunity, vaccines and prevention and control of infections**

**P2-147/W7-7**

**Spatial mutiomics profiling characterize foamy macrophages within tuberculous granulomas**

○Shintaro Seto, Minako Hijikata, Naoto Keicho (Dept. Pathophysiol. Host Defense, RIT)

**P2-148**

**Impact of hydrogen peroxide secreted from lactobacilli on human vaginal epithelia**

○Yukina Tomono, Riho Tabata, Maho Shimada, Shiho Sato, Mayuko Kato, Masahiro Ito, Nobuhiko Okada (Dept. Microbiol., Sch. Pha., Kitasato Univ.)

**P2-149**

**MafB, a transcription factor involved in tuberculosis susceptibility, regulates granuloma formation**

○Haruka Hikichi<sup>1,2</sup>, Hajime Nakamura<sup>1</sup>, Shintaro Seto<sup>1</sup>, Minako Hijikata<sup>1</sup>, Naoto Keicho<sup>2,3</sup> (<sup>1</sup>Dept. Pathophysiology and Host Defense, The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, <sup>2</sup>Dept. Basic Mycobacteriosis, Nagasaki Univ. Grad. Sch. Biomedical Sciences, <sup>3</sup>The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association)

**P2-150**

**Mucosal bacteria closest to gut epithelium affects host immune system**

○Jiayue Yang<sup>1,2</sup>, Nozomu Obana<sup>3,4,5</sup>, Gaku Nakato<sup>6</sup>, Nobuhiko Nomura<sup>3,4,7</sup>, Masaru Tomita<sup>1,2</sup>, Shinji Fukuda<sup>1-6,8</sup> (<sup>1</sup>IAB, Keio Univ., <sup>2</sup>Grad. Sch. Med. Gov, Keio Univ., <sup>3</sup>TMRC, Univ. of Tsukuba, <sup>4</sup>MiCS, Univ. of Tsukuba, <sup>5</sup>Sch. Med. & Med. Sci., Univ. of Tsukuba, <sup>6</sup>KISTEC, <sup>7</sup>Sch. Life Env. Sci., Univ. of Tsukuba, <sup>8</sup>Metagen, Inc.)

**P2-151**

**Construction of a mucosal vaccine using lactic acid bacteria displaying interleukin-1a**

○Tetsuhiro Katoh, Kenji Yokota, Shizunobu Igimi, Akinobu Kajikawa (Dept. Agr. Chem., Appl. Bio. Sci., Tokyo Univ. Agr.)

**6. Host defense -c. Others**

**P2-152**

**Development and analysis of human monoclonal antibodies against type A botulinum neurotoxin**

○Aki Yamaguchi, Takuhiro Matsumura, Nobuhide Kobayashi, Sho Amatsu, Yukako Fujinaga (Dept. Bacteriol. Grad. Sch. Med., Kanazawa Univ.)

**7. Antimicrobial agents and resistance  
-a. Antimicrobial agents**

**P2-153/W7-1**

**Bacteriophage Therapy against Canine Clonic External Otitis with *Pseudomonas aeruginosa* Infection**

○Tomohiro Nakamura<sup>1,2,3</sup>, Jumpei Fujiki<sup>1</sup>, Keisuke Nakamura<sup>1</sup>, Toshikazu Sakai<sup>4</sup>, Tomohito Iwasaki<sup>5</sup>, Hidetomo Iwano<sup>1</sup> (<sup>1</sup>Lab. Vet. Biochem., Sch. Vet. Med., Rakuno Gakuen Univ., <sup>2</sup>Ctr. Drug and Vaccine Dev., NIID, <sup>3</sup>Phage Therapy Inst., Waseda Univ., <sup>4</sup>Lab. Vet. Surgery, Sch. Vet. Med., Rakuno Gakuen Univ., <sup>5</sup>Lab. Appl. Biochem., Col. Food and Health, Rakuno Gakuen Univ.)

