

## Poster Presentations

**Odd numbers: November 20 (Monday) 16:30-18:00**

**Even numbers: November 21 (Tuesday) 13:40-15:10**

**P-001 Reaction of sugar oxazolines with primary amines**

Minoru Suda, Wataru Sumiyoshi, Takashi Kinoshita, Shoko Ohno (Fushimi Pharmaceutical Co. Ltd.)

**P-002 Conformational studies on peptides having  $\alpha,\alpha$ -disubstituted  $\alpha$ -amino acids with (–)-menthyl skeleton**

Suguru Matsumoto<sup>1</sup>, Atsushi Ueda<sup>1</sup>, Mitsunobu Doi<sup>2</sup>, Masakazu Tanaka<sup>1</sup> (<sup>1</sup>Graduate School of Biomedical Sciences, Nagasaki University, <sup>2</sup>Osaka University of Pharmaceutical Sciences)

**P-003 Synthesis of chiral three-membered ring  $\alpha,\alpha$ -disubstituted  $\alpha$ -amino acid and conformational analysis of its peptides**

Yurie Koba, Hikaru Ikeda, Atsushi Ueda, Makoto Oba, Yosuke Demizu, Mitsunobu Doi, Masakazu Tanaka (Graduate School of Biomedical Sciences Nagasaki University)

**P-004 Development of chemical synthetic strategies for peptidomimetic based on a chloroalkene dipeptide isostere and its application to a cyclic RGD peptide**

Takuya Kobayakawa<sup>1</sup>, Wataru Nomura<sup>1</sup>, Kentaro Hozumi<sup>2</sup>, Motoyoshi Nomizu<sup>2</sup>, Hirokazu Tamamura<sup>1</sup> (<sup>1</sup>Institute of Biomaterials and Bioengineering, Tokyo Medical and Dental University, <sup>2</sup>School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

**P-005 Biosynthesis of high molecular weight collagen-like artificial protein**

Satoshi Yamada<sup>1</sup>, Seiji Matsuki<sup>2</sup>, Yoshiaki Hirano<sup>2,3</sup>, Sachiro Kakinoki<sup>2,3</sup> (<sup>1</sup>Graduate School of Science and Engineering Kansai University, <sup>2</sup>Faculty of Chemistry, Materials and Bioengineering, Kansai University, <sup>3</sup>The Organization for Research and Development of Innovative Science and Technology, Kansai University)

**P-006 Secondary structures of homopeptides composed of cyclopentene-based amino acid**

Haruka Yakabi<sup>1</sup>, Haruki Nakatani<sup>1</sup>, Makoto Oba<sup>2</sup>, Atsushi Ueda<sup>2</sup>, Mitsunobu Doi<sup>3</sup>, Masakazu Tanaka<sup>2</sup> (<sup>1</sup>Faculty of Pharmaceutical Sciences, Nagasaki University, <sup>2</sup>Graduate School of Biomedical Sciences, Nagasaki University, <sup>3</sup>Osaka University of Pharmaceutical Sciences)

**P-007 Asymmetric synthesis of  $\alpha$ -deuterated  $\alpha$ -amino acids**

Ryosuke Takeda<sup>1,2</sup>, Hidenori Abe<sup>1</sup>, Norio Shibata<sup>3</sup>, Hiroki Moriwaki<sup>1</sup>, Kunisuke Izawa<sup>1</sup>, Vadim A. Soloshonok<sup>2,4</sup> (<sup>1</sup>Hamari Chemicals Ltd., <sup>2</sup>Department of Organic Chemistry I, Faculty of Chemistry, University of the Basque Country, <sup>3</sup>Department of Nanopharmaceutical Sciences, and Department of Life Science and Applied Chemistry, Nagoya Institute of Technology, <sup>4</sup>IKERBASQUE, Basque Foundation for Science)

