

## On-demand Presentation

### 1 Microbial Taxonomy

#### a. Phylogenetic Analyses, Taxonomy, and Typing

##### ODP-001

#### *Veillonella nakazawae* sp. nov., isolated from the oral cavity of Japanese children

○Izumi Mashima<sup>1,2</sup>, Citra F. Theodorea<sup>3</sup>, Futoshi Nakazawa<sup>3</sup>, Ariadna A. Djais<sup>3</sup>, Tadao Kunihiro<sup>4</sup>, Yoshiaki Kawamura<sup>2</sup>, Masato Saitoh<sup>5</sup>, Maiko Otomo<sup>5</sup>, Riyoko Tamai<sup>1</sup>, Yusuke Kiyoura<sup>1</sup> (<sup>1</sup>Dept. Oral Med. Sci., Sch. Dent., Ohu Univ., <sup>2</sup>Dept. Microbiol., Sch. Pharm., Aich Gakuin Univ., <sup>3</sup>Dept. Oral Biol., Fac. Dent., Univ. Indonesia, <sup>4</sup>Techno Suruga Labo., Co. Ltd., <sup>5</sup>Dept. Ped. Dent., Sch. Dent., Heal. Sci Univ. Hokkaido)

##### ODP-002

#### Comparative genomic analysis of *Mycobacterium intracellulare* clinical strains

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

##### ODP-003

#### *Filobacterium* spp. found in human specimens constitutes an independent bacterial species

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

### 1 Microbial Taxonomy

#### b. Methods in Detection and Identification of Microbes

##### ODP-004

#### Examination of novel application of endolysin to improve GBS test

○Masaya Ogata<sup>1</sup>, Hidehito Matsui<sup>2</sup>, Tadahiro Nasukawa<sup>1</sup>, Iyo Uchiyama<sup>1</sup>, Masato Higashide<sup>3</sup>, Masahiro Sakaguchi<sup>1</sup>, Hideaki Hanaki<sup>2</sup>, Jumpei Uchiyama<sup>1</sup> (<sup>1</sup>Dept. Microbio, Sch. Vet., Azabu Univ., <sup>2</sup>Dept. Infect. Control, Lab. Omura., Kitazato Univ., <sup>3</sup>Lab. Kotobiken)

##### ODP-005

#### Prevalence and antimicrobial resistance of *Salmonella* in poultry in Yamaguchi

○Tomoya Yamamoto<sup>1</sup>, Hajime Toyofuku<sup>2</sup>, Tomoko Mizote<sup>3</sup> (<sup>1</sup>Dept. Health and Welfare, Grad. Sch., Yamaguchi Pref. Univ., <sup>2</sup>Joint Fac. Vet. Med., Yamaguchi Univ., <sup>3</sup>Dept. Nurs. and Nutr., Yamaguchi Pref. Univ.)

##### ODP-006

#### Evaluation of quantitative 16S metagenomic analysis using spike-in archaeal genome

○Ayumu Ohno<sup>1</sup>, Mano Takahashi<sup>1</sup>, Takuya Habara<sup>1</sup>, Kirill Kryukov<sup>2</sup>, So Nakagawa<sup>1</sup>, Tadashi Imanishi<sup>1</sup> (<sup>1</sup>Dept. Molecular Life Science., Sch. Med., Tokai Univ., <sup>2</sup>Dept. Genomics and Evolutionary Biology, National Institute of Genetics)

### 1 Microbial Taxonomy

#### c. Others

##### ODP-007

#### Diversification of *Porphyromonas gingivalis* standard strains revealed by difference in proliferation

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

### 2 Microbial Ecology

#### a. Ecology, Symbiosis, and Environmental Microbiology

##### ODP-008/WS4-7

#### A symbiotic relationship between intestinal lymphoid tissue resident *Alcaligenes* and dendritic cells

○Koji Hosomi<sup>1</sup>, Naoko Shibata<sup>1,2,3</sup>, Atsushi Shimoyama<sup>4</sup>, Tomoya Uto<sup>4</sup>, Takahiro Nagatake<sup>1</sup>, Haruko Takeyama<sup>3</sup>, Koichi Fukase<sup>4</sup>, Hiroshi Kiyono<sup>2</sup>, Jun Kunisawa<sup>1,2,3,4,5</sup> (<sup>1</sup>National Institutes of Biomedical Innovation, Health, and Nutrition, <sup>2</sup>The Univ. of Tokyo, <sup>3</sup>Waseda Univ., <sup>4</sup>Osaka Univ., <sup>5</sup>Kobe Univ.)

##### ODP-009/WS4-1

#### Detection of airborne bacteria by the handmade air sampler build by 3D printer

○Torahiko Okubo<sup>1</sup>, Satoru Miyazaki<sup>1</sup>, Masato Sumi<sup>1</sup>, Jeewan Thapa<sup>2</sup>, Hiroyuki Yamaguchi<sup>1</sup> (<sup>1</sup>Fac. Health Science, Hokkaido Univ., <sup>2</sup>Res. Cent. Zoonosis Control Hokkaido Univ.)

##### ODP-010/WS4-2

#### Analysis of *Legionella*-containing vacuoles in *Paramecium* hosts

○Kenta Watanabe, Takashi Shimizu, Masahisa Watarai (Dept. Vet Med., Yamaguchi Univ.)

##### ODP-011

#### Bacterial transport by amoeba that depend on symbiotic bacteria involves the Na<sup>+</sup>/H<sup>+</sup> antiporter NhaA

○Nana Tanaka<sup>1</sup>, Torahiko Okubo<sup>1</sup>, Toyotaka Sato<sup>2</sup>, Shin-ichi Yokota<sup>2</sup>, Jeewan Thapa<sup>3</sup>, Hiroyuki Yamaguchi<sup>1</sup> (<sup>1</sup>Fac. Health Sci., Hokkaido Univ., <sup>2</sup>Fac. Med, Sapporo Med. Univ., <sup>3</sup>Res. Cent. Zoonosis Control Hokkaido Univ.)

##### ODP-012

#### Interaction between ciliates and *Legionella* separated from sewage treatment plants using syringe

○Airi Kawashiro<sup>1</sup>, Reiji Onuma<sup>1</sup>, Torahiko Okubo<sup>1</sup>, Jeewan Thapa<sup>2</sup>, Hiroyuki Yamaguchi<sup>1</sup> (<sup>1</sup>Fac. Health Science, Hokkaido Univ., <sup>2</sup>Res. Cent. Zoonosis Control Hokkaido Univ.)

**ODP-013****Suppresses of toxin release from *Clostridioide difficile* by intestinal microbes**

○Haruyuki Imaohji<sup>1</sup>, Miad Elahi<sup>1</sup>, Masahito Hashimoto<sup>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. Chem. Biotech., & Chemical Eng., Kagoshima Univ.)

**ODP-014****Evaluation of intestinal environmental viability of actinomycetes isolated from food**

○Akira Take<sup>1</sup>, Yoshihiko Sakaguchi<sup>1</sup>, Yuki Inahashi<sup>2</sup>, Kazuyoshi Gotoh<sup>3</sup>, Shunji Hayashi<sup>1</sup>, Naoki Omiya<sup>4</sup>, Haru Kato<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., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ., <sup>4</sup>Dept. Gastroenterol., Fujita Health Univ., <sup>5</sup>Dept. Bacteriol. II, NIID)

**ODP-015****Effect of Heat-killed *L. johnsonii* against coccoid formation and drug sensitivity of *H. pylori***

○Fuhito Hojo<sup>1</sup>, Takako Osaki<sup>2</sup>, Hideo Yonezawa<sup>2</sup>, Tomoko Hanawa<sup>2</sup>, Shigeru Kamiya<sup>3</sup>, Jiro Mitobe<sup>2</sup> (<sup>1</sup>Inst. Lab. Anim., Grad. Sch. Med., Kyorin Univ., <sup>2</sup>Dept. Infect. Dis., Kyorin Univ. Sch. Med., <sup>3</sup>Facult. Health Sci., Kyorin Univ.)

**ODP-016****Spatio-temporal analysis of mixed biofilms formation by skin bacteria**

○Kaori Tsuruyu<sup>1</sup>, Nobuhiko Nomura<sup>2,3</sup>, Andrew Shinichi Utada<sup>2,3</sup>, Nozomu Obana<sup>3,4</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, <sup>4</sup>TMRC, Fac. Med., Univ. Tsukuba)

**2 Microbial Ecology****b. Microbiota****ODP-017****Little effect of unlinked rRNA genes on the rRNA operon-based metagenomic analysis in equine samples**

○Yuta Kinoshita, Hidekazu Niwa, Eri Uchida, Toshio Nukada (Microbiol. Div., Equine Research Institute, JRA)

**ODP-018/WS4-8****Shotgun metagenome sequencing identification of microbial genes associated with an oral disease**

○Koji Yahara<sup>4</sup>, Hiroko Yahara<sup>1</sup>, Akimitsu Hiraki<sup>2</sup>, Yutaka Maruoka<sup>3</sup>, Aki Hirabayashi<sup>4</sup>, Masato Suzuki<sup>4</sup> (<sup>1</sup>Genome Med. Sci. P.J. (Toyama), R.I., NCGM, <sup>2</sup>Sec. Oral Oncol., Dep. Oral Maxillofac. Surg, Fukuoka Dental. Coll., <sup>3</sup>Dep. Oral Maxillofac. Surg, H.P., NCGM, <sup>4</sup>AMR Res. Ctr., NIID)

**ODP-019****Examination of *Vibrio cholerae* in Stools of Residents of Kolkata, India by Metagenomic Analysis**

○Keinosuke Okamoto<sup>1</sup>, Kei Kitahara<sup>1</sup>, Eizo Takahashi<sup>2</sup>, Shin-ichi Miyoshi<sup>3</sup>, Daisuke Motooka<sup>4</sup>, Shota Nakamura<sup>4</sup>, Tetsuya Iida<sup>4</sup> (<sup>1</sup>Colla. Res. Cent. Infect. Dis. Ind., Okayama Uni., <sup>2</sup>Heal. Pharm., Yokohama Pharm. Uni., <sup>3</sup>Grad. Sch. Med. Den. Pharm. Sci., Okayama Uni., <sup>4</sup>Res. Inst. Micro. Dis., Osaka Uni.)

**ODP-020****[Withdrawn]****ODP-021****Microbiota analysis of oral potentially malignant disorders and cancer site**

○Yawaka Shitozawa<sup>1,2</sup>, Kazumasa Fukuda<sup>1</sup>, Midori Ogawa<sup>1</sup>, Mitsumasa Saito<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., UOEH, <sup>2</sup>Dept. Dentistry and Oral Surgery, Hospital, UOEH)

**ODP-022****The role of Environmental Water in Kolkata, India in the survival of *Vibrio cholerae* in this area**

○Kei Kitahara<sup>1</sup>, Eizo Takahashi<sup>2</sup>, Shin-ichi Miyoshi<sup>3</sup>, Keinosuke Okamoto<sup>1</sup> (<sup>1</sup>Colla. Res. Cent. Infect. Dis. Ind., Okayama Uni., <sup>2</sup>Heal. Pharm., Yokohama Pharm. Uni., <sup>3</sup>Grad. Sch. Med. Den. Pharm. Sci., Okayama Uni.)

**2 Microbial Ecology****c. Habitats, and Culture Conditions****ODP-023****Na<sup>+</sup>/H<sup>+</sup> antiporter regulates desiccation tolerance in *Escherichia coli***

○Yoshiaki Enoeda<sup>1</sup>, Nana Tanaka<sup>1</sup>, Torahiko Okubo<sup>1</sup>, Toyotaka Sato<sup>2</sup>, Shin-ichi Yokota<sup>2</sup>, Jeewan Thapa<sup>3</sup>, Hiroyuki Yamaguchi<sup>1</sup> (<sup>1</sup>Fac. Health Science, Hokkaido Univ., <sup>2</sup>Fac. Med, Sap Med Univ., <sup>3</sup>Res. Cent. Zoonosis Control Hokkaido Univ.)

**ODP-024****Conditions for acid treatment and culture for obtaining acid-resistant strains of *Campylobacter***

○Kanta Hamaguchi, Nana Taniguchi, Manami Yamaoka, Yoko Eguchi (Dept. Food Sci. Tech., BOST. Kindai Univ.)

**ODP-025****Preservative efficacy test for eye drops (in-hospital preparation)**

○Rina Shimada<sup>1</sup>, Ryuta Nishi<sup>1</sup>, Akiko Okuda<sup>2</sup>, Yoichi Yamada<sup>1</sup>, Kana Sato<sup>2</sup>, Mana Kimura<sup>1</sup>, Sumiko Shiota<sup>1</sup>, Kazunobu Takayanagi<sup>2</sup> (<sup>1</sup>Dept. Molecular Biology., Sch. Pharm., Shujitsu Univ., <sup>2</sup>Dept. Pharm., Kurashiki Central Hospital)

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## 2 Microbial Ecology

### d. Others

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#### ODP-026

##### Mechanisms of bile acid tolerance in *Lactobacillus casei* ATCC27139

○Masahiro Ito, Nobuhiko Okada (Dept. Microbiol., Sch. Pha., Kitasato Univ.)

#### ODP-027

##### Effects of antibiotic treatment until weaning on nonalcoholic steatohepatitis in model mice

○Nozomi Fujimoto, Miyuu Higasa, Akiko Sakurai, Keiko Kataoka (Dept. Microbiol. Genetic Anal., Sch. Med., Tokushima Univ.)

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## 3 Microbial Structure and Physiology

### a. Cell Surface Structure, Membrane Structure, and Cytoskeleton

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#### ODP-028

##### Association of FtsZ with the intrabacterial nanotransportation system for *Helicobacter pylori* urease

○Hong Wu<sup>1</sup>, Shouichi Takayama<sup>1</sup>, Shoichi Sakaguchi<sup>1</sup>, Noritaka Iwai<sup>2</sup>, Youichi Suzuki<sup>1</sup>, Takashi Nakano<sup>1</sup> (<sup>1</sup>Dept. Microbiology and Infection Control, Osaka Medical College, <sup>2</sup>Grad. Sch. Bioscience and Biotechnology, Tokyo Institute of Technology)

#### ODP-029

##### Identification of glycopeptidolipid biosynthesis gene cluster from clinical *M. intracellulare* strain

○Nagatoshi Fujiwara<sup>1</sup>, Shin Nakaya<sup>2</sup>, Yuji Miyamoto<sup>3</sup>, Minoru Ayata<sup>4</sup>, Takashi Naka<sup>1</sup>, Shinji Maeda<sup>5</sup> (<sup>1</sup>Tezukayama Univ., <sup>2</sup>Otemae College of Nutrition, Dept Nutrition, <sup>3</sup>Leprosy Research Center, National Institute of Infectious Diseases, <sup>4</sup>Osaka City Univ. Grad. Sch. Medicine, Dept. Virology, <sup>5</sup>Hokkaido Univ. of Science, Fac. Pharmacy)

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## 3 Microbial Structure and Physiology

### b. Mobility

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#### ODP-030

##### Role of C-terminal regions of FlhG in polar flagellar number regulation in *Vibrio alginolyticus*

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

#### ODP-031/WS4-6

##### Rheotaxis in *Mycoplasma pneumoniae*

○Daisuke Nakane<sup>1</sup>, Yoshiki Kabata<sup>2</sup>, Takayuki Nishizaka<sup>2</sup> (<sup>1</sup>Dept. Eng. Sci., Univ. of Electro-Communications, <sup>2</sup>Dept. Phys., Gakushuin Univ.)