**P2-154**

**Antimicrobial activity of substances produced by *Serratia marcescens***

○Tomohiro Miyoshi<sup>1</sup>, Chisato Ohori<sup>2</sup>, Yu Muto<sup>3</sup>, Atsushi Ishihara<sup>3</sup>, Kumiko Osaki-Oka<sup>3</sup>, Hitomi Mimuro<sup>1</sup> (<sup>1</sup>RCGLID, Oita Univ., <sup>2</sup>Fac. Dent., Matsumoto Dent. Univ., <sup>3</sup>Fac. Agric., Tottori Univ.)

**P2-155**

**Property of antibacterial substance produced by *Aeribacillus pallidus* isolated from vegetables**

○Haruna Ogawa<sup>1</sup>, Nana Fujimoto<sup>1</sup>, Nana Ishii<sup>1</sup>, Emika Inoue<sup>1</sup>, Yuki Sugiyama<sup>1</sup>, Hideyuki Arimitsu<sup>1,2</sup> (<sup>1</sup>Dept. Microbiol. Sch. Human Sci. Enviromen., Univ. of Hyogo, <sup>2</sup>Res. Inst. Food and Nutr. Sci., Univ. of Hyogo)

**P2-156**

**β-glucan from baker's yeast inhibits *Streptococcus mutans* biofilm**

○Ryota Yamasaki, Yoshie Yoshioka, Wataru Ariyoshi (Dept. Health Promotion, Kyushu Dental Univ.)

**P2-157**

**Isolation and characterization of *Bacteroides fragilis* bacteriophage with a broad host range**

○Mahmoud Arbaah, Thuy Nguyen, Yoshifumi Aiba, Shinya Watanabe, Kazuhiko Miyanaga, Xin-Ee Tan, Teppei Sasahara, Longzhu Cui (Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

**P2-158****Antibacterial effects of the Banglene from Indonesian ginger extracts**

○Mayu Sebe<sup>1</sup>, Keiji Murakami<sup>1</sup>, Wako Kobayashi<sup>1</sup>, Miwa Kubo<sup>2</sup>  
(<sup>1</sup>Dept. Clinical Nutrition., Kawasaki Univ. of Med. Welfare.,  
<sup>2</sup>Fac. Pharmaceutical Sciences., Tokushima Bunri Univ.)

**P2-159****Effects of novel thiazolidinedione derivatives on *Candida***

○Keiji Murakami<sup>1</sup>, Mayu Sebe<sup>1</sup>, Wako Kobayashi<sup>1</sup>, Hideki Fujii<sup>2</sup>, Michiyasu Nakao<sup>3</sup>, Shigeki Sano<sup>3</sup>, Masahiro Abe<sup>4</sup> (<sup>1</sup>Dept. Clinic. Nutrition, Kawasaki Univ. Med. Welfare, <sup>2</sup>Dept. Biol., Sch. Med., Keio Univ., <sup>3</sup>Dept. Mol. Med. Chem., Grad. Sch. Pharma. Sci., Tokushima Univ., <sup>4</sup>Dept. Hematol., Endocrinol. Metabol. Grad. Sch. Biomed. Sci., Tokushima Univ.)

**P2-160****Isolation of actinomycetes from human feces and evaluation of their biological activities**

○Akira Take<sup>1</sup>, Yoshihiko Sakaguchi<sup>1</sup>, Yuta Kikuchi<sup>2</sup>, Yuki Inahashi<sup>2</sup>, Kazuyoshi Gotoh<sup>3</sup>, Shunji Hayashi<sup>1</sup>, Mitsuo Sakamoto<sup>4</sup>, Naoki Ohmiya<sup>5</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., Kitasato Univ., <sup>2</sup>Omura Satoshi Mem. Inst., Kitasato Univ., <sup>3</sup>Dept. Bacteriol., Med. Dent. Pharm. Sci., Inst. Acad. Res., Okayama Univ., <sup>4</sup>Microbe Div., RIKEN BRC., <sup>5</sup>Dept. Adv. Endoscopy, Fujita Health Univ.)

**P2-161****The inhibition of *Staphylococcus aureus* biofilm by bacteria isolated from Japanese Sake Lees**

○Go Namihira, Yoshimi Yasuda, Mako Kawai (Dept. Environ. Sci. and Microbiol., Fac. Pharm. Sci., Himeji Dokkyo Univ.)