**P-008 Effects of salts and pH on coacervation of short elastin-like peptide (FPGVG)<sub>5</sub>**

Daiki Tatsubo<sup>1</sup>, Misako Kodama<sup>1</sup>, Keiji Sato<sup>1</sup>, Keitaro Suyama<sup>2</sup>, Iori Maeda<sup>3</sup>, Takeru Nose<sup>1,2</sup> (<sup>1</sup>Department of Chemistry, Graduate School of Science, Kyushu University, <sup>2</sup>Faculty of Arts and Science, Kyushu University, <sup>3</sup>Department of Bioscience and Bioinformatics, Kyushu Institute of Technology)

**P-009 The first synthesis of caged arginine and light control of caged peptides**

Yoshiki Konda<sup>1</sup>, Ryosuke Sakamoto<sup>1</sup>, Gosuke Hayashi<sup>1</sup>, Akimitsu Okamoto<sup>1,2</sup> (<sup>1</sup>The University of Tokyo, Graduate School of Engineering, <sup>2</sup>The University of Tokyo, Research Center for Advanced Science and Technology)

**P-010 Synthesis and stability evaluation of new 3-nitro-2-pyridinesulfenatate derivatives**

Yan Cui, Cédric Rentier, Akihiro Taguchi, Kentaro Takayama, Atsuhiko Taniguchi, Yoshio Hayashi (Department of Medicinal Chemistry, Tokyo University of Pharmacy and Life Sciences)

**P-011 Peptide foldamers changing their conformations in response to low pH trigger**

Kaori Furukawa<sup>1</sup>, Makoto Oba<sup>1</sup>, Kotomi Toyama<sup>1</sup>, Opiyo Geroge Ouma<sup>1</sup>, Yosuke Demise<sup>2</sup>, Masaaki Kurihara<sup>3</sup>, Mitsunobu Doi<sup>4</sup>, Masakazu Tanaka<sup>1</sup> (<sup>1</sup>Graduate School of Biomedical Sciences, Nagasaki University, <sup>2</sup>National Institute of Health Sciences, <sup>3</sup>International University of Health and Welfare, <sup>4</sup>Osaka University of Pharmaceutical Sciences)

**P-012 Synthetic study of cyclic disulfide peptide by using the solid-phase disulfide ligation method**

Akihiro Taguchi, Yan Cui, Sahoko Fukumoto, Kiyotaka Kobayashi, Saeka Kuraishi, Kentaro Takayama, Atsuhiko Taniguchi, Yoshio Hayashi (Department of Medicinal Chemistry, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)

**P-013 Porphyrin-peptoid conjugates: controlled porphyrin interactions via peptoid structural change**

Woojin Yang, Boyeong Kang, Jiwon Seo (Department of Chemistry, School of Physics and Chemistry, Gwangju Institute of Science and Technology)

**P-014 Porphyrin receptor: host-guest effect of chiral bis-(zinc porphyrin)-peptoid conjugate**

Yen Jea Lee, Jiwon Seo (Department of Chemistry, Gwangju Institute of Science and Technology)

**P-015 A facile method to construct azide- and cyanide-containing peptoids on resin**

Dahyun Kang, Yen Jea Lee, Jiwon Seo (Department of Chemistry, School of Physics and Chemistry, Gwangju Institute of Science and Technology)

**P-016 Formation of oxopiperazine-containing peptoids through C-terminal cyclization**

Yun Jee Lee, Jiwon Seo (Department of Chemistry, School of Physics and Chemistry, Gwangju Institute of Science and Technology)

**P-017 A facile method for preferential modification of the N-terminal amino group of peptides using DMT-MM**

Hironori Juichi, Atsushi Kitanaka, Yoichiro Nihashi, Masahiro Miyashita, Hisashi Miyagawa (Graduate School of Agriculture, Kyoto University)

**P-018 Construction of a hetero-dimeric macrocyclic peptide library for the discovery of peptide ligands that induce IL28RA-IL10RB hetero-dimerization**

Satoshi Ishida, Takayuki Katoh, Hiroaki Suga (Graduate School of Science, The University of Tokyo)

