

■ Program

September, 10th (Tue)

Presentation (Main Hall)

9:00 ~ 10:00 Plenary Lecture 1

Sponsored by The Sasakawa Peace Foundation

【Chairs】 Atsushi Sunami (Ocean Policy Research (OPRI) of the Sasakawa Peace Foundation)
Haruko Takeyama (Waseda University)

【Speakers】

PL1-1 Atsushi Sunami (President, Executive Director of Ocean Policy Research (OPRI) of the Sasakawa Peace Foundation)

“The G20 Osaka Blue Ocean Vision and the Future of the Ocean”

PL1-2 Margaret Spring (Chief Conservation and Science Officer, Monterey Bay Aquarium, USA)

“Monterey Bay: Building Partnerships for Ocean Sustainability”

Poster Short Presentation

【Chair】 Tsuyoshi Ohira (Laboratory of Crustacean Physiology, Department of Biological Sciences, Faculty of Science, Kanagawa University)

13:30 ~ 16:00 Disease and Immunology in Aquaculture

【Chairs】 Anchalee Tassanakajon (Center of Excellence for Molecular Biology and Genomics of Shrimp)
Ikuro Hirono (Tokyo University of Marine Science and Technology)

【Speakers】

01-1 Anchalee Tassanakajon (Center of Excellence for Molecular Biology and Genomics of Shrimp)

“Role of *Litopenaeus vannamei* heat shock protein 70 (LvHSP70) in shrimp immune modulation”

01-2 Keiichiro Koiwai (Department of Precision Mechanics, Faculty of Science and Engineering, Chuo University/Laboratory of Genome Science, Tokyo University of Marine Science and Technology)

“Isolation technique of hemocyte sub-populations of kuruma shrimp and their molecular characteristics”

01-3 Yen Siong Ng (National Cheng Kung University)

“Exploring potential contributions from aerobic glycolysis on lipid metabolism during WSSV infection”

- 01-4** Sang Geun Kim (Laboratory of Aquatic Biomedicine, College of Veterinary Medicine and Research Institute for Veterinary Science, Seoul National University, Seoul, Republic of Korea)
“Estimation of the antibacterial and biofilm removal activity of giant *Vibrio* bacteriophages pVa-21: alternative ways to control *Vibrio* outbreak”
- 01-5** Hidehiro Kondo (Tokyo University of Marine Science and Technology)
“Characterization of the banded houndshark *Triakis scyllium* immunoglobulin M as a source of a specific antibody production”
- 01-6** Pitakthai Chamtim (Department of Biochemistry, Faculty of Science, Kasetsart University)
“Efficacy of Subunit TiLV Vaccine Against Tilapia Lake Virus (TiLV) in Nile tilapia (*Oreochromis niloticus*)”
- 01-7** Yo Okamura (Interdisciplinary Graduate School of Agriculture and Engineering, University of Miyazaki)
“Establishment of interleukin 17 receptor A (RA) deficient medaka (*Oryzias latipes*) using CRISPR-Cas9 system”
- 01-8** Kelsey Abernathy (Department of Microbiology and Immunology, University of Maryland School of Medicine, UMB, Institute of Marine and Environmental Technology, Baltimore, Maryland)
“The zebrafish tandem-repeat galectin (Drgal9-L1) promotes in vitro attachment and infection of the infectious hematopoietic necrosis virus (IHNV)”

Presentation (Sub Hall)

13:30 ~ 16:00 **Blue Innovation, Science to Policy**

Sponsored by The Sasakawa Peace Foundation

[Chair] Takashi Gojobori (Distinguished Professor of Computational Bioscience Research Center, Biological and Environmental Science and Engineering, King Abdullah University of Science and Technology (KAUST))

[Speakers]