**P2-162****Bactericidal activity and host range of bacteriophage-derived lysins**

○Wakana Yamashita<sup>1,2</sup>, Shinjiro Ojima<sup>1</sup>, Azam Aa Haeruman<sup>1</sup>, Kohei Kondo<sup>1,3</sup>, Tomohiro Nakamura<sup>1,4</sup>, Azumi Tamura<sup>1</sup>, Koichi Watashi<sup>1</sup>, Longzhu Cui<sup>5</sup>, Satoshi Tsuneda<sup>2,4</sup>, Kotaro Kiga<sup>1,4,5</sup>  
(<sup>1</sup>Res. Ctr. Drug Vaccine Dev., Natl. Inst. Infect. Dis., <sup>2</sup>Dept. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ., <sup>3</sup>AMR Res. Ctr., Natl. Inst. Infect. Dis., <sup>4</sup>Phage Therapy Inst., Waseda Univ., <sup>5</sup>Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

**P2-163****[Withdrawn]****P2-164****Lysocin E targeting menaquinone is a promising lead compound for anti-tuberculosis drugs**

Gebretsadik Gebremichal<sup>1</sup>, Akane Inaizumi<sup>1</sup>, Akihito Nishiyama<sup>1</sup>, Takehiro Yamaguchi<sup>1</sup>, Hiroshi Hamamoto<sup>2</sup>, Aki Tamaru<sup>3</sup>, Manabu Hayatsu<sup>4</sup>, Amina Shaban<sup>1</sup>, ○Yuriko Ozeki<sup>1</sup>, Sohkiichi Matsumoto<sup>1</sup> (<sup>1</sup>Dept. Bacteriology, Niigata Univ. Sch. Med., <sup>2</sup>Institute of Medical Mycology, Teikyo Univ., <sup>3</sup>Dept. Infectious Diseases, Osaka Prefectural Institute of Public Health, <sup>4</sup>Div. Microscopic Anatomy, Niigata Univ. Sch. Med.)

**P2-165****Development of antimicrobial peptides for the treatment of multi-drug resistant bacteria infection**

○Takashi Misawa<sup>1</sup>, Motoharu Hirano<sup>1,2</sup>, Megumi Kurashima<sup>1</sup>, Seiji Yamasaki<sup>3</sup>, Kunihiro Nishino<sup>3</sup>, Yosuke Demizu<sup>1,2</sup>  
(<sup>1</sup>National Institute of Health Sciences, <sup>2</sup>Yokohama City Univ., <sup>3</sup>Osaka Univ.)

**7. Antimicrobial agents and resistance****-b. Antimicrobial resistance****P2-166/W7-2****Virulent attenuation mechanism by acquisition of *mcr-1*-harboring plasmid into *Escherichia coli* ST131**

○Toyotaka Sato<sup>1,2</sup>, Soh Yamamoto<sup>2</sup>, Noriko Ogasawara<sup>2</sup>, Masaru Usui<sup>3</sup>, Noriyuki Nagano<sup>4</sup>, Yohei Doi<sup>5</sup>, Motohiro Horiuchi<sup>1</sup>, Satoshi Takahashi<sup>2</sup>, Shin-ichi Yokota<sup>2</sup>, Yutaka Tamura<sup>3</sup> (<sup>1</sup>Lab. Vet. Hygiene./Infect. Dis./One Health Res. Cent., Hokkaido Univ., <sup>2</sup>Dept. Microb./, Sch. Med., Sapporo Univ., <sup>3</sup>Lab. Food Microb., Sch. Vet. Med., Rakuno Gakuen Univ., <sup>4</sup>Dept. Med. Sci., Grad. Sch. Med., Shinshu Univ., <sup>5</sup>Depart. Microb. and Infec. Dis., Sch. Med., Fujita Health Univ.)