**P-019 Ralstonins A and B, unique lipopeptides synthesized by quorum sensing-dependent PKS-NRPS in *Ralstonia solanacearum***

Yuta Murai<sup>1</sup>, Shoko Mori<sup>2</sup>, Hiroyuki Konno<sup>3</sup>, Yasufumi Hikichi<sup>4</sup>, Kenji Kai<sup>1</sup> (<sup>1</sup>Graduate School of Life and Environmental Sciences, Osaka Prefecture University, <sup>2</sup>Bioorganic Research Institute, Suntory Foundation for Life Sciences, <sup>3</sup>Graduate School of Science and Technology, Yamagata University, <sup>4</sup>Laboratory of Plant Pathology and Biotechnology, Kochi University)

**P-020 Total synthesis and biological evaluation of PF1171B, D, E, and avellanins A, B, C**

Masaya Honda, Yuichi Masuda (Graduate School of Bioresources, Mie University)

**P-021 Total synthesis of neuroactive  $\mu$ -conotoxin LT5D using two folding strategies**

Ansyl Marie B. Naraga<sup>1</sup>, Oliver John V. Belleza<sup>1</sup>, Iris Bea L. Ramiro<sup>2</sup>, Abe Ernest Johann E. Isagan<sup>2</sup>, Gisela P. Concepcion<sup>2</sup>, Aaron Joseph L. Villaraza<sup>1</sup> (<sup>1</sup>Institute of Chemistry, University of the Philippines, <sup>2</sup>Marine Science Institute, University of the Philippines)

- P-022 Isolation, purification, and characterization of bioactive peptides from the cone snail, *Conus striolatus***  
Abe Ernest Johann E. Isagan<sup>1</sup>, Iris Bea L. Ramiro<sup>1</sup>, Ansyl Marie B. Naraga<sup>2</sup>, Oliver John V. Belleza<sup>2</sup>, Julita S. Imperial<sup>3</sup>, Baldomero M. Olivera<sup>3</sup>, Aaron Joseph L. Villaraza<sup>2</sup>, Gisela P. Concepcion<sup>1</sup> (<sup>1</sup>Marine Science Institute, University of the Philippines, <sup>2</sup>Institute of Chemistry, University of the Philippines, <sup>3</sup>Department of Biology, Salt Lake City, Utah, USA)
- P-023 Isolation and chemical synthesis of a neuroactive peptide from *Conus stercusmuscarum***  
Victor M. Chua<sup>1</sup>, Oliver John V. Belleza<sup>2</sup>, Ansyl Marie B. Naraga<sup>2</sup>, Julita S. Imperial<sup>3</sup>, Aaron Joseph L. Villaraza<sup>2</sup>, Gisela P. Concepcion<sup>1</sup> (<sup>1</sup>Marine Science Institute, College of Science, National Science Complex, University of the Philippines, <sup>2</sup>Institute of Chemistry, College of Science, National Science Complex, University of the Philippines, <sup>3</sup>Department of Biology, University of Utah)
- P-024 Effects of novel peptide from fish elastin on cells**  
Kenji Miyanari<sup>1</sup>, Eri Shiratsuchi<sup>1</sup>, Mitsuki Takuno<sup>2</sup>, Takahito Komine<sup>2</sup>, Kazunari Arima<sup>2</sup>, Michio Yamada<sup>1</sup> (<sup>1</sup>Research & Development division, Hayashikane Sangyo Co., Ltd, <sup>2</sup>Department of Chemistry and Bioscience, Graduate School of Science and Engineering, Kagoshima University)
- P-025 Existence and molecular forms of N-formylated peptide derived from cytochrome c oxidase subunit I**  
Toshihiro Shimizu, Tatsuya Hattori, Takayuki Martini, Yoshiaki Kiso, Hidehito Mukai (Laboratory of Peptide Science, Graduate School of Bio-Science, Nagahama Institute of Bio-Science and Technology)
- P-026 2,2'-Dipyridyl disulfide is an efficient deprotectant for N-terminal thiazolidine**  
Hidekazu Katayama, Satoki Morisue (Department of Applied Biochemistry, School of Engineering, Tokai University)
- P-027 Fast and cost effective solid phase synthesis of high quality crude peptides**  
Mandar Maduskar, Hossain Saneii, Mostafa Hatem, Farshad Karimi, Robert Obermann, William Bennett (AAPPTec LLC)
- P-028 Microwave-assisted solid-phase synthesis of peptide-o-aminoanilide: scope and limitations**  
Shugo Tsuda, Tsuyoshi Uemura, Hideki Nishio, Yoshiya Taku (Peptide Institute, Inc.)
- P-029 Evaluation of a new type thioester equivalent using intramolecular N-to-S acyl shift**  
Shugo Tsuda<sup>1</sup>, Masayoshi Mochizuki<sup>1</sup>, Ken Sakamoto<sup>1</sup>, Masaya Denda<sup>2</sup>, Hideki Nishio<sup>1</sup>, Akira Otaka<sup>2</sup>, Taku Yoshiya<sup>1</sup> (<sup>1</sup>Peptide Institute, Inc., <sup>2</sup>Institute of Biomedical Sciences and Graduate School of Pharmaceutical Sciences, Tokushima University)
- P-030 Development of imidazole additive to accelerate native chemical ligation**  
Ken Sakamoto, Shugo Tsuda, Masayoshi Mochizuki, Yukie Nohara, Hideki Nishio, Taku Yoshiya (Peptide Institute, Inc.)
- P-031 Development of peptide macrocyclization protocol utilizing o-aminoanilide linker for flow chemistry**  
Takumi Ohara, Masato Kaneda, Tomo Saito, Hiroaki Ohno, Shinya Oishi (Graduate School of Pharmaceutical Sciences, Kyoto University)
- P-032 Synthesis of glycopeptide using Boc group for the protection of carbohydrate hydroxyl groups**  
Tomohiro Tanaka, Mika Shiraishi, Reiko Sugihara, Akio Matsuda, Mamoru Mizuno (The Noguchi Institute)
- P-033 Development of methodology for producing thioesters from naturally occurring peptide sequences**