- 02-1** Chris Bowler (Ecology and Evolutionary Biology Section, Institut de Biologie de l'Ecole Normale Supérieure (IBENS))
“Tara Oceans: Eco-Systems Biology at Planetary Scale”
- 02-2** Takashi Gojobori (Computational Bioscience Research Center, Biological and Environmental Science and Engineering, King Abdullah University of Science and Technology (KAUST), Thuwal, Saudi Arabia/Research Institute for Science and Engineering, Waseda University, Tokyo, Japan)
“Perspectives of Sustainable Marine Environments from Metagenomics Studies”
- 02-3** Masanori Miyahara (Director of The National Research and Development Agency, Japan Fisheries Research and Education Agency (FRA))
“Science to Policy: Fishery Policy Reform in Japan”

- 02-4** Fumio Inagaki (Mantle Drilling Promotion Office, Institute for Marine-Earth Exploration and Engineering, Japan Agency for Marine-Earth Science and Technology (JAMSTEC))
“Exploring the deep biosphere beneath the ocean: Perspective on planetary habitability”
- 02-5** Tomohiro Tsunoda (Ocean Policy Research Institute (OPRI) of the Sasakawa Peace Foundation, Japan)
“International discussions of marine biodiversity within the UN system”

Presentation (Conference Room)

13:30 ~ 16:00 Algal Biotechnology

Sponsored by The Kyoto University Foundation and
SeedBank Inc. Co., Ltd.

- 【Chairs】** Hideaki Miyashita (Kyoto University)
Eon Seon Jin (Hanyang University)
Song Qin (Chinese Academy of Science)

【Speakers】

- 03-1** EonSeon Jin (Dept. Life Science)
“Stain development of microalgae by use of precise genome editing method for pharmaceutical application”
- 03-2** Tatsuya Sugawara (Graduate School of Agriculture, Kyoto University, Japan)
“Nutraceutical potential of siphonaxanthin from green algae”
- 03-3** Takashi Kadono (Laboratory of Aquatic Environmental Science, Faculty of Agriculture and Marine Science, Kochi University)
“Characterization of *Chaetoceros lorenzianus*-infecting DNA virus promoter of the VP4 gene in *Phaeodactylum tricornutum*”
- 03-4** Yi-Lan Chan (Department of Life Science, Chinese Culture University)
“Study of the brown seaweed sulfate polysaccharide extracts against dengue virus type II (DV2) infection”
- 03-5** Yantao Li (Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science, USA/Institute of Marine and Environmental Technology, University of Maryland Baltimore County, USA)
“Interactions of polyphosphate biosynthesis with triacylglycerol biosynthesis in *Chlamydomonas reinhardtii*”

Presentation (Training Room)

13:30 ~ 16:00 Natural products from Marine Bioresources

Sponsored by Tachonish Holdings Co., Ltd., TOKAI EDUCATION
INSTRUMENT CO., LTD., Moriden Co., Ltd.
and Sekijima Optical CO., LTD.

[Chairs] Hirokazu Kawagishi (Shizuoka University)
Hiroshi Saito (Tokai University)
Toshiyuki Kan (University of Shizuoka)

[Speakers]

- 04-1** Ryuichi Sakai (Faculty and Graduate School of Fisheries Science, Hokkaido University)
“Soritesidine, a potent genotoxin form the marine sponge Spongosorites sp.”
- 04-2** Shigeki Matsunaga (The University of Tokyo)
“Biologically active sponge metabolites isolated through cell-based assays”
- 04-3** Toshio Nishikawa (Graduate School of Bioagricultural Sciences, Nagoya University, Japan)
“Synthesis and Biological Activities of Aplysiatoxin/Oscillatoxin Marine Natural Products”
- 04-4** Daniela Rose Tizabi (Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science)
“Bioprospecting Marine Actinomycetes To Combat Tuberculosis”
- 04-5** Pietro Marchese (Regenerative Medicine Institute, National University of Ireland Galway, Ireland)
“Preliminary evidence of bioactivity from deep sea corals and sponge extracts: influencing human stem cell growth and differentiation”
- 04-6** JAKIA JERIN MEHJABIN (Graduate School of Environmental Science, Hokkaido University, Japan)
“Halogenated biosurfactants from *Moorea bouillonii* collected in Sabah Malaysia”
- 04-7** Taifo Mahmud (Department of Pharmaceutical Sciences, Oregon State University, U.S.A.)
“Biotechnology of Marine Sunscreens”

Poster Discussion (Gallery ABCD)

16:30 ~ 18:00 Disease and Immunology in Aquaculture

[Speakers]

- P1-1** Kyle Andrew Naylor (University of Cape Town)
“Development of a Dusky Kob scFv gene phage display library for the discovery of antibodies to Brome mosaic virus - a proxy for a novel, emerging fish pathogen.”