**P2-167/W7-3****A novel approach to the treatment of urinary tract infections caused by multidrug-resistant bacteria**

○Yuki Hoshiko<sup>1</sup>, Takeshi Yamamoto<sup>1</sup>, Miki Okuno<sup>1</sup>, Toshinari Maeda<sup>2</sup>, Yoshitoshi Ogura<sup>1</sup> (<sup>1</sup>Dept. Infect. Med., Kurume Univ. Sch. Med., <sup>2</sup>Dept. Biol. Func. Eng., Grad. Sch. Life Sci. Sys. Eng., Kyutech)

**P2-168/W7-4****SOS response leads to antibiotic persistence in *Pseudomonas aeruginosa* biofilms**

○Mio Unoki<sup>1</sup>, Mayumi Yano<sup>2</sup>, Toru Isawa<sup>2</sup>, Nobuhiko Nomura<sup>3,4</sup>, Masanori Toyofuku<sup>3,4</sup> (<sup>1</sup>Coll. Agro-Biol. Resour. Sci., Sch. Life and Environ. Sci, Univ. Tsukuba, <sup>2</sup>Grad. Sch. Life Environ. Sci., Univ. Tsukuba, <sup>3</sup>Fac. Life Environ. Sci., Univ. Tsukuba, <sup>4</sup>MiCS, Univ., Tsukuba)

**P2-169****Whole-genomic analysis of carbapenemase-producing *Enterobacteriales* in Fukuoka**

○Yuki Carle, Hiroaki Shigemura, Saori Ueda, Chiharu Katamune, Yoshiki Etoh, Yuki Ashizuka (Fukuoka Institute of Health and Environmental Sciences)

**P2-170****Changes in antimicrobial susceptibility and resistance gene of *Mycoplasma bovis* to fluoroquinolones**

○Naoyuki Takahashi, Sayaka Takahashi (National Federation of Agricultural Co-operative Associations)

**P2-171****The effect of mfpA encoding PRP on the MICs of Levofloxacin in *M. avium* clinical isolates from Japan**

○Mwangala Akapelwa<sup>1</sup>, Yuki Aizu-Ouchi<sup>1</sup>, Joseph Yamweka Chizimu<sup>1</sup>, Thoko Flav Kapalamula<sup>1</sup>, Conscilliah Rhombohl Menda<sup>3</sup>, Yukiko Nishiuchi<sup>4</sup>, Yasuhiko Suzuki<sup>1,2</sup>, Chie Nakajima<sup>1,2</sup> (<sup>1</sup>Div. Biores., Intl. Inst. for Zoonosis Ctrl., Hokkaido Univ., <sup>2</sup>International Collaboration Unit, Hokkaido Univ., International Institute for Zoonosis Control, <sup>3</sup>Ministry of Health, Papua New Guinea, <sup>4</sup>Toneyama Institute for Tuberculosis Research, Osaka City Univ. Sch. Medicine)

**P2-172****Disinfectant Susceptibility of Oral Cephalosporin/Carbapenem-Resistant Gram-Negative Bacteria**

○Azusa Haruta<sup>1,2</sup>, Miki Kawada-Matsuo<sup>2,3</sup>, Mineka Yoshikawa<sup>1</sup>, Maho Takeuchi<sup>1</sup>, Mi Le Nguyen Tra<sup>2,3</sup>, You Sugawara<sup>3,4</sup>, Toshiki Kajihara<sup>3,4</sup>, Hiroki Ohge<sup>3,5</sup>, Kazuhiro Tsuga<sup>1</sup>, Hitoshi Komatsuzawa<sup>2,3</sup> (<sup>1</sup>Dept. Advanced Prosthodont., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>2</sup>Dept. Bacteriol., Grad. Sch. Biomed. & Health Sci., Hiroshima Univ., <sup>3</sup>Project Research Ctr., Nosocomial Infectious Diseases, Hiroshima Univ., <sup>4</sup>Antimicrobial Resistance Research Ctr., National Institute of Infectious Diseases, <sup>5</sup>Dept. Infect. Dis., Hiroshima Univ. Hosp.)

**P2-173****Antimicrobial activity of Red ginseng extracts against multidrug-resistant MRSA**

○Sakura Tsutamoto<sup>1</sup>, Keiichi Samukawa<sup>2</sup>, Hiroshi Iwao<sup>1</sup>, Yasuhiko Horiguchi<sup>3</sup>, Mayuko Osada-Oka<sup>1</sup> (<sup>1</sup>Food. Hyg. Env. Health, Life Env. Sci., Kyoto Pref. Univ., <sup>2</sup>Dept. Pharm., Osaka Metropolitan Univ., Grad. Sch. Med., <sup>3</sup>Dept. Mo. Bacteriol., RIMD, Osaka Univ.)