Chiaki Komiya, Jun Tsukimoto, Takuya Morisaki, Yusuke Tsuda, Rin Miyajima, Tsubasa Inokuma, Akira Shigenaga, Kohji Itoh, Akira Otake (Institute of Health Biosciences and Graduate School of Pharmaceutical Sciences, Tokushima University)

**P-034 Appropriate quality control of middle molecular peptide API, depending on the purpose of use**

Shunsuke Ochi, Yoshinori Murata (API R&D Center, CMC R&D Division, Shionogi & Co., LTD.)

**P-035 A novel N-protection-free ligation based on the thioester method**

Hironobu Hojo<sup>1</sup>, Toru Kawakami<sup>1</sup>, Yuta Hiroyama<sup>2</sup>, Saburo Aimoto<sup>1</sup> (<sup>1</sup>Institute for Protein Research, Osaka University, <sup>2</sup>Hamari Chemicals, Ltd.)

**P-036 Investigation for the detection of peptides N-terminus on solid support**

Rio Suzuki, Hiroyuki Konno (Department of Biochemical Engineering, Graduate School of Science and Technology, Yamagata University)

**P-037 Seamless cyclization of collagen-like peptides with Gly-X-Y-repeating sequences**

Kazuki C. Kuroda, Fumiko Hisamatsu, Takaki Koide (Department of Chemistry and Biochemistry, School of Advanced Science and Engineering, Waseda University)