#### ODP-032

##### Evaluation of the effect of surface protein of *Treponema denticola* on motility

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

#### ODP-033/WS4-5

##### Role of seven proteins conferring *Spiroplasma* swimming motility to synthetic bacterium JCVI-syn3.0

○Hana Kiyama<sup>1</sup>, Shigeyuki Kakizawa<sup>2</sup>, Makoto Miyata<sup>1,3</sup> (<sup>1</sup>Grad. Sch. Sci., Osaka City Univ., <sup>2</sup>Bioproduction Research Institute, AIST, <sup>3</sup>OCARINA, Osaka City Univ.)

#### ODP-034/WS4-4

##### Structure of the helical cytoskeleton Fibril involved in *Spiroplasma* swimming revealed by cryoEM

○Yuya Sasajima<sup>1</sup>, Takayuki Kato<sup>2</sup>, Tomoko Miyata<sup>3</sup>, Keiichi Namba<sup>3,4,5</sup>, Makoto Miyata<sup>1</sup> (<sup>1</sup>Grad. Sch. Sci., Osaka City Univ., <sup>2</sup>IPR., Osaka Univ., <sup>3</sup>Grad. Sch. Front. Biosci., Osaka Univ., <sup>4</sup>BDR & SPring-8 Center, Riken, <sup>5</sup>JEOL Yokogushi Res. Alliance. Lab. Osaka Univ.)

#### ODP-035

##### Imaging of amphitrichous flagellar rotations in *Magnetospirillum magneticum* AMB-1

○Yukako Eguchi<sup>1</sup>, Yuta Takaoka<sup>2</sup>, So Kawamura<sup>2</sup>, Yoshihiro Fukumori<sup>3</sup>, Azuma Taoka<sup>2,3</sup> (<sup>1</sup>Car. Des. Lab. Gend. Equal., Kanazawa Univ., <sup>2</sup>Fac. Biol. Sci. Tech., Inst. Sci. Eng., Kanazawa Univ., <sup>3</sup>NanoLSI, Inst. Front. Sci. Init., Kanazawa Univ.)

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## 3 Microbial Structure and Physiology

### c. Others

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#### ODP-036

##### Existence of extracellular DNA in pathogenic mycobacteria and its role in mycobacterial physiology

○Aleksandr Vladimirovich Ilinov<sup>1,2</sup>, Amina Kaboso Shaban<sup>1</sup>, Mariko Hakamata<sup>1</sup>, Akihito Nishiyama<sup>1</sup>, Yuriko Ozeki<sup>1</sup>, Yukari Fukusima<sup>3</sup>, Chie Nakajima<sup>3</sup>, Yoshitaka Tateishi<sup>1</sup>, Yasuhiko Suzuki<sup>3</sup>, Sohkichi Matsumoto<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med. Niigata Univ., <sup>2</sup>Dept. General Surgery, Krasnoyarsk Med. Univ., <sup>3</sup>Division Bioresources, Hokkaido Univ. Research Center for Zoonosis Control)

**ODP-037****Comparison of cell morphology between the 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>2,5</sup>, Nagatoshi Fujiwara<sup>4</sup>, Shinji Maeda<sup>5</sup>, Satoshi Mitarai<sup>1</sup> (<sup>1</sup>Dept. Mycobac. Ref. Res., RIT, JATA, <sup>2</sup>NIPS, <sup>3</sup>Univ. Tsukuba, <sup>4</sup>Tezukayama Univ., <sup>5</sup>Hokkaido Univ. Science)

**ODP-038****Effect of electrical stimulation on synthesis of bacterial biofilm on a metal**

○Hiroyuki Taira<sup>1</sup>, Minoru Yaga<sup>2</sup>, Tetsu Yamashiro<sup>3</sup> (<sup>1</sup>Dept. Orthop., Sch. Med., Univ. Ryukyus, <sup>2</sup>Dept. Mech. Sys. Engr., Fuc. Engr., Univ. Ryukyus, <sup>3</sup>Dept. Bacteriol., Sch. Med., Univ. Ryukyus)

**ODP-039****Localization of DPPs and dipeptide transporter Pot in *Porphyromonas gingivalis* defined by IEM**

○Yu Shimoyama<sup>1</sup>, Yuko Ohara-Nemoto<sup>2</sup>, Takayuki K Nemoto<sup>2</sup>, Taichi Ishikawa<sup>1</sup>, Daisuke Sasaki<sup>3</sup>, Yoshitoyo Kodama<sup>1</sup>, Shigenobu Kimura<sup>4</sup>, Minoru Sasaki<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Div. Mol. Microbiol., Iwate Med. Univ., <sup>2</sup>Dept. Oral Mol. Biol., Course Med. Dent. Sci., Nagasaki Univ. Grad. Sch. Biomed. Sci., <sup>3</sup>Dept. Conservative Dent., Div. Periodontol., Iwate Med. Univ., <sup>4</sup>Dept. Oral Hygiene, Kansai Women's College)

**4 Molecular Microbiology****a. Genome, Plasmids, Horizontal Gene Transfer, Mobile Genetic Elements, and Evolution****ODP-040/WS6-1****Prophages in prophages: a mechanism to accumulate T3SS effector and *stx* genes in *E. coli***

○Keiji Nakamura<sup>1</sup>, Yoshitoshi Ogura<sup>2</sup>, Yasuhiro Gotoh<sup>1</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ., <sup>2</sup>Dept. Infect. Med., Kurume Univ. Sch. Med.)

**ODP-041****Novel *tra/mob* operon for CA-MRSA plasmid's extremely high conjugative transfer/mobilization system**

○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. Edu. Res. Center, <sup>2</sup>Dept. Clin. Lab. Sci. Med. Biotechnol., National Taiwan Univ.)

**ODP-042****Genomic diversity of EHEC O157 clade 8 and variation in the *Stx2* and *Stx2* phage subtypes**

○Tatsuya Miyata<sup>1,2</sup>, Yoshitoshi Ogura<sup>1,3</sup>, Keiji Nakamura<sup>1</sup>, Yasuhiro Gotoh<sup>1</sup>, Dai Yoshimura<sup>4</sup>, Sunao Iyoda<sup>5</sup>, Takehiko Itoh<sup>4</sup>, Makoto Ohnishi<sup>5</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol. Fac. Med. Sci., Kyushu Univ., <sup>2</sup>Dept. Pediatr. Fac. Med. Sci., Kyushu Univ., <sup>3</sup>Dept. Infect. Med., Kurume Univ. Sch. Med., <sup>4</sup>Sch. Life Sci & Tech, Tokyo Tech, <sup>5</sup>Dept. Bacteriol. I, NIID)

**ODP-043****Genomic diversity and dynamics of *Stx* phages in EHEC O26:H11**

○Bungo Yano<sup>1</sup>, Keiji Nakamura<sup>1</sup>, Itsuki Taniguchi<sup>1</sup>, Yasuhiro Gotoh<sup>1</sup>, Yoshitoshi Ogura<sup>2</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ., <sup>2</sup>Dept. Infect. Med., Kurume Univ. Sch. Med.)

**ODP-044****Phylogenetic analysis of antimicrobial resistance plasmids by Bird's-eye mapping with Python**

○Yusuke Tsuda<sup>1</sup>, Jun-ichi Wachino<sup>1</sup>, Kouji Kimura<sup>1</sup>, Yoshichika Arakawa<sup>1,2</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Nagoya Univ., <sup>2</sup>Dept. Med. Tech., Shubun Univ.)

**ODP-045****Evolution of quorum sensing of *Ralstonia solanacearum***

○Chika Takemura<sup>1</sup>, Wakana Senuma<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. Agri. & Marine Sci., Kochi Univ., <sup>2</sup>Sch. Life & Environmental Sci., Osaka Pre Univ.)

**ODP-046****Genome analysis of "*Candidatus Rickettsia longicornii*" revealed unique mobile genetic elements**

○Kentaro Kasama<sup>1</sup>, Yasuhiro Gotoh<sup>1</sup>, Hiromi Fujita<sup>2</sup>, Seigo Yamamoto<sup>3</sup>, Yoshitoshi Ogura<sup>4</sup>, Shuji Ando<sup>5</sup>, Tetsuya Hayashi<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Fac. Med., Kyushu Univ., <sup>2</sup>Mahara acari Med. Lab., <sup>3</sup>(Former) Miyazaki Pref. Inst. for Pub. Health and Environment, <sup>4</sup>Div. Microbiol., Dept. Infectious Med., Kurume Univ., <sup>5</sup>NIID)

**ODP-047****Genetic analysis on the pathogenicity of *flaA* of *Aeromonas* spp.**

○Kazufumi Miyagi, Itaru Hirai (Lab. Microbiol., Sch. Health Sci., Fac. Med., Univ. of the Ryukyus)

**ODP-048/WS6-3*****Helicobacter cinaedi* is a human-specific lineage in the *H. cinaedi* complex**

○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. Bacteriol., Fac. Medical Sci., Kyushu Univ., <sup>2</sup>Dept. Vet Med Sci., Fac. Agric., Miyazaki Univ.)

**ODP-049****Retron structure of *Vibrio mimicus* and possibility of horizontal gene transfer**

Toshi Shimamoto<sup>1</sup>, Yojiro Ishida<sup>2</sup>, Hirofumi Nariya<sup>3</sup>, ○Tadashi Shimamoto<sup>1</sup> (<sup>1</sup>Food Microbiol. Hygiene, Grad. Sch. Integrated Sci. Life, Hiroshima Univ., <sup>2</sup>St. Jude Children's Res. Hosp., <sup>3</sup>Fac. Human Life, Jumonji Univ.)

#### ODP-050

##### **Comparative genomic analyses of *Helicobacter cinaedi* and its close relatives *Helicobacter* spp.**

○Junko Tomida<sup>1</sup>, Ryo Kutsuna<sup>1</sup>, Tohru Miyoshi-Akiyama<sup>2</sup>, Yoshiaki Kawamura<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Pharm., Aichi Gakuin Univ., <sup>2</sup>Pathogen Microbe. Lab., Nat. Center Global Health & Med.)

#### ODP-051

##### **Genome analysis of hard tick-borne relapsing fever *borreliæ***

○Ai Takano<sup>1</sup>, Ranna Nakao<sup>1</sup>, Kentaro Kasama<sup>2</sup>, Yoshitoshi Ogura<sup>3</sup>, Atsushi Toyoda<sup>4</sup>, Tetsuya Hayashi<sup>2</sup>, Ken Maeda<sup>5</sup> (<sup>1</sup>Dept. Vet. Med., Joint Fac. Vet. Med., Yamaguchi Univ., <sup>2</sup>Dept. Bact., Fac. Med. Sci., Kyushu Univ., <sup>3</sup>Dept. Infect. Med., Kurume Univ. Sch. Med., <sup>4</sup>Dept. Genom. Evol. Biol., Natl. Inst. Genetics, <sup>5</sup>Dept. Vet. Sci., Natl. Inst. Infect. Dis.)

#### ODP-052

##### **Genomic diversification of *Streptococcus pyogenes* through type II DNA methyltransferase on prophage**

○Atsushi Ota, Kyoko Yarimizu, So Fujiyoshi, Fumito Maruyama (Office of Academic Research and Industry-Government Collaboration, Academy of Hiroshima Univ.)

#### ODP-053

##### **Genomic analysis of ST1/spa-t1784 type MRSA isolates which were prevalent in Kanto region**

○Kohei Ogura<sup>1</sup>, Tohru Miyoshi-Akiyama<sup>2</sup>, Ken Kikuchi<sup>3</sup> (<sup>1</sup>Front. Sci. Init., Kanazawa Univ., <sup>2</sup>Pathog. Microb. Lab., Res. Inst., NCGM, <sup>3</sup>Dept. Infect. Dis. Tokyo Women's Med. Univ.)

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## 4 Molecular Microbiology

### b. Regulation of Gene Expression

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#### ODP-054

##### **PorA, a C-terminal domain-containing protein, impacts gene expression of the T9SS**

○Hideharu Yukitake<sup>1</sup>, Mikio Shoji<sup>1</sup>, Keiko Sato<sup>1</sup>, Yusuke Handa<sup>2</sup>, Mariko Naito<sup>1</sup>, Katsumi Imada<sup>2</sup>, Koji Nakayama<sup>1</sup> (<sup>1</sup>Dep. Micro. Oral Infect., Grad. Sch. Bio. Sci., Nagasaki Univ., <sup>2</sup>Dep. Macromol. Sci., Grad. Sch. Sci., Osaka Univ.)

#### ODP-055

##### **Post-transcriptional regulation by RodZ protein essential for rod shape of bacilli (2)**

○Jiro Mitobe, Hideo Yonezawa, Tomoko Hanawa, Takako Osaki (Dept. Infect. Dis., Sch. Med. Kyorin Univ.)

#### ODP-056

##### **Involvement of uncharacterized *ytjL* gene of *Salmonella* in polyamine tolerance**

○Yumi Iwadate, Rouhallah Ramezanifard, Yekaterina A Golubeva, Luke A Fenlon, James M Schlauch (Dept. Microbiology, Univ. of Illinois at Urbana-Champaign)

#### ODP-057/WS6-7

##### **Analysis of regulatory mechanisms of novel Toxin-antitoxin systems found in EHEC O157 Sakai**

○Shinya Ebihara, Rina Kojima, Hilo Yen, Toru Tobe (Dept. Clinic. Lab. Med. Sci., Grad. Sch. Med., Osaka Univ.)

#### ODP-058

##### **Functional analysis of small regulatory RNA encoded by Shiga toxin-converting phage**

○Naoki Sudo<sup>1</sup>, Marika Sasaki<sup>1</sup>, Takuya Imafuku<sup>1</sup>, Sunao Iyoda<sup>2</sup>, Nobuhiko Okada<sup>1</sup> (<sup>1</sup>Lab. Microbiol., Sch. Pharm., Kitasato Univ., <sup>2</sup>Dept. Bacteriol., Natl. Inst. Infect. Dis.)

#### ODP-059

##### **Regulation of sRNA1 expression by ArcA in *Vibrio alginolyticus***

○Takehiko Mima<sup>1</sup>, Agus Eka Darwinata<sup>2</sup>, Kazuyoshi Gotoh<sup>1</sup>, Yumiko Yamamoto<sup>1</sup>, Osamu Matsushita<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci., <sup>2</sup>Dept. Clin. Microbiol., Fac. Med., Udayana Univ., Indonesia)

#### ODP-060/WS6-8

##### **Regulation of sRNA1 expression by Lrp in *Vibrio alginolyticus***

○Chieko Hino, Takehiko Mima, Naoya Isomura, Kazuyoshi Gotoh, Yumiko Yamamoto, Osamu Matsushita (Dept. Bacteriol., Okayama Univ. Grad. Sch. Med. Dent. Pharm. Sci.)

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## 4 Molecular Microbiology

### c. Protein Structure and Function

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#### ODP-061

##### **Novel carbohydrate binding mechanism of proteins secreted by the T9SS in periodontal pathogens**

○Mikio Shoji<sup>1</sup>, Paul D. Veith<sup>2</sup>, Koji Nakayama<sup>1</sup>, Eric C. Reynolds<sup>2</sup>, Mariko Naito<sup>1</sup> (<sup>1</sup>Dep. Micro. Oral Infect., Grad. Sch. Bio. Sci., Nagasaki Univ., <sup>2</sup>Oral Health Coop. Res. Cent., Mel. Dent. Sch., Mel. Univ.)