- P1-2** Jay-Dee Leigh Atkins (University of Cape Town)
“The effect of acute heat stress on calreticulin expression in primary haemocytes isolated from the South African abalone *Haliotis midae*.”
- P1-4** Hao Cong Nguyen (Department of Biochemistry, Faculty of Science, Kasetsart University, Thailand)
“Novel DNA Vectors Vaccine Using Tilapia Constitutive Promoters for Tilapia Disease”
- P1-5** Hyoun Joong Kim (Laboratory of Aquatic Biomedicine, College of Veterinary Science and Research Institute for Veterinary Science, Seoul National University)
“Ostreid Herpesvirus-1 μ Var infection in bay scallop (*Argopecten irradians*) hatcheries in Korea”
- P1-6** Teika Onoue (Interdisciplinary Graduate School of Agriculture and Engineering, University of Miyazaki)
“Diurnal variation of CC motif chemokine 13 gene regulated by clock gene in medaka (*Oryzias latipes*)”
- P1-7** Li-Li Chen (Institute of Marine Biology, National Taiwan Ocean University)
“Application of polyamine carbon quantum dots (CQDs) to an aquatic viral disease control: taking shrimp white spot syndrome (WSS) as an example”
- P1-8** Tsung-Yu Kao (Institute of Marine Biology, National Taiwan Ocean University, Taiwan)
“Metagenomic analysis of grouper (*Epinephelus coioides*) gut microbiota in response to rhamnan sulfate from *Monostroma latissimum*”
- P1-9** Hsin-Yiu Chou (Department of Aquaculture, National Taiwan Ocean University/Center of Excellence for the Oceans, National Taiwan Ocean University)
“Antigenic feature analysis of a voting mechanism based linear epitope prediction system for the host specific Iridoviridae family”
- P1-10** Saekil Yun (Laboratory of Aquatic Biomedicine, College of Veterinary Medicine and Research Institute for Veterinary Science, Seoul National University)
“Novel application of fish vaccine using PLGA microparticle-encapsulated antigens in aquaculture”
- P1-11** Suthinee Soponpong (Center of Excellence for Molecular Biology and Genomics of Shrimp, Thailand)
“Functional characterization of cytosolic DDX41 sensor in mediating antiviral immune response in black tiger shrimp *Penaeus monodon*”
- P1-12** Ramya Kumar (Department of Biotechnology and Bioindustry Sciences, National Cheng Kung University, Taiwan)
“ROLE OF BILE ACID AND BILE ACID TRANSPORTERS IN PATHOGENESIS OF ACUTE HEPATOPANCREATIC NECROSIS DISEASE IN WHITE SHRIMP (*Litopenaeus vannamei*)”
- P1-13** Jirayu Boonyakida (Graduate School of Integrated Science and Technology, Shizuoka University, Japan)
“Characterizations of Five Truncated Major Viral proteins from White Spot Syndrome Virus for Shrimp Vaccination Against White Spot Disease”
- P1-14** Woo Taek Oh (Seoul National University)
“Emergence of red mark syndrome in farmed rainbow trout in Korea”
- P1-15** Kentaro Imaizumi (Tokyo University of Marine Science and Technology)
“Probiotic effect of *Bacillus amyloliquefaciens* strain TOA5001 on whiteleg shrimp (*Litopenaeus vannamei*)”