**P-038 Synthetic study for teixobactin**

Kosuke Ohsawa<sup>1</sup>, Takuya Tokunaga<sup>1</sup>, Carys Thomas<sup>2</sup>, A. Ganesan<sup>2</sup>, Yuichi Masuda<sup>3</sup>, Takayuki Doi<sup>1</sup> (<sup>1</sup>Graduate School of Pharmaceutical Sciences, Tohoku University, <sup>2</sup>School of Pharmacy, University of East Anglia, <sup>3</sup>Graduate School of Bioresources, Mie University)

**P-039 Two tandem-arrayed lysine residues play a key role in an allosteric peptide inhibitor binding to ERK2**

Yurika Mori, Takayoshi Kinoshita (Graduate School of Science, Osaka Prefecture University)

**P-040 Phenylalanine to cyclohexylalanine substitution inhibits amyloid formation by Alzheimer's amyloid  $\beta$ -peptide**

Mayumi Genji, Yoshiaki Yano, Masaru Hoshino, Katsumi Matsuzaki (Graduate School of Pharmaceutical Sciences, Kyoto University)

**P-041 Development of solid-phase synthesis protocol of coibamide A for the structure-activity relationship study**

Shinsaku Kawaguchi<sup>1</sup>, Kerry L. McPhail<sup>2</sup>, Shinsuke Inuki<sup>1</sup>, Hiroaki Ohno<sup>1</sup>, Shinya Oishi<sup>1</sup> (<sup>1</sup>Graduate School of Pharmaceutical Sciences, Kyoto University, <sup>2</sup>College of Pharmacy, Oregon State University)

**P-042 Phe271<sup>5,39</sup> of thrombin receptor PAR-1 is a specific target of Phe-2-phenyl group of its tethered ligand**

Makiko Sugiyama<sup>1</sup>, Tsugumi Fujita<sup>2</sup>, Xiaohui Liu<sup>1</sup>, Yutaka Matsuyama<sup>1</sup>, Ayami Matsushima<sup>1</sup>, Miki Shimohigashi<sup>3</sup>, Yasuyuki Shimohigashi<sup>4</sup> (<sup>1</sup>Department of Chemistry, Faculty and Graduate School of Science, Kyushu University, <sup>2</sup>Department of Physiology, Saga Medical School, <sup>3</sup>Department of Earth System of Science, Faculty of Science, Fukuoka University, <sup>4</sup>Risk Science Project Laboratory, Kyushu University)

**P-043 Structure-activity relationship study for  $\alpha$ -dystroglycan binding peptide A2G80 derived from mouse laminin  $\alpha$ 2 chain sequence**

Fumihiko Katagiri, Yuka Fukasawa, Jun Kumai, Kentaro Hozumi, Yamato Kikkawa, Motoyoshi Nomizu (Department of Clinical Biochemistry, Tokyo University of Pharmacy and Life Sciences)

**P-044 *In silico* analysis strategy to explore the active conformers of cyclic peptides and docking to their receptor**

Akitoshi Okada, Yoshirou Kimura, Ryoichi Kataoka (Life Science Department, MOLISIS Inc.)

**P-045 Development of cationic cell-penetrating peptides focused on their secondary structures**

Hiroyuki Kobayashi<sup>1,2</sup>, Takashi Misawa<sup>2</sup>, Makoto Oba<sup>3</sup>, Masakazu Tanaka<sup>3</sup>, Mikihiko Naito<sup>2</sup>, Kenji Matsuno<sup>1</sup>, Yosuke Demizu<sup>2</sup> (<sup>1</sup>School of Advanced Engineering, Kogakuin University, <sup>2</sup>Division of Organic Chemistry, National Institute of Health Sciences, <sup>3</sup>Graduate School of Biomedical Sciences, Nagasaki University)

**P-046 Development of post functionalizable oligopeptides as helical templates**

Takashi Misawa, Yosuke Demizu (Division of Organic Chemistry, National Institute of Health Sciences)

**P-047 Structure-hydrogelation relationship of self-assembling peptides with urea bond toward cell scaffold material**

Iori Kodama, Hisakazu Mihara, Hiroshi Tsutsumi (School of Life science and Technology, Tokyo Institute of Technology)