**P2-174****Gain of resistance to bedaquiline by overexpression of trypanosomal ASCT in *Mycobacterium smegmatis***

○Bundutidi M. Gloria<sup>1</sup>, Yuri Ando<sup>2</sup>, Yuichi Matsuo<sup>3</sup>, Mizuki Hayashishita<sup>1</sup>, Gregory M. Cook<sup>4</sup>, Takaya Sakura<sup>1</sup>, Shinjiro Hamano<sup>1</sup>, Kenji Hirayama<sup>1</sup>, Kiyoshi Kita<sup>1,5</sup>, Daniel K. Inaoka<sup>1,5</sup> (<sup>1</sup>Nagasaki Univ., <sup>2</sup>Oita Univ., <sup>3</sup>Kumamoto Univ., <sup>4</sup>Univ. of Otago, <sup>5</sup>The Univ. of Tokyo)

**P2-175****Analysis of *Aeromonas* spp. isolated from gut contents of freshwater fish in Vietnam**

○Takahiro Yamaguchi<sup>1</sup>, Michio Jinnai<sup>2</sup>, Atsushi Hase<sup>3</sup>, Yuko Kumeda<sup>4</sup>, Tatsuya Nakayama<sup>5</sup> (<sup>1</sup>Div. Microbiol., Osaka Inst. Public Health, <sup>2</sup>Div. Microbiol., Kanagawa pref. Inst. Public Health, <sup>3</sup>Fac. Contemporary Human Life Sci., Tezukayama Univ., <sup>4</sup>Res. Center for Micro. Control, Osaka Pref. Univ, <sup>5</sup>Grad. Sch. Int. Sci. for Life, Hiroshima Univ.)

**P2-176****High throughput screening of metallo-β-lactamase inhibitors**

○Liping Wen, Katsuhiko Ono, Tianli Zhang, Touya Toyomoto, Hiroyasu Tsutsuki, Tomohiro Sawa (Dept. Microbiol., Grad. Sch. Med. Sci. Kumamoto Univ.)

**P2-177****Spread of ESBL-producing Enterobacteriaceae isolated from gut contents of freshwater fish in Vietnam**

○Michio Jinnai<sup>1</sup>, Takahiro Yamaguchi<sup>2</sup>, Atsushi Hase<sup>3</sup>, Yuko Kumeda<sup>4</sup>, Tatsuya Nakayama<sup>5</sup> (<sup>1</sup>Div. Microbiol., Kanagawa pref. Inst. Public Health, <sup>2</sup>Div. Microbiol., Osaka Inst. Public Health, <sup>3</sup>Fac. Contemporary Human Life Sci., Tezukayama Univ., <sup>4</sup>Res. Center for Micro. Control, Osaka metropolitan Univ., <sup>5</sup>Grad. Sch. Int. Sci. for Life, Hiroshima Univ.)

**P2-178****Antimicrobial Cross-Resistance Mechanisms of Antiseptic-Resistant *Acinetobacter baumannii***

○Mako Kawai<sup>1</sup>, Yoshimi Yasuda<sup>1</sup>, Jun-ichi Yamagishi<sup>2</sup> (<sup>1</sup>Fac. Pharm. Sci., Himeji Dokkyo Univ., <sup>2</sup>ISIR, Osaka Univ.)

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**7. Antimicrobial agents and resistance -c. Others**


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**P2-179****Transcriptome analysis on kexD-expressing mutant in *Klebsiella pneumoniae***

○Wakano Ogawa<sup>1</sup>, Daichi Morita<sup>2</sup>, Futoshi Mastubara<sup>1</sup>, Teruo Kuroda<sup>2</sup> (<sup>1</sup>Dept. Microbiol. & Biochem., Daiichi Univ. of Pharmacy, <sup>2</sup>Grad. Sch. Bio. Heal. Sci., Hiroshima Univ.)

**P2-180****Analysis of lytic enzyme CD018980 of *Clostridioides difficile***

○Hiroshi Sekiya, Saki Kobayashi, Ikumi Takahashi, Eiji Tamai (Dept. Infect. Disease., Col. Pharma. Sci., Matsuyama Univ.)