#### ODP-062/WS6-4

##### **Functional hierarchy of JDP in biofilm formation and thermal adaptation of *E. coli***

○Shinya Sugimoto<sup>1</sup>, Kunitoshi Yamanaka<sup>2</sup>, Tatsuya Niwa<sup>3</sup>, Yurika Terasawa<sup>1</sup>, Yoshimitsu Mizunoe<sup>1</sup>, Teru Ogura<sup>2</sup>, Yuki Kinjo<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Jikei Univ. Schol. Med., <sup>2</sup>IMEG, Kumamoto Univ., <sup>3</sup>Cell Biol. Cent., Tokyo Inst. Technol.)

**ODP-063/WS6-6****Structure-based investigation of hyaluronidase activity in *Streptococcus pyogenes***

○Kotaro Higashi<sup>1,2</sup>, Masaya Yamaguchi<sup>1</sup>, Masanobu Nakata<sup>1,3</sup>, Katsuki Takebe<sup>4</sup>, Tomoko Sumitomo<sup>1</sup>, Mamoru Suzuki<sup>5</sup>, Shigetada Kawabata<sup>1</sup> (<sup>1</sup>Dept. Oral Microbiol., Grad. Sch. Dent., Osaka Univ., <sup>2</sup>Dept. Prosthodont. Gerodontol. Oral Rehabil., Grad. Sch. Dent., Osaka Univ., <sup>3</sup>Dept. Oral Microbiol., Grad. Sch. Med. & Dent. Sci., Kagoshima Univ., <sup>4</sup>Dept. Oral Maxillofacial Surg. II, Grad. Sch. Dent., Osaka Univ., <sup>5</sup>Inst. Protein Res., Osaka Univ.)

**ODP-064****Magnetosomal protein MamJ regulates polymerization of MamK cytoskeleton for magnetosome positioning**

○Takumi Saito<sup>1</sup>, Yousuke Kikuchi<sup>2</sup>, Yoshihiro Fukumori<sup>3</sup>, Azuma Taoka<sup>2,3</sup> (<sup>1</sup>Grad. Sch. Natural Science and Technology, Kanazawa Univ., <sup>2</sup>Institute of Science and Engineering, Kanazawa Univ., <sup>3</sup>WPI-NanoLSI, Kanazawa Univ.)

**ODP-065****A small structural change of FlIM induces rotational direction change of bacterial flagellar motor**

Norihiro Takekawa<sup>1</sup>, Tatsuro Nishikino<sup>2</sup>, Toshiki Yamashita<sup>1</sup>, Kiyoshiro Hori<sup>3</sup>, Yasuhiro Onoue<sup>4</sup>, Kunio Ihara<sup>5</sup>, Seiji Kojima<sup>3</sup>, Katsumi Imada<sup>1</sup>, ○Michio Homma<sup>3</sup> (<sup>1</sup>Dep. Macromol. Sci., Osaka Univ., <sup>2</sup>Inst. Protein Res., Osaka Univ., <sup>3</sup>Div. Biol. Sci., Grad. Sch. Sci., Nagoya Univ., <sup>4</sup>College Life Sci., Ritsumeikan Univ., <sup>5</sup>Center Gene Res., Nagoya Univ.)

**ODP-066****Characterization of TsaA/TsaT TA system in *Staphylococcus aureus***

○Fuminori Kato (Grad. Sch., Biomed. Heal. Sci., Hiroshima Univ.)

**ODP-067****Structural basis of bacterial actin MreB involved in *Spiroplasma* swimming**

○Daichi Takahashi<sup>1</sup>, Ikuko Fujiwara<sup>1,2</sup>, Katsumi Imada<sup>3</sup>, Makoto Miyata<sup>1,2</sup> (<sup>1</sup>Grad. Sch. Sci., Osaka City Univ., <sup>2</sup>OCARINA, Osaka City Univ., <sup>3</sup>Grad. Sch. Sci., Osaka Univ.)

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**4 Molecular Microbiology**  
**d. Secretion and Transport**

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**ODP-068****MRSA-derived membrane vesicles act as an IgE-mediated stimulant to induce hypersensitivity**

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

**4 Molecular Microbiology****e. Intra- and Inter-cellular Signal Transduction****ODP-069****Strategies used by *Leptospira interrogans* to disassemble the epithelial apical junctional complex**

Isabel Sebastián<sup>1</sup>, Nobuhiko Okura<sup>2</sup>, Bruno M. Humbel<sup>3</sup>, Jun Xu<sup>1</sup>, Malgorzata Hall<sup>3</sup>, Chitoshi Takayama<sup>2</sup>, Tetsu Yamashiro<sup>1</sup>, Shuichi Nakamura<sup>4</sup>, ○Claudia Toma<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Univ. of the Ryukyus, <sup>2</sup>Dept. Mol. Anatomy, Grad. Sch. Med., Univ. of the Ryukyus, <sup>3</sup>Imaging Section, OIST, <sup>4</sup>Applied Physics, Grad. Sch. Eng., Tohoku Univ.)

**ODP-070****Purification of membrane vesicles from Gram-positive bacteria using flow cytometry**

○Tadahiro Nasukawa<sup>1</sup>, Ryosuke Sugimoto<sup>1</sup>, Jumpei Uchiyama<sup>1</sup>, Iyo Uchiyama<sup>1</sup>, Hironobu Murakami<sup>1</sup>, Ken Fukuda<sup>2</sup>, Shigenobu Matsuzaki<sup>2</sup>, Masahiro Sakaguchi<sup>1</sup> (<sup>1</sup>Sch. Vet. Med., Azabu Univ., <sup>2</sup>Sch. Med., Kochi Univ.)

**ODP-071****Physical properties measurements of bacterial membrane vesicles bound in living cell surface**

○Yousuke Kikuchi<sup>1</sup>, Yuuki Ichinaka<sup>1</sup>, Masanori Toyofuku<sup>2,3</sup>, Nozomu Obana<sup>3,4</sup>, Nobuhiko Nomura<sup>2,3</sup>, Azuma Taoka<sup>1,5</sup> (<sup>1</sup>Inst. of Sci. and Eng., Kanazawa Univ., <sup>2</sup>Life and Env. Sci., Tsukuba Univ., <sup>3</sup>Microbiol. Res. Ctr. Sustain., Tsukuba Univ., <sup>4</sup>Trans. Med. Res. Ctr., Tsukuba Univ., <sup>5</sup>WPI Nano Life Sci. Inst., Kanazawa Univ.)

**ODP-072****The role of OMVs in biofilm formation by *Aeromonas* strain**

○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. of Med. Microbiol., Dept. Health Pharm., Yokohama Univ. of Pharm., <sup>3</sup>Collab. Res. Ctr. Okayama Univ.)

**ODP-073****Quorum-sensing-mediated heterogeneity in *Clostridium perfringens* biofilm**

○Tabushi Yoshihiko<sup>1</sup>, Nozomu Obana<sup>2,3</sup>, Nobuhiko Nomura<sup>3,4</sup> (<sup>1</sup>Grad. Sch. Life Environ. Sci., Tsukuba Univ., <sup>2</sup>TRMC, Fac. Med., Tsukuba Univ., <sup>3</sup>MiCS, Tsukuba Univ. Fac., <sup>4</sup>Life Environ. Sci., Tsukuba Univ.)

**ODP-074****Chemotaxis of an obligate anaerobic bacteria, *Clostridium sporogenes***

○So-ichiro Nishiyama, Susumu Oogoshi, Shota Manabe, Hiroshi Urakami (Fac. App. Life Sci., Niigata Univ. Pharm. App. Life Sci.)

#### ODP-075

##### Contribution of p21-activated kinase PAK to hyphal growth in *Trichophyton rubrum*

○Masaki Ishii<sup>1,2</sup>, Shinya Ohata<sup>1,2</sup>, Tsuyoshi Yamada<sup>3</sup>, Hideko Uga<sup>1,2</sup>, Toshiaki Katada<sup>1,2</sup> (<sup>1</sup>Mol. Cell Biol. Lab., Fac. Pharm., Musashino Univ., <sup>2</sup>Mol. Cell Biol. Lab., Res. Inst. Pharm. Sci., Musashino Univ., <sup>3</sup>Inst. Med. Mycol., Teikyo Univ.)

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#### 4 Molecular Microbiology

##### f. Microbial Metabolism

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#### ODP-076

##### Functional analysis of isoprenyl diphosphate synthases from mycobacteria

○Tohru Abe, Sadamu Ozaki, Daijiro Ueda, Tsutomu Sato (Grad. Sch. Sci. Technol., Niigata Univ.)

#### ODP-077

##### Longevity regulation by reactive sulfur species in yeast

○Minkyung Jung<sup>1</sup>, Akira Nishimura<sup>2</sup>, Tomoaki Ida<sup>1</sup>, Masanobu Morita<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Hiroshi Takagi<sup>2</sup>, Hozumi Motohashi<sup>3</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environmental Medicine and Molecular Toxicology, Tohoku Univ. Grad. Sch. Medicine, <sup>2</sup>Laboratory of Applied Stress Microbiology, Div. Biological Science, Nara Institute of Science and Technology, <sup>3</sup>Dept. Gene Expression Regulation, IDAC, Tohoku Univ.)

#### ODP-078/WS6-5

##### Longevity is dependent on sulfide:quinone oxidoreductase mediated energy metabolism in fission yeast

○Masanobu Morita<sup>1</sup>, Akira Nishimura<sup>2</sup>, Tomoaki Ida<sup>1</sup>, Minkyung Jung<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Tsuyoshi Takata<sup>1</sup>, Hozumi Motohashi<sup>3</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., <sup>2</sup>Grad. Sch. Biol. Sci., NAIST, <sup>3</sup>Dept. Gene Expression Regulation, IDAC, Tohoku Univ.)

#### ODP-079

##### The emergence of novobiocin-resistant mutants in actinomycetes and their characteristics

○Nanase Takaba<sup>1,2</sup>, Kanata Hoshino<sup>2,3</sup>, Ryoko Hamazu<sup>2</sup>, Takeshi Hosaka<sup>1,2,3</sup> (<sup>1</sup>Fac. of Agric. Shinshu Univ., <sup>2</sup>IBS-ICCER, Shinshu Univ., <sup>3</sup>Grad. Sch. of Med. Sci. and Technol. Shinshu Univ.)

#### ODP-080

##### Discovery of reactive sulfur biosynthesis pathway mediated by aminoacyl-tRNA synthetase in bacteria

○Tomoaki Ida<sup>1</sup>, Minkyung Jung<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Akira Nishimura<sup>2</sup>, Masanobu Morita<sup>1</sup>, Tsuyoshi Takata<sup>1</sup>, Hozumi Motohashi<sup>3</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, NAIST., <sup>3</sup>Dept. Gene Exp. Regulation, IDAC, Tohoku Univ.)

#### ODP-081

##### The dose-dependent positive effects of lincomycin on secondary metabolism in streptomycetes

○Keiichiro Mukai<sup>1,4</sup>, Misaki Ishizuka<sup>2,4</sup>, Yu Imai<sup>3</sup>, Momoko Kobayashi<sup>2,4</sup>, Kanata Hoshino<sup>1,4</sup>, Takeshi Hosaka<sup>1,2,4</sup> (<sup>1</sup>Grad. Sch. of Med. Sci. and Technol., Shinshu Univ., <sup>2</sup>Grad. Sch. Sci. and Technol., Shinshu Univ., <sup>3</sup>Northeastern Univ., <sup>4</sup>IBS-ICCER, Shinshu Univ.)

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#### 4 Molecular Microbiology

##### g. Omics, and Bioinformatics

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#### ODP-082/WS6-2

##### Single-cell level analysis of strain-level microbial diversity in human skin microbiome

○Tatsuya Saeki<sup>1,2</sup>, Koji Arikawa<sup>1,2</sup>, Takuya Yoda<sup>1,2</sup>, Taruho Endoh<sup>1</sup>, Keigo Ide<sup>3,4</sup>, Masato Kogawa<sup>3,4</sup>, Haruko Takeyama<sup>2,3,4,5</sup>, Masahito Hosokawa<sup>1,2,5</sup> (<sup>1</sup>bitBiome, Inc., <sup>2</sup>Research Organization for Nano and Life Innovation, Waseda Univ., <sup>3</sup>Dept. Life Science and Medical Bioscience, Waseda Univ., <sup>4</sup>Computational Bio Big-Data Open Innovation Laboratory, AIST-Waseda Univ., <sup>5</sup>Institute for Advanced Research of Biosystem Dynamics, Waseda Research Institute for Science and Engineering, Waseda Univ.)

#### ODP-083

##### Within-host diversity of pathogens in bacteremia based on metagenomic and deep-sequencing approach

○Taiki Sonoda<sup>1</sup>, Yasuhiro Gotoh<sup>2</sup>, Ruriko Nishida<sup>2,3</sup>, Nobuyuki Shimono<sup>4</sup>, Keiji Nakamura<sup>2</sup>, Tetsuya Hayashi<sup>2</sup> (<sup>1</sup>Dept. Biomed. Sci., Fact. Med., Kyushu Univ., <sup>2</sup>Dept. Bact., Grad. Sch. Med. Sci., Kyushu Univ., <sup>3</sup>Dept. Clin. Chem. Lab. Med., Kyushu Univ. Hosp., <sup>4</sup>Center Study Global Infect., Kyushu Univ. Hosp.)

#### ODP-084

##### Development of a qRT-PCR method of fecal bacteria responsible for transformation of bile acids

○Satoshi Yuhara, Yuma Oka, Yuki Kawasaki, Kosei Tanaka, Koichiro Murashima, Kazuya Omi (H.U. group Reserch Inst.)

#### ODP-085

##### Development of a highly specific and quantitative qPCR panel for monitoring of microbiome

○Takeru Nakabayashi, Satoshi Yuhara, Koichiro Murashima, Kazuya Omi (H.U. group Research Inst.)

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#### 4 Molecular Microbiology

##### h. Others

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#### ODP-086

##### YecE is an endogenous inhibitor of cytoskeleton protein FtsZ in *Escherichia coli*

○Nozomi Shimamoto, Yoshihiro Yamaguchi (Grad. Sch. Sci., Osaka City Univ.)

## 5 Pathogens and Infectious Diseases (including Epidemiology)

### a. Isolation and Characterization of Clinical Microbes

#### ODP-087

##### A family case of CA-MRSA infection with USA300 clone

○Mariko Sugawara Mikami<sup>1</sup>, Hiroshi Kaneko<sup>2</sup>, Hidemasa Nakaminami<sup>2</sup> (<sup>1</sup>West Yokohama Sugawara Dermatology Clinic, <sup>2</sup>Dept. Microbiology, Sch. Pharmacy, Tokyo Univ. of Pharmacy and Life Sciences)

#### ODP-088

##### Whole-genome sequencing of EHEC OX18 from a fatal HUS case and other EHEC OX18 isolates

○Ken-ichi Lee<sup>1</sup>, Atushi Iguchi<sup>2</sup>, Kazuhiro Uda<sup>3</sup>, Soushi Matsumura<sup>3</sup>, Isao Miyairi<sup>3</sup>, Kenji Ishikura<sup>3</sup>, Makoto Ohnishi<sup>1</sup>, Sunao Iyoda<sup>1</sup>, EHEC Working Group in Japan<sup>4</sup> (<sup>1</sup>Dept. Bacteriol. 1, Natl. Inst. Infect. Dis., <sup>2</sup>Dept. Agriculture, Univ. Miyazaki, <sup>3</sup>National Center for Child Health and Development, <sup>4</sup>Local Public Health Institutes)

#### ODP-089

##### *Staphylococcus aureus* silence accessory gene regulator to be persistent and competent in hospital

○Yuriko Yamazaki<sup>1</sup>, Mari Tanaka<sup>2</sup>, Yoko Kusuya<sup>3</sup>, Reika Aoyama<sup>2</sup>, Yoshiteru Osone<sup>4</sup>, Hiroki Takahashi<sup>3</sup>, Yuumi Nakamura<sup>2</sup>, Akiko Takaya<sup>5</sup> (<sup>1</sup>Dept. Dermatology, Chiba Univ. Grad. Sch. Medicine, <sup>2</sup>Dept. Dermatology, Osaka Univ. Grad. Sch. Medicine, <sup>3</sup>Medical Mycology Research Center, Chiba Univ., <sup>4</sup>Dept. Pediatrics, Chiba Univ. Grad. Sch. Medicine, Chiba, <sup>5</sup>Dept. Natural Products Chemistry, Grad. Sch. Pharmaceutical Sciences)

#### ODP-090/WS9-7

##### Molecular epidemiology of enterohemorrhagic *Escherichia coli* from asymptomatic carriers

Rina Takahashi<sup>1</sup>, Yutaka Uzawa<sup>1</sup>, Shigekazu Iguchi<sup>1</sup>, Koichi Uno<sup>2</sup>, Akio Noguchi<sup>2</sup>, Hiroshi Kaneko<sup>2</sup>, Toshio Sato<sup>2</sup>, ○Ken Kikuchi<sup>1</sup> (<sup>1</sup>Dept. Infectious Diseases, Tokyo Women's Medical Univ., <sup>2</sup>Japan Biosciences Co., Ltd.)