**P-048 Proline residue promotes self-association of transmembrane helices**

Jun Uehara, Yoshiaki Yano, Katsumi Matsuzaki (Graduate School of Pharmaceutical Sciences, Kyoto University)

**P-049 Comparison of proteolytic activity of 5-mer peptides derived from box A domain of Tob/BTG family proteins**

Yusuke Hatakawa<sup>1</sup>, Rina Nakamura<sup>2</sup>, Masanari Taniguchi<sup>1</sup>, Motomi Konishi<sup>1</sup>, Toshifumi Akizawa<sup>1,2</sup> (<sup>1</sup>Laboratory of Clinical Analytical Chemistry, Faculty of Pharmaceutical Sciences, Setsunan University, <sup>2</sup>O-force Co. Ltd.)

**P-050 Characterization of the Ca<sup>2+</sup>-coordination structures of T- and L-plastins by infrared spectroscopy in combination with synthetic peptide analogue**

Masayuki Nara<sup>1</sup>, Hisayuki Morii<sup>1,2</sup>, Takashi Shimizu<sup>2</sup>, Hiroto Shinomiya<sup>3</sup>, Yuka Furuta<sup>4</sup>, Kenichi Miyazono<sup>4</sup>, Takuya Miyakawa<sup>4</sup>, Masaru Tanokura<sup>4</sup> (<sup>1</sup>College of Liberal Arts and Sciences, Tokyo Medical and Dental University (TMDU), <sup>2</sup>National Institute of Advanced Industrial Science and Technology (AIST), <sup>3</sup>Department of Medicine, Ehime University, <sup>4</sup>Graduate School of Agricultural and Life Sciences, University of Tokyo)

**P-051 Design of programmable pore-forming model using  $\beta$ -sheet peptides**

Keisuke Shimizu<sup>1</sup>, Naoki Saigo<sup>1</sup>, Yusuke Sekiya<sup>1</sup>, Shungo Sakashita<sup>2</sup>, Yoshio Hamada<sup>2</sup>, Kenji Usui<sup>2</sup>, Ryuji Kawano<sup>1</sup> (<sup>1</sup>Department of Life Science and Biotechnology, Tokyo University of Agriculture and Technology, <sup>2</sup>Department of Nanobiochemistry, Konan University)

**P-052 Can peptide deformylase produces methionine aminopeptidase inhibitors from their formylated-precursors?**

Yukari Oishi<sup>1</sup>, Yuri Takami<sup>1</sup>, Junichi Taira<sup>2</sup>, Hiroaki Kodama<sup>1</sup>, Satoshi Osada<sup>1</sup> (<sup>1</sup>Department of Chemistry and Applied Chemistry, Faculty of School and Engineering, Saga University, <sup>2</sup>Department of Bioscience and Bioinformatics, Kyushu Institute of Technology)

**P-053 Channel current measurement and analysis for programmable designs of stable pore-forming alpha-helical peptides in lipid bilayer**

Yusuke Sekiya, Ryuji Kawano (Department of Biotechnology and Life Science, Tokyo University of Agriculture and Technology)

**P-054 Analysis of membrane permeation activity of cellpenetrating peptides using channel current measurements**

Naoki Saigo<sup>1</sup>, Yusuke Sekiya<sup>1</sup>, Akira Ishiguro<sup>2</sup>, Yukihito Ishizaka<sup>2</sup>, Ryuji Kawano<sup>1</sup> (<sup>1</sup>Department of Life Science and Biotechnology, Tokyo University of Agriculture and Technology, <sup>2</sup>Department of Intractable Diseases, National Center for Global Health and Medicine)