**P2-181****Development of Cas13a-phagecapsid to eliminate enterotoxigenic *Bacteroides fragilis***

○Thuy Nguyen<sup>1</sup>, Arbaah Mahmoud<sup>1</sup>, Yoshifumi Aiba<sup>1</sup>, Shinya Watanabe<sup>1</sup>, Kazuhiko Miyanaga<sup>1</sup>, Xin-Ee Tan<sup>1</sup>, Sasahara Teppei<sup>1</sup>, Longzhu Cui<sup>1</sup> (<sup>1</sup>Div. Bacteriol, Sch. Med., Jichi Med. Univ., <sup>2</sup>Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

**P2-182****Isolation and characterization of broad-host-range bacteriophage targeting *Escherichia coli* strains**

○Thi My Duyen Ho, Kanate Thitiananpakorn, Ola Alessa, Kazuhiko Miyanaga, Shinya Watanabe, Yoshifumi Aiba, Xin-Ee Tan, Veeranarayanan Srivani, Longzhu Cui (Div. Bacteriol, Sch. Med., Jichi Med. Univ.)

**P2-183****Isolation and analysis of phages infecting clinical isolates of IMP-6-producing *K. pneumoniae***

○Mitsuoki Kawano<sup>1</sup>, Kohei Kondo<sup>2</sup> (<sup>1</sup>Dept. Nutritional Sci., Nakamura Gakuen Univ., <sup>2</sup>Antimicro. Resist. Res. Cent., Nat. Inst. Infect. Dis.)

**8. Others****P2-184/W11-7****Comparison of analgesic effect between botulinum toxin A1 and A2 on cancer pain**

○Manami Akeyoshi<sup>1</sup>, Tomoko Kohda<sup>2</sup>, Yasushi Torii<sup>1</sup> (<sup>1</sup>Grad. Sch. Tokyo Univ. of Agriculture, <sup>2</sup>Osaka Metropolitan Univ.)

**P2-185****Hygiene technology for plant nutrient solution using nonequilibrium atmospheric pressure plasma jets**

○Mutsumi Aihara<sup>1</sup>, Takuto Izumi<sup>1</sup>, Akihiro Shirai<sup>1</sup>, Takashi Mukai<sup>2</sup>, Retsuo Kawakami<sup>1</sup> (<sup>1</sup>Grad. Sch. Tech. Indust. and Social Sci, Tokushima Univ., <sup>2</sup>Nichia corp.)

**Luncheon Seminar****LS1**

Thursday, March 16 11:55–12:55  
Room 2 (Medium Hall)

Sponsored by: GeneBay, Inc./Oxford Nanopore Technologie

**LS1-1****Bacterial genome analysis by nanopore sequencing**

○Yasuo Uemura, Akito Nishizawa (GeneBay, Inc.)

**LS1-2****Bacterial genome analysis by nanopore sequencing**

Yasuo Uemura<sup>1</sup>, Akito Nishizawa<sup>1</sup>, ○Jihye Kim<sup>2</sup> (<sup>1</sup>GeneBay, Inc., <sup>2</sup>K.K. Oxford Nanopore Technologies)

**LS2**

Thursday, March 16 11:55–12:55  
Room 3 (407)

Sponsored by: bitBiome, Inc.

**LS2****Microbial single cell genomics: advances and future perspectives**

○Masahito Hosokawa<sup>1,2</sup> (<sup>1</sup>Waseda Univ., <sup>2</sup>bitBiome, Inc)

**LS3**

Thursday, March 16 11:55–12:55  
Room 4 (408)

Sponsored by: Twist Bioscience, JAPAN

**LS3-1****Metagenomics in lung tumor tissue using shotgun sequencing with high nucleotide diversity**

○Yuya Kiguchi, Taketoshi Mizutani, Yutaka Suzuki (Dept. Computational Biology and Medical Sciences, Grad. Sch. Frontier Sciences, the Univ. Tokyo)

**LS3-2****#We Make DNA - Writing the Future: Twist NGS Solutions Pioneering Bacterial Genomics Research**

○Toshiki Taya (Senior Manager, Field Application Scientist, APAC, Twist Bioscience)