#### ODP-091

##### The characteristics in drug resistance and biofilm production of clinically isolated MRSA

○Nanako Masuda<sup>1</sup>, Narumi Wakasa<sup>1</sup>, Yuta Miyake<sup>1</sup>, Yoichi Yamada<sup>1</sup>, Noriko Okabe<sup>1</sup>, Yoriyuki Taira<sup>2</sup>, Tomoko Wada<sup>2</sup>, Tetsuhiro Sugiyama<sup>2</sup>, Sumiko Shiota<sup>1</sup> (<sup>1</sup>Dept. Molecular Biology, Sch. Pharm., Shujitsu Univ., <sup>2</sup>Dept. Pharm., Tsuyama Chuo Hospital)

## 5 Pathogens and Infectious Diseases (including Epidemiology)

### b. Methods in Detection and Identification of Clinical Microbes

#### ODP-092

##### Optimization of synthesis conditions for antimicrobial capsid applicable to bacterial gene detection

○Yutaro Nishikawa<sup>1,2</sup>, Kotaro Kiga<sup>2</sup>, Shinya Watanabe<sup>2</sup>, XinEe Tan<sup>2</sup>, Takako Suzuki<sup>1</sup>, Takayuki Simojo<sup>1</sup>, Longzhu Cui<sup>2</sup> (<sup>1</sup>EIKEN CHEMICAL CO.,LTD, <sup>2</sup>Div. Bacteriology, Dept. Infection and Immunity, Sch. Medicine, Jichi Medical Univ.)

#### ODP-093

##### Evaluation of IgG levels to 12 antigens in a *Mycobacterium tuberculosis*-infected Asian elephant

○Satoshi Ishikawa<sup>1,2</sup>, Erina Inouchi<sup>1</sup>, Satomi Suga<sup>2</sup>, Yasuhiko Mukai<sup>2</sup>, Haruka Kobayashi<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>Dep. Bacteriol., Niigata Univ. Med., <sup>2</sup>Fukuyama Zoo)

#### ODP-094

##### Detection of botulinum neurotoxins in Japanese samples by Endopep-MS assay

○Chie Monma<sup>1</sup>, Satomi Uehara<sup>1</sup>, Chikako Asayama<sup>1</sup>, Wakaba Okada<sup>1</sup>, Jun Suzuki<sup>1</sup>, Kenji Sadamasu<sup>1</sup>, Tomoko Kohda<sup>2</sup>, Masafumi Mukamoto<sup>2</sup>, Suzanne R Kalb<sup>3</sup> (<sup>1</sup>Dept. Microbiol., Tokyo Metropolitan Inst. Pub. Health, <sup>2</sup>Dept. Vet. Sci., Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., <sup>3</sup>CDC)

#### ODP-095

##### Automating bacteriological tests – microscopic agglutination test for leptospirosis as an example

○Ryo Ozuru<sup>1</sup>, Yuji Oyamada<sup>2</sup>, Toshiyuki Masuzawa<sup>3</sup>, Satoshi Miyahara<sup>4</sup>, Yasuhiko Nikaido<sup>4</sup>, Mitsumasa Saito<sup>4</sup>, Sharon Y. A. M. Villanueva<sup>5</sup>, Jun Fujii<sup>1</sup> (<sup>1</sup>Div. Bacteriol., Dept. Microbiol. Immunol., Faculty of Med., Tottori Univ., <sup>2</sup>Dept. EECS, Fac. Eng., Tottori Univ., <sup>3</sup>Lab. Microbiol. Immunol., Fac. Pharm. Sci., Chiba Ins. Sci., <sup>4</sup>Dept. Microbiol., Sch. Med., Univ. of Occupational and Environmental Health, <sup>5</sup>Dept. Med. Microbiol., Col. Pub. Health, Univ. the Philippines Manila)

#### ODP-096

##### Identification of *Tsukamurella inchonensis* isolated from septic pulmonary emboli (SPE) patient

○I Putu Bayu Mayura<sup>1</sup>, Kazuyoshi Gotoh<sup>1</sup>, Takehiko Mima<sup>1</sup>, Yumiko Yamamoto<sup>1</sup>, Kenji Yokota<sup>2</sup>, Osamu Matsushita<sup>1</sup>, Hideharu Hagiya<sup>3</sup> (<sup>1</sup>Dept. Bacteriol., Grad Sch Med, Dent and Pharm Sci., Okayama Univ, <sup>2</sup>Grad. Sch. Health Sci., Okayama Univ., <sup>3</sup>Dept. Gen Med, Grad Sch Med, Dent and Pharm Sci., Okayama Univ)



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**5 Pathogens and Infectious Diseases  
(including Epidemiology)  
c. Prevention of Infection  
(Vaccinization and Other Methods)**

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**ODP-097**

**The anti-*Helicobacter pylori* colonization effect of serum and monoclonal antibody in the mice stomach**

○Subsomwong Phawinee<sup>1,2</sup>, Ryota Otsubo<sup>1,3</sup>, Hitomi Mimuro<sup>1</sup> (1Dept. Infect. Dis., RIMD, Osaka Univ., 2Dept. Microbiol. Immunol., Hirosaki Univ. Grad. Sch. Med., 3Toyama Pref. Inst. Pharm. Res., Toyama Univ.)

**ODP-098/WS9-2**

**Host immune induction via membrane vesicles produced by *Clostridium perfringens***

○Mayu Okuda<sup>1</sup>, Nozomu Obana<sup>2</sup>, Hibiki Okuwaki<sup>1</sup>, Ryoma Nakao<sup>3</sup>, Hidenobu Senpuku<sup>3</sup>, Nobuhiko Nomura<sup>4</sup> (1Grad. Life Environ. Sci., Univ. Tsukuba, 2TMRC, Fac. Medicine, Univ. Tsukuba, 3Dept. Bacteriol. I., NIID., 4Fac. Life Environ. Sci., Univ. Tsukuba)

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**5 Pathogens and Infectious Diseases  
(including Epidemiology)  
d. Epidemiology, and Molecular Epidemiology**

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**ODP-099/WS9-5**

**Investigation of pathogenic mechanism of invasive infection caused by *emm 89 Streptococcus pyogenes***

○Masayuki Ono<sup>1,2</sup>, Masaya Yamaguchi<sup>1</sup>, Yujiro Hirose<sup>1</sup>, Kotaro Higashi<sup>1,3</sup>, Norihiko Takemoto<sup>4</sup>, Tohru Miyoshi-Akiyama<sup>4</sup>, Tomoko Sumitomo<sup>1</sup>, Tadayoshi Ikebe<sup>5</sup>, Shigetada Kawabata<sup>1</sup> (1Dept. Oral Mol. Microbiol., Osaka Univ. Grad. Sch. Dent., 2Dept. Fixed Prothodont., Osaka Univ. Grad. Sch. Dent., 3Dept. Prothodont. Gerodontol. Oral Rehabil., Osaka Univ. Grad. Sch. Dent., 4Pathogenic Microbe Lab., Dept. Infectious Diseases, NCGM, 5Dept. Bacteriol. I, Natl. Inst. Infect. Dis.)

**ODP-100/WS9-8**

**Global Genome Epidemiology Database (gGENEPIID) for pathogenic bacteria**

○Makoto Kuroda, Tsuyoshi Sekizuka, Kentaro Itokawa, Koji Yatsu (Pathogen Genomics Center, NIID)

**ODP-101**

**Molecular epidemiology of *Staphylococcus argenteus* clinical isolates in Hokkaido, Northern Japan**

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

**ODP-102**

**Genetic analysis of the type VII secretion system of *Streptococcus intermedius***

○Toshifumi Tomoyasu, Atsushi Tabata, Hideaki Nagamune (Div. Biosci. & Bioindust., Grad. Sch. Tech., Indust. & Soc. Sci., Tokushima Univ.)

**ODP-103**

**Antimicrobial resistance of *Neisseria gonorrhoeae* isolated in Okinawa**

○Hiroshi Nakao<sup>1</sup>, Akiko Uehara<sup>1</sup>, Toshiaki Nakada<sup>2</sup>, Tominobu Takara<sup>2</sup>, Shu-ichi Nakayama<sup>3</sup>, Ken Shimuta<sup>3</sup>, Makoto Ohnishi<sup>3</sup> (1Lab. Molec. Genetics, Sch. Health Sci., Univ. Ryukyus, 2Lifestyle Related Dis. Med. Ctr., Naha City Med. Assoc., 3Dept. Bacteriol. I, Natl. Inst. Infect. Dis.)

**ODP-104**

**Genetic profiling and pan-genome analysis of pneumococcal strains isolated in Myanmar**

○Masaya Yamaguchi<sup>1</sup>, Hpoo Pwint Myo Win<sup>2</sup>, Masayuki Ono<sup>1</sup>, Kotaro Higashi<sup>1</sup>, Yujiro Hirose<sup>1</sup>, Mya Mya Aye<sup>2</sup>, Moh Moh Htun<sup>2</sup>, Hlaing Myat Thu<sup>2</sup>, Shigetada Kawabata<sup>1</sup> (1Dept. Oral Mol. Microbiol., Osaka Univ. Grad. Sch. Dent., 2Bacteriol. Res. Div., Dept. Med. Res., Min. Health Sports.)

**ODP-105**

**Survey of *Escherichia albertii* in wild birds in Japan**

○Atsushi Hinenoya<sup>1,2,3</sup>, Sharda Prasad Awasthi<sup>1</sup>, Noritomo Yasuda<sup>1</sup>, Keigo Nagano<sup>2</sup>, Jayedul Hassan<sup>1</sup>, Keiji Takehira<sup>1</sup>, Noritoshi Hatanaka<sup>1</sup>, Haruna Inoue<sup>4</sup>, Shinji Yamasaki<sup>1,2,3</sup> (1Dept. Vet. Sci., Grad. Sch. Life Environ. Sci., Osaka Pref. Univ., 2Fac. Vet. Sci., Sch. Life Environ. Sci., Osaka Pref. Univ., 3AHSI, Osaka Pref. Univ., 4Wanpark Kochi Animal Land)

**ODP-106**

**Molecular epidemiological analysis of MRSA in the Kanto region**

○Daiki Kaji<sup>1,2</sup>, Masakazu Sasaki<sup>3</sup>, Yoshihito Otsuka<sup>4</sup>, Ken Kikuchi<sup>5</sup> (1Dept. Clin. Lab., Kimitsu Chuo Hosp., 2Div. Infect. Prevention and Control, Tokyo Healthcare Univ. Postgraduate Sch., 3Dept. Clin. Lab., Toho Univ. Med. Ctr. Omori Hosp., 4Dept. Clin. Lab., Kameda Med. Ctr., 5Dept. Infect. Dis., Tokyo Women's Med. Univ. Hosp.)

**ODP-107**

**Whole genome analysis of *Staphylococcus aureus* ST9 strains isolated in Myanmar**

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

**ODP-108****Local spread of VRE ascribed to the interspecies transmission of a *vanA*-carrying linear plasmid**

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

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**5 Pathogens and Infectious Diseases  
(including Epidemiology)**
**e. Others****ODP-109****Novel method to detect resistant bacteria by observing the morphological change using a tabletop SEM**

○Erino Matsumoto<sup>1</sup>, Akiko Hisada<sup>1</sup>, Ryo Hirano<sup>2</sup>, Yuusuke Oominami<sup>2</sup>, Jacques Bou Khalil<sup>3</sup>, Kyoko Imai<sup>2</sup>, Takashi Irie<sup>2</sup>, Toshihide Agemura<sup>2</sup>, Didier Raoult<sup>3</sup> (<sup>1</sup>R&D Group, Hitachi, Ltd., <sup>2</sup>Hitachi High-Tech Corp., <sup>3</sup>Institut Hospitalo-Universitaire Méditerranée Infection)

**ODP-110/WS9-6****bGWAS reveals putative bacterial factors that affect pathological outcomes of MAC lung disease**

○Hirokazu Yano<sup>1</sup>, Yukiko Nishiuchi<sup>2</sup>, Kentaro Arikawa<sup>3</sup>, Atsushi Ota<sup>4</sup>, Mari Miki<sup>5</sup>, Fumito Maruyama<sup>4</sup>, Hiroshi Kida<sup>5</sup>, Seigo Kitada<sup>5</sup>, Tomotada Iwamoto<sup>3</sup> (<sup>1</sup>Grad. Sch. Life Sciences, Tohoku Univ., <sup>2</sup>Grad Sch. Medicine, Osaka City Univ., <sup>3</sup>Kobe Institute of Health, <sup>4</sup>Center for Holobiome and Built Environment (CHOBE), Hiroshima Univ., <sup>5</sup>National Hospital Organization Osaka Toneyama Medical Center)

**ODP-111****Empirical studies on usability of *Lactobacillus* against biofilm-related urinary tract infections**

○Reiko Kariyama<sup>1,2</sup>, Ritsuko Mitsuhata<sup>1</sup>, Masumi Yamamoto<sup>1</sup>, Takuya Sadahira<sup>1</sup>, Koichiro Wada<sup>1</sup>, Ayano Ishii<sup>1</sup>, Toyohiko Watanabe<sup>1</sup>, Yasutomo Nasu<sup>1</sup> (<sup>1</sup>Dept. Urol., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ., <sup>2</sup>Sch. Food Nutr., Okayama Gakuin Univ.)

**ODP-112****Interfering effect of wound exudates on 222 nm-UVC light protects fibroblast in dermal damaged site**

○Kouji Narita<sup>1,2</sup>, Yukihiro Morimoto<sup>3,4,5</sup>, Hiroyuki Ohashi<sup>4</sup>, Tatsushi Igarashi<sup>4</sup>, Krisana Asano<sup>2,3</sup>, Akio Nakane<sup>3</sup> (<sup>1</sup>Inst. for Animal Exp., Hirosaki Univ. Grad. Sch. of Med., <sup>2</sup>Dept. Microbiol. and Immunol., Hirosaki Univ. Grad. Sch. Med., <sup>3</sup>Dept. Biopolymer and Health Sci., Hirosaki Univ. Grad. Sch. Med., <sup>4</sup>Ushio Inc., <sup>5</sup>Inst. of Scientific and Industrial Res., Osaka Univ.)