**P-055 Design of plasmin inhibitor with targeting the S2' subsite**

Seika Sugiura<sup>1</sup>, Koushi Hidaka<sup>1,2</sup>, Keiko Hojo<sup>1,2</sup>, Keigo Gohda<sup>3</sup>, Naoki Teno<sup>4</sup>, Keiko Wanaka<sup>5</sup>, Yuko Tsuda<sup>1,2</sup> (<sup>1</sup>Faculty of Pharmaceutical Sciences, Kobe Gakuin University, <sup>2</sup>Cooperative Research Center of Life Sciences, Kobe Gakuin University, <sup>3</sup>Computer-Aided Molecular Modeling Research Center, Kansai, <sup>4</sup>Faculty of Clinical Nutrition, Hiroshima International University, <sup>5</sup>Research Projects on Thrombosis and Haemostasis)

**P-056 Interaction detail between sugar chain on HSV-1 glycoprotein with immune receptor PILRa**

Takao Nomura<sup>1</sup>, Kosuke Kakita<sup>2</sup>, Atsushi Furukawa<sup>3</sup>, Masahiro Anada<sup>2</sup>, Shunichi Hashimoto<sup>2</sup>, Shigeki Matsunaga<sup>2</sup>, Takashi Saitoh<sup>4</sup>, Katsumi Maenaka<sup>1,3</sup> (<sup>1</sup>Center for Research and Education on Drug Discovery, Faculty of Pharmaceutical Sciences, Hokkaido University, <sup>2</sup>Laboratory of Synthetic and Industrial Chemistry, Faculty of Pharmaceutical Sciences, Hokkaido University, <sup>3</sup>Laboratory of Biomolecular Science, Faculty of Pharmaceutical Sciences, Hokkaido University, <sup>4</sup>School of Pharmacy, Hokkaido Pharmaceutical University)

**P-057 Comprehensive phylogeny-based analysis for molecular evolution of p53 family proteins**

Fuki Kudoh, Natsumi Nakagawa, Rui Kamada, Kazuyasu Sakaguchi (Laboratory of Biological Chemistry, Department of Chemistry, Faculty of Science, Hokkaido University)

**P-058 Correlation between transcriptional activity and tetrameric structure stability of vertebrate p53 proteins**

Natsumi Nakagawa, Junya Wada, Toshiaki Imagawa, Rui Kamada, Kazuyasu Sakaguchi (Laboratory of Biological Chemistry, Department of Chemistry, Faculty of Science, Hokkaido University)

**P-059 Novel methods for blocking amyloidogenesis of prion protein (180–193)**

Ikumi Shibata<sup>1</sup>, Tomomi Ueda<sup>1</sup>, Hisayuki Morii<sup>2</sup>, Misaki Kinoshita<sup>3</sup>, Young-Ho Lee<sup>3</sup>, Shinji Hashimoto<sup>1</sup>, Masatoshi Saiki<sup>1</sup> (<sup>1</sup>Faculty of Engineering, Tokyo University of Science, Yamaguchi, <sup>2</sup>College of Liberal Arts and Sciences, Tokyo Medical and Dental University, <sup>3</sup>Institute for Protein Research, Osaka University)

**P-060 Mitocryptide-2: ligand recognition mechanisms of formyl-peptide receptor 1 and its homologue formyl-peptide receptor 2**

Kodai Nishino, Takayuki Marutani, Tatsuya Hattori, Yoshiaki Kiso, Hidehito Mukai (Laboratory of Peptide Science, Graduate School of Bio-Science, Nagahama Institute of Bio-Science and Technology)

**P-061 Structure-activity relationship of the G-CSF receptor binding peptides**

Ayana Oshima, Asako Yamaguchi-Nomoto, Ikuo Fujii (Department of Biological Science, Graduate School of Science, Osaka Prefecture University)

**P-062 Identification of dipeptidic inhibitors targeting DPP7 derived from multiple drug resistant bacteria *Stenotrophomonas maltophilia***