- P1-16** Toshiyuki Takagi (AORI, The Univ. of Tokyo)
“Transcriptome analysis of innate immunity in the coral *Acropora digitifera* exposed to the bacterial pathogen *Vibrio coralliilyticus* under thermal stress”
- P1-17** Kyutaro Yasumoto (Laboratory of Genome Science, Tokyo University of Marine Science and Technology/Fujikin Inc)
“Characterization of the bester sturgeon (*Huso huso* x *Acipenser ruthenus*) antibody in growth dependent manner.”
- P1-18** Teppei Sato (Laboratory of Genome Science, Tokyo University of Marine Science and Technology)
“Expression analysis of immune related genes by high temperature acclimation of common carp (*Cyprinus carpio*)”
- P1-19** Ivane Pedrosa Gerasmio (Graduate School of Marine Science and Technology, Tokyo University of Marine Science and Technology)
“Passive immunization of shrimp against acute hepatopancreatic necrosis disease (AHPND) using egg yolk immunoglobulin (IgY) against PirA-like toxin in feeds”
- P1-20** Omar Adrienne Pan Alaman (Laboratory of Genome Science, Tokyo University of Marine Science and Technology)
“A short-chain pentraxin in kuruma shrimp (*Marsupenaeus japonicus*) hemocytes binds to microbial polysaccharides and promotes calcium ion-dependent agglutination in vitro”
- P1-21** Channapha Sakseepipad (Laboratory of Genome Science, Tokyo University of Marine Science and Technology)
“Comparative whole-genome sequence analysis base on single nucleotide polymorphisms (SNP) of RSIV-type Megalocytivirus isolated from cultured marine fish in Japan”
- P1-22** Germaine G. K. Lau (Laboratory of Genome Science, Tokyo University of Marine Science and Technology)
“Investigation of serine proteases in the skin flukes *Benedenia seriolae* and *Neobenedenia girellae* in amberjacks *Seriola* spp.”
- P1-23** YURIE YASAKA (Department of Marine Biology and Environmental Sciences, University of Miyazaki, Japan)
“Identification and characterization of pathogenic bacteria isolated from dead masu salmon, *Oncorhynchus masou masou* and antibacterial activity of probiotic *Lactococcus lactis* strain K-C2 against isolated pathogens”
- P1-24** Zittipong Nhnhkorn (Center of Excellence for Molecular Biology and Genomics of Shrimp, Bangkok, Thailand)
“*Penaeus monodon* IKKs participate in regulation of cytokine-like system and antiviral responses of innate immune system”
- P1-25** Natsuki Morimoto (Interdisciplinary Graduate School of Agriculture and Engineering, University of Miyazaki)
“Immune responses to bacterial infection in an ASC-mutated Japanese medaka (*Oryzias latipes*) established by CRISPR-Cas9 system”
- P1-26** Pinwen Peter Chiou (National Taiwan Ocean University)
“Effect of high temperature on the immune response in grouper intestine”

- P1-27** Dien Arista ANGGOROWATI (Department of Life Sciences, Graduate School of Bioresources, Mie University./Research and Development Division for Marine Bioindustry, Indonesian Institute of Sciences (LIPI).)
“Repeated prolonged fasting-induced immunological changes and autophagy activity in disk abalone, *Haliotis discus discus*”
- P1-28** Ansaya Pumchan (Department of Biochemistry, Faculty of Science, Kasetsart University)
“NOVEL MULTIEPITOPE DNA VACCINE FOR CONTROL STREPTOCOCCOSIS DISEASE-MULTI-SEROTYPE PROTECTION”
- P1-30** Atittaya Hoihuan (Department of Biochemistry, Faculty of Science, Kasetsart University)
“Molecular characterization of *Vibrio vulnificus* isolated from diseased brown-marbled grouper (*Epinephelus fuscoguttatus*)”
- P1-36** Wenteng Xu (Yellow Sea Fisheries Research Institute, Chinese Academy of Fishery Sciences. /Laboratory for Marine Fisheries Science and Food Production Processes, Qingdao National Laboratory for Marine Science and Technology)
“Molecular Characterization of *dctn5* and *stat5b1* in Chinese tongue sole and their immune response to *Vibrio harveyi* infection”
- P1-37** Yongbo Bao (Zhejiang Wanli University)
“Heme is essential for antibacterial activity and oxygen-binding of *Tegillarca granosa* recombinational hemoglobin in vitro”
- P1-38** Shao-Yang Hu (Department of Biological Science and Technology, National Pingtung University of Science and Technology/Research Center for Animal Biologics, National Pingtung University of Science and Technology)
“Improvements in the growth performance, immunity, disease resistance, and gut microbiota by the probiotic *Rummeliibacillus stabekisii* in Nile tilapia (*Oreochromis niloticus*)”
- P1-39** Hong-Yi Gong (Department of Aquaculture, College of Life Sciences, National Taiwan Ocean University, Taiwan/Center of Excellence for the Oceans, National Taiwan Ocean University, Taiwan.)
“Granulin peptide GRN-41 of Mozambique tilapia is a novel antimicrobial peptide against *Vibrio* species”
- P1-40** Kohei Yoshihara (Laboratory of Fish Pathology, Tokyo University of Marine Science and Technology)
“Detection of antigen specific IgM-secreting B-cells in the lymphoid organs after immersion and injection vaccination by ELISpot assay”
- P1-41** Sib Sankar Giri (College of Veterinary Medicine and Research Institute of Veterinary Science, Seoul National University)
“Dietary heat-killed *Pseudomonas aeruginosa* strain VSG2 on immune functions, antioxidant efficacy, and disease resistance of *Cyprinus carpio*”