**6 Virulence Factors and Biophylaxis****a. Adhesion Factors, and Colonization Factors****ODP-113****Inhibition of the interaction between fibronectin and dermatopontin by *Clostridium perfringens* Fbps**

○Seira Egusa<sup>1</sup>, Nozomu Matsunaga<sup>1</sup>, Nodoka Narukawa<sup>1</sup>, Tsutomu Yamasaki<sup>2</sup>, Ryousuke Akamatsu<sup>1</sup>, Seiichi Katayama<sup>1</sup>, Yasuo Hitsumoto<sup>1</sup> (<sup>1</sup>Dept. Life Science, Fac. Science, Okayama Univ. of Science, <sup>2</sup>Pharmaceutical Department, Shujitsu Univ.)

**ODP-114****Purification of cell wall-anchored proteins of *Streptococcus intermedius***

○Ayu Ichijo<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.)

**ODP-115****Dual host cell-binding characteristics of 5-domain-type CDC with N-terminal extra-domain of *S. mitis***

○Takuya Ikeda<sup>1</sup>, Atsushi Tabata<sup>1,2</sup>, Toshifumi Tomoyasu<sup>1,2</sup>, Ayuko Takao<sup>3</sup>, Hisashi Okuni<sup>4</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>Dept. Oral Bacteriol., Tsurumi Univ., <sup>4</sup>Health Sci. Res. Inst. East Japan Co. Ltd.)

**ODP-116*****Aggregatibacter actinomycetemcomitans* enhances coaggregation by serum-culturing**

○Yuichi Oogai<sup>1</sup>, Ayumi Fujita<sup>2</sup>, Masanobu Nakata<sup>1</sup>, Hitoshi Komatsuzawa<sup>3</sup> (<sup>1</sup>Dept. Oral Microbiol., Grad. Sch. Med. and Dent., Kagoshima Univ., <sup>2</sup>Dept. Periodontol., Grad. Sch. Med. and Dent., Kagoshima Univ., <sup>3</sup>Dept. Bacteriol., Grad. Sch., Biomedical and Health Sch., Hiroshima Univ.)

**ODP-117****Molecular characteristics and the peptidoglycanase activity of *Clostridium perfringens*-derived autolysin, Acp**

○Riyo Aono<sup>1</sup>, Nozomu Matsunaga<sup>1</sup>, Eiji Tamai<sup>2</sup>, Seiichi Katayama<sup>1</sup>, Yasuo Hitsumoto<sup>1</sup> (<sup>1</sup>Dept. Life Sci., Fac. Sci., Okayama Univ. Science, <sup>2</sup>Dept. Infect. Dis., Coll. Pharm., Matsuyama Univ.)

**ODP-118****Characterization of extracellular RNA in *Staphylococcus aureus* biofilm**

○Akio Chiba<sup>1,2</sup>, Amu Baba<sup>1</sup>, Shinya Sugimoto<sup>1,2</sup>, Yuki Kinjo<sup>1,2</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med., Jikei Univ., <sup>2</sup>Center for Biofilm, Jikei Univ.)

#### ODP-119

##### Effect of organic acid from oral bacteria on initial attachment and colonization of *Actinomyces oris*

○Itaru Suzuki<sup>1,2</sup>, Takehiko Shimizu<sup>2</sup>, Hidenobu Senpuku<sup>1</sup>  
(<sup>1</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis., <sup>2</sup>Dept. Pediatric Dent. Nihon Univ. Sch. Dent. at Matsudo)

#### ODP-120

##### Function of the autolysin of *Clostridium perfringens*

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

## 6 Virulence Factors and Biophylaxis

### b. Toxins, Effectors, and Bioactive Substances

#### ODP-121

##### *Clostridium perfringens* $\alpha$ -toxin inhibits myogenic differentiation of C2C12 cells

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

#### ODP-122

##### Role of amino acid residues in the biological activities of *Clostridium perfringens* delta-toxin

○Masahiro Nagahama<sup>1</sup>, Honoka Wada<sup>1</sup>, Soshi Seike<sup>2</sup>, Keiko Kobayashi<sup>1</sup>, Masaya Takehara<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Fac. Pharm. Sci., Tokushima Bunri Univ., <sup>2</sup>Lab. Mol. Microbiol. Sci., Fac. Pharm. Sci., Hiroshima International Univ.)

#### ODP-123

##### Cellular Uptake of *Clostridium botulinum* C2 Toxin Requires Protease Activity

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

#### ODP-124

##### Inhibition of LPS-induced inflammation by bioactive metabolites derived from deep-sea microorganisms

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

#### ODP-125

##### Analysis of IL-33-inducing activity of *Citrobacter koseri* in dendritic cells

○Hideo Kataoka, Taiki Mori, Takeshi Into (Dept. Oral Microbiology, Division of Oral Infection and Health Sciences, Asahi Univ. Sch. Dentistry)

#### ODP-126/WS7-8

##### Effect of O<sub>2</sub> availability on Stx1 and Stx2 productions in enterohemorrhagic *Escherichia coli*

○Takeshi Shimizu<sup>1</sup>, Manami Onuki<sup>1</sup>, Akio Matsumoto<sup>2</sup>, Takeshi Hamahata<sup>3</sup> (<sup>1</sup>Dept. Molecular Infectiology, Grad. Sch. Medicine, Chiba Univ., <sup>2</sup>Dept. Aging Pharmacology, Sch. Medicine, Toho Univ., <sup>3</sup>Section of Bacterial Infection, Research Institute, National Center for Global Health and Medicine)

#### ODP-127/WS7-7

##### Optimization of culture conditions for type III secreted proteins production in *B. pertussis*

○Masataka Goto<sup>1</sup>, Asaomi Kuwae<sup>1</sup>, Tomoko Hanawa<sup>2</sup>, Akio Abe<sup>1</sup> (<sup>1</sup>Lab. Bact. Infect., Grad. Sch. Infect. Cont. Sci., Kitasato Univ., <sup>2</sup>Dep. Infect. Dis., Kyorin Univ. Sch. Med.)

#### ODP-128

##### SubAB induces a novel form of Lipocalin 2, which involves in STEC survival

○Kinnosuke Yahiro<sup>1</sup>, Kohei Ogura<sup>2</sup>, Yoshiyuki Goto<sup>3</sup>, Sunao Iyoda<sup>4</sup>, Makoto Ohnishi<sup>4</sup> (<sup>1</sup>Dept. Molecular Infectiology, Grad. Sch. Medicine, Chiba Univ., <sup>2</sup>Advanced Health Care Science Research Unit, Institute for Frontier Science Initiative, Kanazawa Univ., <sup>3</sup>Div. Molecular Immunology, Medical Mycology Research Center, Chiba Univ., <sup>4</sup>Dept. Bacteriology I, National Institute of Infectious Diseases)

#### ODP-129

##### Involvement of *Streptococcus pyogenes*-released extracellular vesicles in the pathogenicity

○Kazunori Murase<sup>1</sup>, Chihiro Aikawa<sup>1</sup>, Takashi Nozawa<sup>1</sup>, Ayako Nakatake<sup>2</sup>, Taisei Kikuchi<sup>3</sup>, Ichiro Nakagawa<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Grad. Sch. Med., Kyoto Univ., <sup>2</sup>HTLV-1/ATL Res. Ctr., Fac. Med., Univ. Miyazaki., <sup>3</sup>Dept. Infec. Dis., Fac. Med., Univ. Miyazaki)

#### ODP-130

##### An anti-PFO monoclonal antibody cross-reactive with SLO protects against STSS

○Takayuki Matsumura<sup>1</sup>, Ayae Nishiyama<sup>1</sup>, Akira Aina<sup>2</sup>, Tadayoshi Ikebe<sup>3</sup>, Joe Chiba<sup>2</sup>, Manabu Ato<sup>4</sup>, Yoshimasa Takahashi<sup>1</sup> (<sup>1</sup>Dept. Immunol., Natl. Inst. Infect. Dis., <sup>2</sup>Dept. Pathol., Natl. Inst. Infect. Dis., <sup>3</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis., <sup>4</sup>Dept. Mycobacteriol., Lepr. Res. Ctr., Natl. Inst. Infect. Dis.)

#### ODP-131/WS7-5

##### *E. coli*-derived CirA induces the pro-inflammatory factors via extracellular vesicles

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

**ODP-132****Virulence factors in membrane vesicle of *Bordetella pertussis* planktonic and biofilm cultures**

○Tomoko Hanawa<sup>1</sup>, Kazunari Kamachi<sup>2</sup>, Asaomi Kuwae<sup>3</sup>, Akio Abe<sup>3</sup>, Hideo Yonezawa<sup>1</sup>, Takako Osaki<sup>1</sup>, Fuhito Hojo<sup>4</sup>, Shigeru Kamiya<sup>1</sup>, Jiro Mitobe<sup>1</sup> (<sup>1</sup>Dept of Infect. Dis. Sch. Med., Kyorin Univ., <sup>2</sup>Dept. Bac. II Natl Inst. of Infec. Dis., <sup>3</sup>Lab. Bact. Infect., Grad. Sch. Infect. Cont. Sci., Kitasato Univ., <sup>4</sup>Facit., Kyorin Univ. Sch. Med.)

**ODP-133****Identification of a *Bartonella elizabethae*-derived angiogenic factor**

○Natsumi Suzuki<sup>1</sup>, Kayo Kumadaki<sup>1,2</sup>, Yohei Doi<sup>1</sup>, Kentaro Tsukamoto<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Fujita Health Univ. Sch. Med., <sup>2</sup>Fujita Health Univ. Grad. Sch. Med.)

**ODP-134****Shiga toxin receptor, globotriaosylceramide, Gb3 in olfaction**

○Jun Fujii<sup>1</sup>, Kazuya Nomura<sup>2</sup> (<sup>1</sup>Division of Bacteriology Dept. Microbiology and Immunology Fac. Medicine Tottori Univ., <sup>2</sup>Dept. Medical Biochemistry, Kurume Univ. Sch. Medicine)

**ODP-135****Lipid A up-regulates caspase-11 expression via RIPK3 activation**

○Riyoko Tamai, Izumi Mashima, Yusuke Kiyoura (Dept. Oral Med. Sci., Sch. Dent., Ohu Univ.)

**ODP-136****Analysis of the functional domain of BopN, a type III effector produced by *Bordetella***

Saaya Kinoshita, ○Asaomi Kuwae, Akio Abe (Lab. Bact. Infect., Grad. Sch. Infect. Cont. Sci., Kitasato Univ.)

**ODP-137/WS7-6****A molecular mechanism of IL-1 $\beta$  inhibition by mycobacterial effector protein**

○Tomomi Kurane<sup>1</sup>, Giichi Takaesu<sup>1,2</sup>, Kazuko Sawada<sup>2</sup>, Masayuki Umemura<sup>1,2</sup>, Goro Matsuzaki<sup>1,2</sup> (<sup>1</sup>Dept. Host defense, Grad. Sch. Med., Univ. of the Ryukyus, <sup>2</sup>Mol. Microbiol. Group, Tropical Biosphere Research Center, Univ. of the Ryukyus)

**ODP-138****Characterization of the Type 7 Secretion System in *Streptococcus intermedius* pathogenicity**

○Masanori Hashino, Tsuyoshi Sekizuka, Kentaro Itokawa, Makoto Kuroda (Pathogen Genomics Center, NIID)

**ODP-139****Investigation on the cytotoxicity of a cholesterol-dependent cytolysin derived from *Gemella bergeri***

○Haruka Miki<sup>1</sup>, Atsushi Tabata<sup>1,2</sup>, Ken Kikuchi<sup>3</sup>, Kanu Ryu<sup>4</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>Dept. Infect. Dis., Tokyo Women's Med. Univ., <sup>4</sup>Dept. Biol. Sci. & Tech., Tokushima Univ.)

**ODP-140****Investigation of the cellular response in THP-1 against Streptolysin S produced by *S. anginosus***

○Rina Shirai<sup>1</sup>, Atsushi Tabata<sup>1,2</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.)

**ODP-141/WS7-2****Identification of signaling pathway that HA of botulinum toxin complex promotes cell proliferation**

○Sho Amatsu<sup>1,2</sup>, Yukako Fujinaga<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med. Sci., Kanazawa Univ., <sup>2</sup>Dept. Forensic Med. Pathol., Sch. Med. Sci., Kanazawa Univ.)

**ODP-142****Involvement of siderophore activity of *Ralstonia solanacearum* in its virulence**

○Yuki Terazawa<sup>1</sup>, Chika Takemura<sup>1</sup>, Wakana Senuma<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. Agri. & Marine Sci., Kochi Univ., <sup>2</sup>Sch. Life & Environmental Sci., Osaka Pre Univ.)

**ODP-143/WS7-1****Regulatory mechanism of TSST-1 production in clinically isolated *Staphylococcus aureus***

○Yusuke Taki<sup>1,2</sup>, Shinya Watanabe<sup>1</sup>, Yusuke Sato<sup>1</sup>, Fengyu Li<sup>1</sup>, Kanate Thititanapakorn<sup>1</sup>, XinEe Tan<sup>1</sup>, Yoshifumi Aiba<sup>1</sup>, Kotaro Kiga<sup>1</sup>, Teppei Sasahara<sup>1</sup>, Longzhu Cui<sup>1</sup> (<sup>1</sup>Div. Bacteriology, Sch. Med., Jichi Med. Univ., <sup>2</sup>Dept. Gastroenterological Surg. Shizuoka General Hosp.)

**ODP-144*****P. gingivalis* and *F. nucleatum* LPS augment *E. coli* LPS-induced IL-6 production by human monocytes**

○Yuya Sakamoto<sup>1,2</sup>, Sakura Onoue<sup>3</sup>, Kazuyoshi Kawahara<sup>3</sup>, Kenji Matsushita<sup>4</sup>, Hiroyuki Tada<sup>2</sup> (<sup>1</sup>Sch. Dent., Tohoku Univ., <sup>2</sup>Dept. Oral Immunol., Sch. Dent., Tohoku Univ., <sup>3</sup>Dept. Biosci., College Sci. Engineer., Kanto Gakuin Univ., <sup>4</sup>Dept. Oral Dis. Res., NCGG)

**ODP-145****Vaginal *Lactobacillus iners* impacts on barrier functions of the human vaginal mucosa**

○Maho Shimada<sup>1</sup>, Mayuko Kato<sup>1</sup>, Shiho Sato<sup>1</sup>, Miki Ishii<sup>1</sup>, Yuki Kodama<sup>1</sup>, Masahiro Ito<sup>1,2</sup>, Adam J. Ratner<sup>3</sup>, Nobuhiko Okada<sup>1</sup>, Melissa M. Herbst-Kralovetz<sup>2,4</sup> (<sup>1</sup>Dept. Microbiol., Sch. Pha., Kitasato Univ., <sup>2</sup>Dept. Bas. Med. Sci., Col. Med.-Phoenix, Univ. Arizona, <sup>3</sup>Dept. Ped. Microbiol., Sch. Med., New York Univ., <sup>4</sup>Dept. Obs. Gyn., Col. Med.-Phoenix, Univ. Arizona)

**ODP-146*****Aeromonas* serine protease disrupts epithelial junctions and contributes to bacterial translocation**

○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 International Univ., <sup>2</sup>Labo. Med. Microbiol., Dept. Health Pharm., Yokohama Univ. of Pharmacy, <sup>3</sup>Collaborative Research Center of Okayama Univ. for Infect. Diseases in India)

**ODP-147*****Bartonella* species vary in their ability to promote endothelial cell proliferation**

○Kayo Kumadaki<sup>1,2</sup>, Yohei Doi<sup>1</sup>, Kentaro Tsukamoto<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Fujita Health Univ. Sch. Med., <sup>2</sup>Fujita Health Univ. Grad. Sch. Med.)

**ODP-148****Inhibitory effect of nitric oxide on Subtilase cytotoxin**

○Hiroyasu Tsutsuki<sup>1</sup>, Tianli Zhang<sup>1</sup>, Kinnosuke Yahiro<sup>2</sup>, Katsuhiko Ono<sup>1</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. Mol. Infectiol., Grad. Sch. Med., Chiba Univ., <sup>3</sup>Dept. Environ. Med. Mol. Toxicol., Grad. Sch. Med., Tohoku Univ.)

**ODP-149****Analysis of host response against membrane vesicles derived from *Clostridium botulinum***

○Nobuhide Kobayashi, Mayu Kitamura, Kazuki Saito, Masahiro Yutani, Sho Amatsu, Takuhiro Matsumura, Yukako Fujinaga (Dept. Bacteriol., Grad. Sch. Med., Kanazawa Univ.)

**ODP-150****Function analysis of HA in the intestinal toxin absorption using recombinant botulinum toxin complex**

○Chiyono Morimoto, Sho Amatsu, Mayu Kitamura, Takuhiro Matsumura, Yukako Fujinaga (Dept. Bacteriol., Sch. Med. Sci., Kanazawa Univ.)

**ODP-151****Potential pathogenicity of *S. mitis* strain Nm-65 based on the complete genomic information**

○Atsushi Tabata<sup>1</sup>, Hisashi Ohkuni<sup>2</sup>, Toshifumi Tomoyasu<sup>1</sup>, Hideaki Nagamune<sup>1</sup> (<sup>1</sup>Div. Biosci. & Bioindust., Grad. Sch. Tech., Indust. & Social Sci., Tokushima Univ. Grad. Sch., <sup>2</sup>Health Sci. Res. Inst. East Japan)

**ODP-152****Proteolysis of PAI-1 in human endothelial cells by gingipains from *Porphyromonas gingivalis***

○Litng Song<sup>1</sup>, Kenji Matsushita<sup>2</sup>, Hiroyuki Tada<sup>1</sup> (<sup>1</sup>Dept. Oral Immunol., Sch. Dent., Tohoku Univ., <sup>2</sup>Dept. Oral Dis. Res., NCGG)

**ODP-153****Investigating the influence of EPEC infection on the host biogenesis of exosome**

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

**ODP-154****Functional analysis of mycobacterial protein****PE\_PGRS30**

○Kazunori Matsumura<sup>1</sup>, Satoshi Takaki<sup>1</sup>, Teruo Kirikae<sup>2</sup> (<sup>1</sup>Dept. Immune Reg., Inst., NCGM, <sup>2</sup>Dept. Microbiol., Sch. Med., Juntendo Univ.)

**ODP-155****[Withdrawn]****6 Virulence Factors and Biophylaxis****c. Mechanisms of Intracellular Invasion and Parasitism****ODP-156/WS9-3****Non-hematogenous dissemination of *Streptococcus pneumoniae* from nasopharynx to brain tissue**

○Yuki Takahara<sup>1,2</sup>, Tomoko Sumitomo<sup>1</sup>, Masamitsu Kono<sup>3</sup>, Masaya Yamaguchi<sup>1</sup>, Masanobu Nakata<sup>4</sup>, Muneki Hotomi<sup>3</sup>, Shigetada Kawabata<sup>1</sup> (<sup>1</sup>Dept. Oral Mol. Microbiol., Osaka Univ. Grad. Sch. Dent., <sup>2</sup>Dept. Fixed Prothodont., Osaka Univ. Grad. Sch. Dent., <sup>3</sup>Dept. Otorhinolaryngology-Head and Neck Surgery, Wakayama Medical Univ., <sup>4</sup>Dept. Oral. Microbiol., Grad. Sch. Med. and Dent., Kagoshima Univ.)

**ODP-157*****Campylobacter jejuni* recruit LC3 to bacterial invasion site on host cells through Rac1 signaling**

○Shiho Fukushima, Takaaki Shimohata, Takashi Uebanso, Kazuaki Mawatari, Akira Takahashi (Dept. Prevent. Environ. Nutr., Inst. Biomed. Sci., Tokushima Univ. Grad. Sch.)

**ODP-158****Latent infection of *Helicobacter cinaedi* in bone marrow sustained by super sulfide**

○Tetsuro Matsunaga<sup>1</sup>, Masaaki Yoshida<sup>1</sup>, Akira Nishimura<sup>2</sup>, Masanobu Morita<sup>1</sup>, Tomoaki Ida<sup>1</sup>, Hiroyasu Tsutsuki<sup>3</sup>, Tomohiro Sawa<sup>3</sup>, Hozumi Motohashi<sup>4</sup>, Yoshiaki Kawamura<sup>5</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.)

**6 Virulence Factors and Biophylaxis**  
**d. Mechanisms of Immune Evasion and Proliferation in Host**

**ODP-159****Increased vaginal mucosal indole and IFN- $\gamma$  levels critically control genital chlamydial infection**

○Ryoya Tsujikawa<sup>1</sup>, Yuki Funahashi<sup>1</sup>, Torahiko Okubo<sup>1</sup>, Jeewan Thapa<sup>2</sup>, Hiroyuki Yamaguchi<sup>1</sup> (<sup>1</sup>Fac. Health Science, Hokkaido Univ., <sup>2</sup>Res. Cent. Zoonosis Control Hokkaido Univ.)

**ODP-160****Osteopontin and exosome in THP-1 macrophage infected with *Mycobacterium bovis* BCG**

○Takashi Matsuba<sup>1</sup>, Gaowa Bai<sup>2</sup>, Toshiro Niki<sup>3</sup>, Toshio Hattori<sup>2</sup> (<sup>1</sup>Div. Bacteriol., Fac. Med., Tottori Univ., <sup>2</sup>Dept. Health Sci. & Soc. Welfare, Kibi Int. Univ., <sup>3</sup>Dept. Immunol., Fac. Med. Kagawa Univ.)

**6 Virulence Factors and Biophylaxis**  
**e. Basic Studies using Infection Model**

**ODP-161/WS9-4****Monitoring mycobacterial infection in vivo by 3D imaging CUBIC**

○Mariko Hakamata<sup>1,2</sup>, Erina Inouchi<sup>1</sup>, Akira Yokoyama<sup>1,3</sup>, Yuriko Ozeki<sup>1</sup>, Akihito Nishiyama<sup>1</sup>, Yoshitaka Tateishi<sup>1</sup>, Riuku Ohashi<sup>4</sup>, Toshiaki Kikuchi<sup>2</sup>, Kazuki Tainaka<sup>5</sup>, Sohkiichi Matsumoto<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med., Niigata Univ., <sup>2</sup>Dept. Respiratory Medicine and Infectious Disease., Sch. Med., Niigata Univ., <sup>3</sup>Dept. Respiratory Medicine, Sch. Med., The Univ. of Tokyo, <sup>4</sup>Histopathology Core Facility, Sch. Med., Niigata Univ., <sup>5</sup>Dept. System Pathology for Neurological Disorders, Brain Research Institute, Niigata Univ.)

**ODP-162****Hyaluronate Lyase Involved in Nutrient Acquisition and Pathogenicity of *Streptococcus dysgalactiae***

○An Van Nguyen<sup>1</sup>, Kohei Ogura<sup>2</sup>, Miki Matsue<sup>3</sup>, Norihiko Takemoto<sup>4</sup>, Wataru Hashimoto<sup>5</sup>, Shigefumi Okamoto<sup>3</sup>, Hiroshi Ichimura<sup>1</sup> (<sup>1</sup>Dept. Viral Infect., Grad. Sch. Med. Sci., Kanazawa Univ., <sup>2</sup>Inst. Front. Sci. Init., Kanazawa Univ., <sup>3</sup>Dept. Clin. Lab. Sci., Inst. Med. Pharm. Health Sci., Kanazawa Univ., <sup>4</sup>Pathog. Microb. Lab., Res. Inst., NCGM, <sup>5</sup>Lab. Bas. Appl. Mole. Biotech., Div Food Sci. Biotech., Grad. Agric., Kyoto Univ.)

**ODP-163****Stx2 disturbs circadian rhythm in the proximal tubular epithelial cells *in vitro* and *in vivo***

○Fumiko Obata, Ryo Ozuru, Takahiro Tsuji, Takashi Matsuba, Jun Fujii (Div. Bacteriol., Dept. Infect. immun., Fac. Med., Tottori Univ.)

**ODP-164****Effectiveness of *Lonicera caerulea* against pneumococcal infection in aging mouse**

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

**ODP-165****The effect of hypoxia on *Helicobacter pylori* induced inflammasome activation**

○Adiza Abass, Toshihiko Suzuki (Dept. Bact. Pathol. Infect. Resp. Sch. Med. Dent., TMDU)

**ODP-166****The relationship between leptospirosis and chronic renal dysfunction in a hamster model**

○Tsukasa Maruoka<sup>1,2</sup>, Satoshi Miyahara<sup>1</sup>, Kazumasa Fukuda<sup>1</sup>, Midori Ogawa<sup>1</sup>, Mitsumasa Saito<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Med., UOEH., <sup>2</sup>Dept. Anesthesiology., Sch. Med., UOEH.)

**ODP-167****Effect of *Helicobacter pylori* infection on intestinal microbiota of MPS mice**

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

**ODP-168****Role of secretory IgA antibodies in suppression of dental caries caused by *Streptococcus sobrinus***

○Tomomi Hashizume-Takizawa, Masanori Saito, Noriko Shinozaki-Kuwahara, Ryoki Kobayashi, Tomoko Kurita-Ochiai (Dept. Microbiol. Immunol., Sch. Dent. at Matsudo, Nihon Univ.)

**ODP-169****C-type lectin Mincle is involved in protection against *Mycobacterium leprae* infection in mice**

○Tomomi Kawakita<sup>1,3</sup>, Yumi Maeda<sup>1</sup>, Sho Yamasaki<sup>2</sup>, Akihide Ryo<sup>3</sup>, Manabu Ato<sup>1</sup> (<sup>1</sup>Dept. Mycobacteriology, Leprosy Research Center, National Institute of Infectious Diseases, <sup>2</sup>Dept. Molecular Immunology, Research Institute for Microbial Diseases, Osaka Univ., <sup>3</sup>Dept. Microbiology and Molecular Biodefense Research, Yokohama City Univ. Grad. Sch. Medicine)

**ODP-170****Establishment of a new Streptococcal toxic shock syndrome model using immunocompromised mice**

○Takahiro Tsuji<sup>1</sup>, Fumiko Obata<sup>1</sup>, Ryo Ozuru<sup>1</sup>, Satoshi Miyahara<sup>2</sup>, Mitsumasa Saito<sup>2</sup>, Jun Fujii<sup>1</sup> (<sup>1</sup>Div. Bacteriol., Dept. Microbiol. Immunol., Faculty of Med., Tottori Univ., <sup>2</sup>Dept. Microbiol., Sch. Med., Univ. of Occupational and Environmental Health)

**ODP-171****Effect of *Fusobacterium nucleatum* on COPD model mice**

○Noriaki Kamio<sup>1</sup>, Ryuta Suzuki<sup>1,2</sup>, Kenichi Imai<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Sch. Dent., Nihon Univ., <sup>2</sup>Dept. Oral Surg., Sch. Dent., Nihon Univ.)

**ODP-172****Molecular mechanism underlying resistance to *S.aureus* conferred by *B. subtilis* (natto) in *C. elegans***

○Rina Katayama<sup>1</sup>, Yumi Matsumoto<sup>1</sup>, Yukina Higashi<sup>1</sup>, Honoka Sasao<sup>2</sup>, Yoshihiko Tanimoto<sup>1</sup>, Simo Sun<sup>1</sup>, Yoshikazu Nishikawa<sup>1</sup>, Eriko Nakadai (Kage)<sup>1</sup> (<sup>1</sup>Grad. Sch. Human Life Science, Osaka City Univ., <sup>2</sup>Dept. Human Life Science, Osaka City Univ.)

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**6 Virulence Factors and Biophylaxis**
**f. Immune Mechanism, Development of Vaccines**


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**ODP-173*****Salmonella* FimH is involved in the expression of pro-inflammatory cytokines in TLR4-dependent manner**

○Kei-ichi Uchiya, Masahiro Ando (Dept. Microbiol., Fac. Pharm., Meijo Univ.)

**ODP-174****Synthetic lipid A of *Alcaligenes* augments nasal vaccine efficacy to prevent pneumococcal infection**

○Ken Yoshii<sup>1,2</sup>, Koji Hosomi<sup>1</sup>, Atsushi Shimoyama<sup>3</sup>, Yunru Wang<sup>1,4</sup>, Haruki Yamaura<sup>3</sup>, Takahiro Nagatake<sup>1</sup>, Hidehiko Suzuki<sup>1</sup>, Huangwenxian Lan<sup>1,4</sup>, Hiroshi Kiyono<sup>5,6,7,8</sup>, Koichi Fukase<sup>3</sup>, Jun Kunisawa<sup>1,2,4,5,9,10,11,12</sup> (<sup>1</sup>The Laboratory of Vaccine Materials., NIBIOHN., <sup>2</sup>Grad. Sch. Med., Osaka Univ., <sup>3</sup>Grad Sch. Sci., Osaka Univ., <sup>4</sup>Grad Sch. Pharmaceutical Sci., Osaka Univ., <sup>5</sup>International Research and Development Center for Mucosal Vaccines, IMSUT., <sup>6</sup>Dept. Mucosal Immunol., IMSUT Distinguished Professor Unit., IMSUT., <sup>7</sup>Dept. Gastroenterology., Sch. Med and CU-UCSD Center for Mucosal Immunology, Allergy and Vaccine., Univ. California., <sup>8</sup>Grad Sch. Med., Chiba Univ., <sup>9</sup>Grad Sch. Dent., Osaka Univ., <sup>10</sup>Grad Sch. Med., Kobe Univ., <sup>11</sup>Grad Sch. Biomedical and Health Sci., Hiroshima Univ., <sup>12</sup>Research Organization for Nano & Life Innovation., Waseda Univ.)

**ODP-175/WS9-1*****In vitro* Bacterial Evaluation Model using Human iPS Cell-derived Small Intestinal Epithelial Cells**

○Nao Yamazaki<sup>1</sup>, Shinji Mima<sup>1</sup>, Yuki Imakura<sup>1</sup>, Takahiro Iwao<sup>2</sup>, Tamihide Matsunaga<sup>2</sup>, Shinichi Watanabe<sup>1</sup>, Kozo Nagata<sup>1</sup>, Masahiko Taniguchi<sup>1</sup> (<sup>1</sup>Bio Science & Engineering Laboratory, FUJIFILM Corporation, <sup>2</sup>Dept. Clinical Pharmacy, Grad. Sch. Pharmaceutical Sciences, Nagoya City Univ.)