16:30 ~ 18:00 Algal Biotechnology

[Speakers]

- P3-1** Takeshi Saito (Kao corporation, R&D - Biological Science Research)
“Verification study on *Nannochloropsis* cultivation using the full scale open pond race way system.”

- P3-2** Handung Nuryadi (Graduate School of Engineering and Science, University of the Ryukyus)
“Macroscopic colony-forming filamentous cyanobacteria from Okinawan coasts as promising resources of drug discovery”
- P3-3** Shoichiro Suda (Department of Chemistry, Biology and Marine Science, Faculty of Science, University of the Ryukyu)
“Marine green micro flagellates are unexplored resources for application”
- P3-4** Susumu Takio (Center for Water Cycle, Marine Environment and Disaster Management, Kumamoto University)
“Isolation of aseptic culture of the seagrass *Zostera marina* using stored seeds”
- P3-5** Takashi Inada (Graduate School of Life and Environmental Sciences, University of Tsukuba)
“Synthesis of hydroxy fatty acids in the cyanobacterium *Synechocystis* sp. PCC 6803”
- P3-7** Jiangyu Zhu (Graduate School of Life Science and Systems Engineering, Kyushu Institute of Technology)
“Application Potential of Phytic Acid in the Harvest of *Arthrospira platensis*”
- P3-10** Nguyen Thi Thu Ha (Department of Life Science, College of Natural Sciences, Hanyang University)
“Employing CRISPR-Cas9 technology to increase lipid productivity in *Chlamydomonas reinhardtii*”
- P3-11** Masahiro Hayashi (Department of Marine Biology and Environmental Sciences, Faculty of Agriculture, University of Miyazaki)
“Metabolome Analysis of Xylose Assimilating *Thraustochytrids*”
- P3-12** Ayako Matsuda (Department of Marine Biology and Environmental Sciences, Faculty of Agriculture, University of Miyazaki)
“Adaptation of *Thraustochytrid* to Xylose and Metabolic Profiling of the Adapted Strain”
- P3-13** Inhwa Song (Department of Life Science, Hanyang University)
“Zeaxanthin Rich Oil Producing *Chlamydomonas* by CRISPR-Cas9 RNP”
- P3-15** Hiroki Miyauchi (School of Life Sciences, Tokyo University of Pharmacy and Life Sciences)
“Phosphate uptake by the green alga *Chlorella* and its application”
- P3-16** Nattiwong Pankasem (Faculty of Life and Environmental Sciences, University of Tsukuba, Japan)
“Substrate Specificity of the Cytochrome b_5 -containing $\Delta 6$ Fatty Acid Desaturase localized in the Chloroplast of the Marine Prasinophyte, *Ostreococcus tauri*”
- P3-17** Hideaki Miyashita (Graduate School of Human and Environmental Studies, Kyoto University)
“Isolation, selection and evaluation of oleaginous microalgae for enhancing biomass productivity by attached cultivation system”
- P3-18** Chen Chun Yen (University Center for Bioscience and Biotechnology, National Cheng Kung University)
“Engineering strategies for enhancing microalgae protein production from an indigenous microalga *Chlorella vulgaris* FSP-E”