**ODP-176****Difference of anti-oxidative stress responses between BCG Tokyo 172 type I and type II**

Keiichi Taniguchi<sup>1</sup>, Daisuke Hayashi<sup>2</sup>, Naomi Yasuda<sup>3</sup>, Mao Nakayama<sup>3</sup>, Saotomo Itoh<sup>1</sup>, Saburo Yamamoto<sup>2</sup>, Naoya Ohara<sup>4</sup>, Shigeaki Hida<sup>1</sup>, Kikuo Onozaki<sup>1</sup>, ○Takemasa Takii<sup>1,3</sup> (<sup>1</sup>Dept. Molecular Health Sciences, Grad. Sch. Pharmaceutical Sciences, Nagoya City Univ., <sup>2</sup>Japan BCG Laboratory, <sup>3</sup>Dept. Mycobacterium Reference and Research, The Research Institute of Tuberculosis, Japan Anti-Tuberculosis Association, <sup>4</sup>Dept. Oral Microbiology, Grad. Sch. Medicine, Dentistry, and Pharmaceutical Sciences, Okayama Univ.)

**ODP-177****Novel vaccine with SseJ, Salmonella effector protein, against salmonellosis**

○Momoko Nakayama, Swarmistha Devi Aribam, Yohsuke Ogawa, Yoshihiro Shimoji, Masahiro Eguchi (NIAH, NARO)

**ODP-178****Regulation of *Clostridium ramosum*-induced disorders by antigen-specific mucosal immunity**

○Koichiro Fujii<sup>1</sup>, Kosuke Fujimoto<sup>1,2,3</sup>, Satoshi Uematsu<sup>1,2,3</sup> (<sup>1</sup>Dept. Immunology and Genomics, Osaka City Univ. Grad. Sch. Medicine, <sup>2</sup>Div. Metagenome Medicine, Human Genome Center, The Institute of Medical Science, The Univ. of Tokyo, <sup>3</sup>Div. Innate Immune Regulation, International Research and Development Center for Mucosal Vaccine, The Institute of Medical Science, The Univ. of Tokyo)

**ODP-179****NADPH oxidases and NO synthases activate super sulfur species conferring anti-microbial host defense**

○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>, Hideki Sumimoto<sup>3</sup>, Hozumi Motohashi<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. Biochem., Kyushu Univ., Grad. Sch. Med. Sci., <sup>4</sup>Dept. Gene Exp. Reg., IDAC, Tohoku Univ.)

**ODP-180****Perturbation of host protective immunity by mycobacterial carbohydrates**

○Shota Torigoe<sup>1</sup>, Akira Kawano<sup>2</sup>, Satoru Mizuno<sup>2</sup>, Kazuhiro Matsuo<sup>2</sup>, Sho Yamasaki<sup>1,3,4,5</sup> (<sup>1</sup>Dept. Mol. Immunol., RIMD, Osaka Univ., <sup>2</sup>Japan BCG Laboratory, <sup>3</sup>Lab. Mol. Immunol., IFReC, Osaka Univ., <sup>4</sup>Div. Mol. Immunol., MIB, Kyushu Univ., <sup>5</sup>Div. Mol. Immunol. MMRC, Chiba Univ.)

**ODP-181****Vaccine development against tuberculosis by using BCG-derived membrane vesicles**

○Takehiro Yamaguchi<sup>1</sup>, Ryoma Nakao<sup>2</sup>, Shuhei Tomita<sup>1</sup> (<sup>1</sup>Dept. Pharmacol., Sch. Med., Osaka City Univ., <sup>2</sup>Dept. Bacteriol. I, Natl. Inst. Infect. Dis.)

**ODP-182****Host defense mechanism by nitric oxide and super sulfide in *Salmonella* infection**

○Masaaki Yoshida<sup>1</sup>, Tetsuro Matsunaga<sup>1</sup>, Tsuyoshi Takata<sup>1</sup>, Tomoaki Ida<sup>1</sup>, Masato Tsutsui<sup>2</sup>, Masanobu Morita<sup>1</sup>, Tomohiro Sawa<sup>3</sup>, Takaaki Akaike<sup>1</sup> (<sup>1</sup>Dept. Environ. Med. Mol. Toxicol., Tohoku Univ. Grad. Sch. Med., <sup>2</sup>Dept. Pharmacol., Grad. Sch. Med., Univ. the Ryukyus, <sup>3</sup>Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ.)

**ODP-183****Gasdermin D mediates the maturation and release of IL-1 $\alpha$  downstream of inflammasomes**

○Kohsuke Tsuchiya, Takashi Suda (Div. Immunol., Cancer Res. Inst., Kanazawa Univ.)

**ODP-184****Elucidation of mechanism of human monoclonal antibodies neutralizing botulinum neurotoxin serotype B**

○Mayu Kitamura, Takuhiro Matsumura, Sho Amatsu, Masahiro Yutani, Chiyono Morimoto, Yukako Fujinaga (Dept. Microbiol., Sch. Med. Sci., Kanazawa Univ.)

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## 6 Virulence Factors and Biophylaxis g. Others

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**ODP-185/WS7-4****LL-37 ameliorates mouse sepsis by releasing antimicrobial extracellular vesicles**

○Yumi Kumagai<sup>1</sup>, Soichiro Kakuta<sup>2</sup>, Kyoko Kuwahara<sup>3</sup>, Isao Nagaoka<sup>1,4</sup> (<sup>1</sup>Dept. Host Defense Biochem. Res., Sch. Med., Juntendo Univ., <sup>2</sup>Lab. Morphol. Image Analysis, Sch. Med., Juntendo Univ., <sup>3</sup>Dept. Microbiol., Sch. Med., Juntendo Univ., <sup>4</sup>Faculty Health Sci., Juntendo Univ.)

**ODP-186*****P. aeruginosa* *subB* and pili-associated genes related to bacterial translocation and virulence in fly**

○Chigusa Suezawa, Masashi Yasuda, Satoshi Yamane, Syouya Nagata, Chinami Kunikata, Jun Okuda (Div. Microbiol., Dept. Med. Tech., Kagawa Pref. Univ. of Health Sci.)

**ODP-187****The mechanism of LL-37-induced autophagy and cell death in endothelial cells**

○Kaori Suzuki<sup>1</sup>, Isao Nagaoka<sup>1,2</sup> (<sup>1</sup>Dept. Host Defense & Biochem Res, Juntendo Univ. Sch. Med, <sup>2</sup>Fac. Health Science, Juntendo Univ.)

**ODP-188****VuuB and IutB reduce ferric-vulnibactin in *Vibrio vulnificus* M2799**

○Katsushiro Miyamoto<sup>1</sup>, Naoko Okai<sup>1</sup>, Koji Tomoo<sup>2</sup>, Takahiro Tsuchiya<sup>1</sup>, Jun Komano<sup>1</sup>, Tomotaka Tanabe<sup>3</sup>, Tatsuya Funahashi<sup>3</sup>, Hiroshi Tsijibo<sup>1</sup> (<sup>1</sup>Dept. Microbiol. Infect. Control, Osaka Univ. Pharm. Sci., <sup>2</sup>Dept. Phys. Chem., Osaka Univ. Pharm. Sci., <sup>3</sup>Dept. Hyg. Chem., Col. Pharm. Sci., Matsuyama Univ.)

**ODP-189****Analysis of exacerbating factor of ulcerative colitis**

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

**ODP-190****Autophagy-related gene 9 regulates intracellular invasion of Group A *Streptococcus***

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

**ODP-191/WS7-3****Guanylate binding protein-1 regulates xenophagy through TBK1 activation**

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

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## 7 Antimicrobials and Drug Resistance a. Antimicrobial Agents

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**ODP-192/WS10-8****Adduct formation of delamanid with NAD in mycobacteria**

○Akihito Nishiyama<sup>1</sup>, Mikayo Hayashi<sup>2</sup>, Ryuki Kitamoto<sup>2</sup>, Yoshitaka Tateishi<sup>1</sup>, Mayuko Osada-Oka<sup>3</sup>, Yukiko Nishiuchi<sup>4</sup>, Xiuhao Chen<sup>2</sup>, Kentaro Kaneko<sup>5</sup>, Makoto Matsumoto<sup>2</sup>, Sohkiichi Matsumoto<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Sch. Med., Niigata Univ., <sup>2</sup>Pharm. Bus. Div., Otsuka Pharmaceutical Co., Ltd., <sup>3</sup>Div. Applied Life Sci., Grad. Sch. Life Environ. Sci., Kyoto Prefect. Univ., <sup>4</sup>Toneyama Ins. for Tuberculosis Res., Med. Sch., Osaka City Univ., <sup>5</sup>Grad. Sch. Sci. Technol., Niigata Univ.)

**ODP-193****Growth inhibition of *Campylobacter* spp. by *Bacillus natto***

○Ryosuke Kadoya, Miyuu Iketani, Riho Kaneda (Dept. Food and Nutrition, Sch. of Life Stud., Sugiyama Jogakuen Univ.)

**ODP-194****Biological effects of *Monascus* spp. fermented products on diarrheagenic bacteria and mammalian cells**

○Jun Xu<sup>1</sup>, Rino Arakaki<sup>2</sup>, Shinjiro Tachibana<sup>2</sup>, Tetsu Yamashiro<sup>1</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med., Univ. Ryukyus, <sup>2</sup>Dept. Biosci. Biotechnol. Faculty Agric., Univ. Ryukyus)



**ODP-195/WS10-7****Anti-inflammatory effect of *Staphylococcus aureus* phage  $\Phi$ MR003 on wound infection**

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

**ODP-196****Effect of phloridzin on biofilm formation of *Candida albicans***

○Tetsuya Sakuta<sup>1,2</sup>, Yuichi Oogai<sup>1</sup>, Masanobu Nakata<sup>1</sup> (1Dept. Oral Microbiol., Grad. Sch. Med. and Dent., Kagoshima Univ., 2Dept. General Dent. Practices, Kagoshima Univ. Med. and Dent. Hosp.)

**ODP-197****Red ginseng saponins suppress the release of hemolysin from *Staphylococcus aureus***

○Yuina Iwasaki<sup>1</sup>, Mayuko Oka<sup>1</sup>, Keiichi Samukawa<sup>2</sup>, Risa Imamiya<sup>1</sup>, Yukiko Minamiyama<sup>1</sup>, Hiroshi Iwao<sup>3</sup> (1Food Hyg. Env. Health., Grad. Sch. Life Env. Sci., Kyoto Pref. Univ., 2Dept. Pharmacol., Osaka City Univ. Med. Sch., 3Dept. Educ., Shitennoji Univ.)

**ODP-198****Isolation/characterization of oral antibiotic-resistant Gram-negative bacteria in nursing homes**

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

**ODP-199****Fennel extract induce membrane vesicle production and rapid bactericidal effect against *P.gingivalis***

○Nanami Yoshino<sup>1,3</sup>, Tsuyoshi Ikeda<sup>2</sup>, Ryoma Nakao<sup>3</sup> (1Central Res. Inst., S&B FOODS Inc., 2Pharm. Sci., Sojo Univ., 3Dept. Bacteriol. 1, Natl. Inst. Infect. Dis.)

**ODP-200****The therapeutic effect of hinokitil on the murine model of pneumococcal pneumonia**

○Toshihito Isono<sup>1</sup>, Hisanori Domon<sup>1,2</sup>, Tomoki Maekawa<sup>1,2</sup>, Hikaru Tamura<sup>1,2</sup>, Takumi Hiyoshi<sup>1</sup>, Katsunori Yanagihara<sup>3</sup>, Eiji Kunitomo<sup>4</sup>, Yutaka Terao<sup>1,2</sup> (1Div. Microbiol. Infect. Dis., Niigata Univ. Grad. Sch. Med. & Dent. Sci., 2Cent. for Adv. Oral Sci., Niigata Univ. Grad. Sch. Med. & Dent. Sci., 3Dept. Laboratory Medicine, Nagasaki Univ. Grad. Sch. Biomed., 4Central R&D Lab., Kobayashi Pharma.)

**ODP-201****[Withdrawn]****ODP-202****Analysis of photoinactivation mechanism of bacteria by porphyrins using electrochemical sensors**

○Hisato Kato, Kazufumi Masuda, Takashi Katsu (Sch. Pharmacy, Shujitsu Univ.)

**ODP-203****Enhanced bacterial killing by polysulfide donor in macrophages and neutrophils**

○Tianli Zhang<sup>1</sup>, Azizur Rahman<sup>1</sup>, Hiroyasu Tsutsuki<sup>1</sup>, Katsuhiko Ono<sup>1</sup>, Kei Miyano<sup>2</sup>, Akira Yamauchi<sup>2</sup>, Takaaki Akaike<sup>3</sup>, Tomohiro Sawa<sup>1</sup> (1Dept. Microbiol., Sch. Med Sci., Kumamoto Univ., 2Dept. Biochem., Kawasaki Med Sch., 3Dept. Environ Med and Mol Toxi., Tohoku Univ., Sch. Med)

**7 Antimicrobials and Drug Resistance****b. Drug Resistance****ODP-204****Metagenomic and resistome analysis of an effluent of urban sewage treatment plants in Tokyo**

○Tsuyoshi Sekizuka, Kentaro Itokawa, Koji Yatsu, Masanori Hashino, Makoto Kuroda (Pathogen Genomics Center, NIID)

**ODP-205****Prevalence of virulence genes and antimicrobial resistance of *Cronobacter* spp. in Japan**

○Yumiko Okada<sup>1</sup>, Tatsuya Nakayama<sup>1</sup>, Shogo Otake<sup>2</sup>, Masashi Kasai<sup>2</sup>, Hodaka Suzuki<sup>3</sup>, Hirokazu Ogihara<sup>4</sup>, Stephen James Forsythe<sup>5</sup> (1Nat. Inst. Health Sci., 2Hyogo Pref. Kobe Children Hosp., 3Col. Agri., Ibaraki Univ., 4Col. Bioresource Sci., Nihon Univ., 5foodmicrobe.com)

**ODP-206/WS10-4****Functional analysis of intrinsic drug resistance genes in *M. tuberculosis* using CRISPR interference**

○Nao Hirata, Kayo Kumadaki, Motoko Shinohara, Yui Kitagawa, Yusuke Minato (Dept. Microbiol., Med., Fujita Health Univ.)

**ODP-207/WS10-1****Heterogeneity of intracellular ATP abundance in *Salmonella* Typhimurium induces diverse persisters**

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

**ODP-208****Evaluation of genotype-based antimicrobial resistance prediction in *Serratia marcescens***

○Debora Satie Nagano, Tomoyuki Ono, Yasuhiro Gotoh, Keiji Nakamura, Itsuki Taniguchi, Tetsuya Hayashi (Dept. Bacteriol., Fac. Med. Sci., Kyushu Univ.)

**ODP-209/WS10-5****Qualitative and quantitative assessments of ESBL-producing *Escherichia coli* in retail chicken meats**

○Shiori Yamamoto, Tatsuya Nakayama, Rika Machida, Hiroshi Asakura (Div. Biomed. Food Res., Natl. Inst. Health Sci.)

**ODP-210****Identification of  $\beta$ -lactam ring opened carbothioic S-acids mediated by cysteine hydropersulfide**

○Katsuhiko Ono<sup>1</sup>, Hiroyasu Tsutsuki<sup>1</sup>, Tianli Zhang<sup>1</sup>, Takaaki Akaike<sup>2</sup>, Tomohiro Sawa<sup>1</sup> (<sup>1</sup>Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., <sup>2</sup>Dept. Envir. Med. Mol. Toxicol., Tohoku Univ., Grad. Sch. Med.)

**ODP-211****Enhanced Carbapenem Resistance through Multimerization of Plasmids Carrying Carbapenemase Genes**

○Ryuichiro Abe<sup>1</sup>, Yukihiro Akeda<sup>1,2</sup>, Yo Sugawara<sup>1</sup>, Ryuji Kawahara<sup>3</sup>, Kazunori Tomono<sup>2</sup>, Shigeyuki Hamada<sup>1</sup> (<sup>1</sup>RIMD, Osaka Univ., <sup>2</sup>Dept. Infect. Cont. Prevent., Med. Hosp., Osaka Univ., <sup>3</sup>Div. Microbiol., Osaka Inst. Public Health)

**ODP-212****Identification of antibiotic tolerance related genes to AIA-1 in *Pseudomonas aeruginosa***

○Muhammad Reza Pahlevi, Keiji Murakami, Rina Murata, Hideki Fujii (Dept. Oral Microbiol., Insti. Biomed. Sciences, Tokushima Univ. Grad. Sch.)

**ODP-213****The killing effect of biapenem to carbapenemase-producing *Enterobacteriaceae***

○Makoto Miyoshi<sup>1</sup>, I Putu Bayu Mayura<sup>1</sup>, Kazuyoshi Gotoh<sup>1</sup>, Takehiko Mima<sup>1</sup>, Yumiko Yamamoto<sup>1</sup>, Kenji Yokota<sup>2</sup>, Osamu Matsushita<sup>1</sup>, Hideharu Hagiya<sup>3</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ., <sup>2</sup>Grad. Sch. Health Sci., Okayama Univ., <sup>3</sup>Dept. Gen. Med., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ.)

**ODP-214/WS10-6****Exploration of host receptors in PB1-like phages infection towards *Pseudomonas aeruginosa***

○Keisuke Nakamura<sup>1</sup>, Jumpei Fujiki<sup>1</sup>, Takaaki Furusawa<sup>1</sup>, Montgomery Munby<sup>1</sup>, Tomohiro Nakamura<sup>1</sup>, Masaru Usui<sup>2</sup>, Satoshi Gondaira<sup>3</sup>, Hidetoshi Higuchi<sup>3</sup>, Yutaka Tamura<sup>2</sup>, Hidetomo Iwano<sup>1</sup> (<sup>1</sup>Lab. Vet. Biochem., Dept. Vet. Med., Rakuno Gakuen Univ., <sup>2</sup>Lab. Food. Microbiol., Dept. Vet. Med., Rakuno Gakuen Univ., <sup>3</sup>Lab. Vet. Hygiene., Dept. Vet. Med., Rakuno Gakuen Univ.)

**7 Antimicrobials and Drug Resistance****c. Others****ODP-215****Development of the photo-antibacterial targeting therapy**

○Kazuhide Sato<sup>1,2,3,4</sup>, Hirotohi Yasui<sup>3</sup>, Kazuomi Takahashi<sup>3</sup>, Shunichi Taki<sup>3</sup>, Tomohiro Akashi<sup>5</sup>, Yoshiyuki Nakagawa<sup>5</sup> (<sup>1</sup>Nagoya Univ. Institute for Advanced Research, <sup>2</sup>Nagoya Univ. Institute for Advanced Research, Advanced Analytical and Diagnostic Imaging Center (AADIC) / Medical Engineering Unit (MEU), <sup>3</sup>Respiratory Medicine, Nagoya Univ. Grad. Sch. Medicine, <sup>4</sup>Nagoya Univ. Institute of Nano-Life-Systems, Institutes of Innovation for Future Society, <sup>5</sup>Div. OMICS analysis, Nagoya Univ. Grad. Sch. Medicine)

**ODP-216****Effects of emedastine and josamycin on atopic dermatitis like-skin lesions in NC/Nga mice**

○Katsuhiko Matsui, Sayuko Komori, Atsumi Higuchi (Dept. Clin. Immunol., Meiji Pharm. Univ.)

**ODP-217****Microbicidal effect of deep ultraviolet light-emitting diode irradiation**

○Masashi Yanagihara<sup>1</sup>, Jun Nishikawa<sup>2</sup>, Tatsuya Takagi<sup>2</sup>, Soichiro Fukuda<sup>2</sup>, Yuki Kobayashi<sup>2</sup>, Ken-Ichiro Otsuyama<sup>2</sup>, Junzo Nojima<sup>2</sup>, Hidehiro Tsuneoka<sup>2</sup>, Kohei Sakai<sup>3</sup>, Kimikazu Hamano<sup>1</sup> (<sup>1</sup>Dept. Surg. Clin. Sci., Grad. Sch. Med., Yamaguchi Univ., <sup>2</sup>Dept. Lab. Sci., Fac. Health Sci., Grad. Sch. Med., Yamaguchi Univ., <sup>3</sup>Dept. Oncol. Lab. Med., Grad. Sch. Med., Yamaguchi Univ.)

**ODP-218/WS10-3****ATP-dependent Lon protease regulates awakening from ciprofloxacin-induced persistence**

Naoki Maekawa<sup>1</sup>, Kengo Itadera<sup>2</sup>, Junichi Ishihara<sup>2</sup>, Satsuki Kajiji<sup>3</sup>, Daiki Tanaka<sup>4</sup>, Tetsushi Sekiguchi<sup>4</sup>, Shuichi Shoji<sup>3</sup>, Masami Ishibashi<sup>1</sup>, Hiroki Takahashi<sup>2</sup>, ○Akiko Takaya<sup>1,2</sup> (<sup>1</sup>Dep. Nat. Prod. Chem., Grad. Sch. Pharm. Sci., Chiba Univ., <sup>2</sup>MMRC, Chiba Univ., <sup>3</sup>Fac. Sci. Eng., Waseda Univ., <sup>4</sup>Res. Org. Nano Life Inno., Waseda Univ.)

**ODP-219/WS10-2*****E. coli* persister formation from *ldhA* expression is mediated by DNA repair via *recA* expression**

○Yurino Ohno, Naoki Yamamoto, Satoshi Tsuneda (Dept. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ.)

**ODP-220****Estimation of Plasmid Genetic Background by using UGS analysis of ESBL coding gene**

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

### ODP-221

#### Generation of phagemid-based CRISPR-Cas13 antimicrobials against MRSA

○Fengyu Li, Kotaro Kiga, Xin-Ee Tan, Shinya Watanabe, Yusuke Sato'o, Yoshifumi Aiba, Kanate Thitianapakorn, Yusuke Taki, Teppei Sasahara, Longzhu Cui (Div. Bacteriol., Sch. Med., Jichi Med. Univ.)

### ODP-222

#### Inhibitory effect of thymoquinone on biofilm formation of *Fusobacterium nucleatum*

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

### ODP-223

#### Upstream Gene Sequences of *ISEcp1* in ESBL-Producing *E. coli* collected from Indonesia and Vietnam

○Fikri Sasongko Widyatama<sup>1</sup>, Rosantia Sarassari<sup>1,2</sup>, Nobuyoshi Yagi<sup>1</sup>, Kuntaman Kuntaman<sup>2</sup>, Itaru Hirai<sup>1</sup> (<sup>1</sup>Lab. Microb., Sch. Health Sci., Univ. of the Ryukyus, <sup>2</sup>Dept. Clin. Microb., Fac. Med., Airlangga Univ.)

### ODP-224

#### The panel of antibiotic-resistant strains of *Helicobacter pylori*

○Shunji Hayashi<sup>1</sup>, Takako Osaki<sup>1</sup>, Hiroaki Takeuchi<sup>1</sup>, Kenji Yokota<sup>1</sup>, Shin-ichi Yokota<sup>1</sup>, Emiko Rimbara<sup>2</sup> (<sup>1</sup>Subcommittee for the panel of resistant strains of *H. pylori*, JSHR, <sup>2</sup>Dept. Bacteriology II, National Institute of Infectious Diseases)

### ODP-225

#### Role(s) of the MexXY multidrug efflux system on pyoverdine production in *Pseudomonas aeruginosa*

○Kei Ikarashi<sup>1</sup>, Shinya Suzuki<sup>2</sup>, Tadashi Kumazawa<sup>2</sup>, Miyu Nitta<sup>1</sup>, Kotaro Suzuki<sup>1</sup>, Ryo Kutsuna<sup>2</sup>, Junko Tomida<sup>2</sup>, Tomoe Ichikawa<sup>1</sup>, Yoshiaki Kawamura<sup>2</sup>, Yuji Morita<sup>1</sup> (<sup>1</sup>Dept. Infect. Cont. Sci., Sch. Parm., Meiji Pharm. Univ., <sup>2</sup>Dept. Micro., Sch. Pharm., Aichi Gakuin Univ.)

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## 8 Application of Microorganisms

### a. Applications of Microorganisms and Microbial Products

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### ODP-226

#### Exploration of amino acid as an indicator for proliferative activity of *Escherichia coli*

○Akane Yonezawa<sup>1</sup>, Miki Matsue<sup>1</sup>, Asuka Mizutani<sup>2</sup>, Masato Kobayashi<sup>2</sup>, Syuusei Ohata<sup>2</sup>, Yuka Muranaka<sup>2</sup>, Eri Mizusawa<sup>3</sup>, Hideki Maki<sup>3</sup>, Keiichi Kawai<sup>2</sup>, Shigefumi Okamoto<sup>1</sup> (<sup>1</sup>Dept. Clin. Lab. Sci., Kanazawa Univ., Grad. Sch. Med., Pharm., and Health Sci., <sup>2</sup>Dept. Radiology. Lab. Sci., Kanazawa Univ., Grad. Sch. Med., Pharm., and Health Sci., <sup>3</sup>SHIONOGI CO., LTD.)

### ODP-227

#### *Hericium erinaceus* ethanol extracts have endotoxin-neutralizing activity

○Hiraku Osawa<sup>1,2</sup>, Sakura Onoue<sup>3</sup>, Kazuyoshi Kawahara<sup>3</sup>, Kenji Matsushita<sup>4</sup>, Hiroyuki Tada<sup>2</sup> (<sup>1</sup>Sch. Dent., Tohoku Univ., <sup>2</sup>Dept. Oral Immunol., Sch. Dent., Tohoku Univ., <sup>3</sup>Dept. Biosci., College Sci. Engineer., Kanto Gakuin Univ., <sup>4</sup>Dept. Oral Dis. Res., NCGG)

### ODP-228

#### Analysis of collagen-anchor from Clostridial collagenase and its application for nerve regeneration

○Osamu Matsushita<sup>1</sup>, Takehiko Mima<sup>1</sup>, Kazuyoshi Gotoh<sup>1</sup>, Yumiko Yamamoto<sup>1</sup>, Perry Caviness<sup>2</sup>, Joshua Sakon<sup>2</sup>, Kentaro Uchida<sup>3</sup>, Hisako Fujimaki<sup>3</sup>, Gen Inoue<sup>3</sup>, Masashi Takaso<sup>3</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ., <sup>2</sup>Dept. Chem. Biochem., Univ. Arkansas, USA, <sup>3</sup>Dept. Orthop. Surg., Sch. Med., Kitasato Univ.)

### ODP-229

#### Bilateral analgesic effect of botulinum toxin type A in chemotherapy-induced peripheral neuropathy

○Yumiko Yamamoto<sup>1</sup>, Arief Waskitho<sup>2</sup>, Huijiao Yan<sup>2</sup>, Resmi Raju<sup>2</sup>, Swarna Lakshmi Raman<sup>2</sup>, Takehiko Mima<sup>1</sup>, Kazuyoshi Gotoh<sup>1</sup>, Kenji Yokota<sup>3</sup>, Osamu Matsushita<sup>1</sup>, Yoshizo Matsuka<sup>2</sup> (<sup>1</sup>Dept. Bacteriol., Grad. Sch. Med. Dent. Pharm. Sci., Okayama Univ., <sup>2</sup>Grad. Sch. Biomed. Sci., Tokushima Univ., <sup>3</sup>Grad. Sch. Health Sci., Okayama Univ.)

### ODP-230

#### The biological effect of *Monascus* spp.-extracts on cholera toxin production

○Rino Arakaki<sup>1</sup>, Naomi Higa<sup>2</sup>, Jun Xu<sup>2</sup>, Shinjiro Tachibana<sup>1</sup>, Tetsu Yamashiro<sup>2</sup> (<sup>1</sup>Dept. Ferment. Life Sci., Grad. Sch. Agri., Univ. Ryukyus, <sup>2</sup>Dept. Bacteriol. Grad. Sch. Med., Univ. Ryukyus)

### ODP-231

#### Delivery of an Anti-inflammatory Bacterial Toxin to Macrophages Using PLGA-Nanoparticles

○Ayaka Harada<sup>1</sup>, Hiroyasu Tsutsuki<sup>2</sup>, Tianli Zhang<sup>2</sup>, Ruda Lee<sup>3</sup>, Kinnosuke Yahiro<sup>4</sup>, Tomohiro Sawa<sup>2</sup>, Takuro Niidome<sup>1</sup> (<sup>1</sup>Fac. Adv. Sci. and Tech., Kumamoto Univ., <sup>2</sup>Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., <sup>3</sup>Int. Res. Org. Adv. Sci. Tech., Kumamoto Univ., <sup>4</sup>Dept. Mol. Infect., Grad. Sch. Med., Chiba Univ.)

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**8 Application of Microorganisms**  
**b. Biotechnology, and Synthetic Biology**

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**ODP-232**

**Clinical applicability of phage-derived lytic enzyme  
S25-3LYS to canine superficial pyoderma**

○Ichiro Imanishi<sup>1</sup>, Koji Nishifujii<sup>2</sup>, Ryota Asahina<sup>3</sup>, Shunji Hayashi<sup>1</sup>, Tomohiro Tsukui<sup>4</sup>, Jumpei Uchiyama<sup>5</sup> (<sup>1</sup>Dept. Microbiol, Sch. Med., Kitasato Univ., <sup>2</sup>Dept. Vet Interanal Med, Sch. Agr., Tokyo Univ. of Agriculture and Tech., <sup>3</sup>Dept. Dermatol, Sch. Med., Kyoto Univ., <sup>4</sup>Nippon Zenyaku Kogyo Co., Ltd., <sup>5</sup>Dept. Microbiol 1, Sch. Vet., Azabu Univ.)

**ODP-233/WS4-3**

**Visualization of gene expression history Using Genetic  
Toggle Switch**

○Miki Sekimoto<sup>1</sup>, Naoki Yamamoto<sup>1</sup>, Yuto Kawai<sup>1</sup>, Daisuke Kiga<sup>2</sup>, Satoshi Tsuneda<sup>1</sup> (<sup>1</sup>Dept. Life Sci. Med. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ., <sup>2</sup>Dept. Electr. Eng. Biosci., Grad. Sch. Adv. Sci. Eng., Waseda Univ.)

**ODP-234**

**Whole genome cloning of unculturable bacteria**

○Masaki Mizutani, Kaori Miyakoshi, Shigeyuki Kakizawa  
(Bioproduction Research Institute, National Institute of  
Advanced Industrial Science and Technology (AIST))

**ODP-235**

**A novel arabinose-inducible expression system  
developed for *Clostridium perfringens***

○Riyuki Arakawa<sup>1</sup>, Hiroki Kawahata<sup>1</sup>, Hirofumi Nariya<sup>2</sup>,  
Shigeru Miyata<sup>1</sup> (<sup>1</sup>Grad. Sch. Biosci. Biotech., Chubu Univ., <sup>2</sup>Fac.  
Human Life, Jumonji Univ.)

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**8 Application of Microorganisms**  
**c. Others**

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**ODP-236**

**Inhibitory effect of biofilm formation by Abietane-type  
diterpenoids**

○Jyunya Nakai, Keisuke Negishi, Souichi Yamamoto, Kenta Shinohara, Ryuta Nishi, Yoichi Yamada, Toshiyuki Kudo, Sumiko Shiota (Dept. Laboratory of Molecular Biology., Sch. Pha., Shujitsu Univ.)