- P3-19** Takahide Onda (Kogakuin University)
“Carotenoids esterification of aerial microalga *Coelastrella* sp. KGU-Y002 in a dry environment”
- P3-20** Naritaka Kawashima (Kogakuin University)
“Biofuel production on a surface of wall using aerial microalga *Coccomyxa* sp. KGU-D001”
- P3-22** Feng Chen (Institute of Marine and Environmental Technology, University of Maryland Center for Environmental Science)
“Integrated Algal Biotechnology for Enviromental Remediation and Cost Reduction”
- P3-23** Toshifumi Kashiwagi (USUI CO., LTD.)
“Development of a device for efficient dissolution of carbon dioxide into the mass culture of algae”
- P3-24** Yasuhito Yokoi (Department of Biotechnology and Life Science, Tokyo University of Agriculture and Technology)
“Elucidation of macroalgae-microbe relationships via macroalgae related bacterial isolates”
- P3-26** Muhammad Junaid (Graduate School of Life and Environmental Sciences, University of Tsukuba, Japan)
“Development of the reversible regulatory system for gene expression using an acyl-homoserine lactone-mediated sensor and a lactonase in the cyanobacterium *Synechocystis* sp. PCC 6803”
- P3-27** Keisuke Soejima (Department of Biosciences, Kanto Gakuin University College of Science and Engineering)
“Analysis of mutants that suppressed oil degradation under dark conditions”
- P3-28** Shigeru Okada (Graduate School of Agricultural and Life Sciences, The University of Tokyo, Bunkyo-ku, Tokyo, Japan)
“Production of highly methylated triterpene hydrocarbons by a strain of the green microalga *Botryococcus braunii* isolated in Japan”
- P3-29** Naoya Oku (Research Center for Biotechnology and Pharmaceutical Engineering, and Department of Biotechnology, Toyama Prefectural University, Japan)
“New Antimicrobial ether lipids from “Tateyama-marimo” (*Aegagropilopsis moravica*), a rare species of marimo (Chlorophyta)”

16:30 ~ 18:00 Natural products from Marine Bioresources

[Speakers]

- P4-1** Tatsuya Oda (Graduate School of Fisheries Science & Environmental Studies, Nagasaki University)
“Antibacterial activity of a porphyrin derivative isolated from the harmful dinoflagellate *Heterocapsa circularisquama*”
- P4-2** Naoto Kimura (School of Pharmaceutical Sciences University of Shizuoka)
“Synthetic study on Protoaculeine B”

- P4-3** Hikaru Yamagami (Division of Sustainable and Environmental Engineering, Muroran Institute of Technology)
“Identification of a bioactive substance improving scopolamine-induced memory impairment from nacre of pearl oyster (*P. fucata*)”
- P4-4** Kazuma Oura (Division of Sustainable and Environmental Engineering, Muroran institute of technology)
“Bioactive substance from Pearl oyster(*P. fucata*) nacre improves d-galactose-induced memory impairment”
- P4-5** Shimpei Sumimoto (Department of Chemistry, Biology and Marine Science, Faculty of Science, University of the Ryukyus/Department of Chemistry, Keio University)
“Isolation and biological activity of minnamide A, a linear lipopeptide from marine cyanobacteria”
- P4-6** Inneke Fenny Melke Rumengan (Faculty of Fisheries and Marine Science, Sam Ratulangi University)
“Cultivation and Molecular Identification of the Photosynthetic Microbes Associated with Tunicates Originated from Manado Bay, North Sulawesi, Indonesia”
- P4-7** Masashi Tsuda (Center for Advanced Marine Core Research, Kochi University/Department of Agriculture and Marine Science, Kochi University)
“Structures and cytotoxic activities of new metabolites from the marine dinoflagellates *Amphidinium* species”
- P4-8** Hitoshi Ouchi (School of Pharmaceutical Sciences, University of Shizuoka)
“Synthetic study of domoic acid”
- P4-9** Kazuma Ueno (Department of Agriculture and Marine Science, Kochi University)
“Research of Bioactive substances from the marine snails”
- P4-10** Liyan Wang (College of Life Sciences and Oceanography, Shenzhen University)
“Anti-bacteria components from a marine derived fungi- *Aspergillus* sp. L1”
- P4-11** Yuki Manabe (Division of Applied Biosciences, Graduate School of Agriculture, Kyoto University)
“Anti-allergic effect of siphonaxanthin and its molecular mechanism”
- P4-12** Satoshi Ohte (Graduate School of Pharmaceutical Sciences, Kitasato University/ School of Pharmacy, Kitasato University)
“Glisoprenin F, an inducer of alkaline phosphatase activity in mesenchymal lineage cells, produced by a marine-derived *Aspergillus polyporicola* BFM-0088”
- P4-16** Mitsuru Jimbo (Kitasato University)
“Characterization of a GFP-like protein AKANE from a coral *Scleronephthya gracillima*”
- P4-17** Sung-Koo Kim (Pukyong National University)
“Light emitting diode(LED) and temperature effects on marine microalgal biomass production, lipid accumulation and fatty acid composition”
- P4-18** Hayato Nyunoya (Dept. Biosci. Biotech., Grad. Sch. Biore. Bioenvtl. Sci., Kyushu Univ.)
“Evaluation of delta5 desaturase activity in marine fish cells”
- P4-19** Agustinus R. Uria (Faculty of Pharmaceutical Sciences, Hokkaido University)
“Biosynthetic potential of rare marine bacteria isolated from Okinawan sponges”

- P4-20** Jung Hwan Oh (Marine Biotechnology Center for Pharmaceuticals and Foods, College of Medical and Life Sciences, Silla University)
“Protective effect of bioactive component isolated from *Limonium tetragonum* against UVA-induced photoaging in human kretatinocytes.”
- P4-21** Jung Im Lee (Marine Biotechnology Center for Pharmaceuticals and Foods, College of Medical and Life Sciences, Silla University)
“Anti-adipogenic effect of compounds and solvent fractions from *Lisustrum japonicum fructus*”
- P4-23** Yoshihiko Akakabe (Graduate School of Sciences and Technology for Innovation, Yamaguchi University)
“Characteristic aroma polyenes in marine algae”
- P4-25** Jung Im Lee (Marine Biotechnology Center for Pharmaceuticals and Foods, College of Medical and Life Sciences, Silla University)
“Effect of the crude extract and its solvent fraction from *Artemisia scoparia* on 3T3-L1 adipocyte differentiation”
- P4-26** Min Joo Bae (Department of Food and Nutrition, Collage of Medical and Life Science, Silla University)
“Effect of *Corydalis heterocarpa* extract against UVA-induced photoaging in human fibroblasts.”
- P4-27** Azusa Kubota (Kitasato University School of Marine Biosciences)
“Effect of polyamine transporter inhibitor on the pH increase in calcifying fluids of juvenile coral polyps possibly associated with calcification processes”
- P4-30** Issara Kaweewan (Graduate School of Science and Technology, Shizuoka University, Japan)
“Genome sequencing and chemical investigation on a marine actinobacterium *Streptomyces spongiicola* 531S”
- P4-31** Hiromi Warari (Faculty and Graduate School of Fisheries Science, Hokkaido University, Hakodate, Japan)
“A novel sponge-derived protein thrombocortcin is a new agonist for thrombopoietin receptor”
- P4-32** Kei Miyako (Hokkaido University, Graduate School and Faculty of Fisheries Sciences, 3-1-1 Minato-cho, Hakodate, 041-8611, Japan)
“Metaboromics identirication of bioactive metabolites form solitary tunicates”