Yuki Sakurai<sup>1</sup>, Koushi Hidaka<sup>1,2</sup>, Anna Miyazaki<sup>1,2</sup>, Keiko Hojo<sup>1,2</sup>, Saori Roppongi<sup>3</sup>, Yasumitsu Sakamoto<sup>3</sup>, Yasuhiro Ito<sup>4</sup>, Yoshiyuki Suzuki<sup>4</sup>, Wataru Ogasawara<sup>4</sup>, Nobutada Tanaka<sup>5</sup>, Yuko Tsuda<sup>1,2</sup> (<sup>1</sup>Faculty of Pharmaceutical Sciences, Kobe Gakuin University, <sup>2</sup>Cooperative Research Center for Life Sciences, Kobe Gakuin University, <sup>3</sup>School of Pharmacy, Iwate Medical University, <sup>4</sup>Department of Bioengineering, Nagaoka University of Technology, <sup>5</sup>School of Pharmacy, Showa University)

- P-063 A helix-loop-helix peptide inhibiting intracellular p53-HDM2 interaction: a role of poly Arg in non-interacting surface of the N-terminal helix**  
Shunsuke Inaura, Hidekazu Kitada, Kazunori Zikihara, Daisuke Fujiwara, Ikuo Fujii (Department of Biological Science, Graduate School of Science, Osaka Prefecture University)
- P-064 Synthesis and structural investigation of cyclosporin A and cyclosporin O**  
Dongjae Lee, Sungjin Lee, Chin-ju Park, Jiwon Seo (Department of Chemistry, School of Physics and Chemistry, Gwangju Institute of Science and Technology)
- P-065 Development of anti-HER2 antibody mimetics with structurally constrained CDR peptides**  
Wanaporn Yimchuen<sup>1</sup>, Tetsuya Kadonosono<sup>1</sup>, Kyra See<sup>1</sup>, Tadaomi Furuta<sup>2</sup>, Takahiro Kuchimaru<sup>1</sup>, Shinae Kondoh<sup>1</sup> (<sup>1</sup>School of Life Science and Technology, Tokyo Institute of Technology, <sup>2</sup>Center for Biological Resources and Informatics, Tokyo Institute of Technology)
- P-066 Immunogenicity of a FAP2 peptide mimotope of *Fusobacterium nucleatum* and its use in an immunoassay-based diagnostics tool for colorectal cancer**  
Leonardo A. Guevarra Jr.<sup>1,4</sup>, Andrea Claudine F. Afable<sup>1</sup>, Patricia Joyce O. Belza<sup>1</sup>, Karen Joy S. Dy<sup>1</sup>, Scott Justin Q. Lee<sup>1</sup>, Teresita Ortin-Sy<sup>3</sup>, Pia Marie Albano<sup>2,4</sup> (<sup>1</sup>Department of Biochemistry, Faculty of Pharmacy, University of Santo Tomas, <sup>2</sup>Department of Biology, College of Science, University of Santo Tomas, <sup>3</sup>Benavidez Cancer Institute, University of Santo Tomas, <sup>4</sup>Research Center for Natural and Applied Sciences, University of Santo Tomas)
- P-067 Actions of orexin B on spontaneous inhibitory synaptic transmission in adult rat spinal superficial dorsal horn neurons**  
Chong Wang, Tsugumi Fujita, Nobuya Magori, Rika Suzuki, Fan Yang, Eiichi Kumamoto (Department of Physiology, Saga Medical School)
- P-068 Cellular effects of artificial ubiquitin ligases on cancer cells**  
Mayumi Sunagawa, Ayumi Yamashita, Kazuki Saito, Kazuhide Miyamoto (Pharmaceutical Sciences, Himeji Dokkyo University)
- P-069 Intracellular delivery of bioactive proteins using endosome destabilizing peptide L17E**  
Misao Akishiba<sup>1</sup>, Toshihide Takeuchi<sup>1</sup>, Yoshimasa Kawaguchi<sup>1</sup>, Kentarou Sakamoto, Ikuhiko Nakase<sup>2</sup>, Shiroh Futaki<sup>1</sup> (<sup>1</sup>Institute for Chemical Research, Kyoto University, <sup>2</sup>Nanoscience and Nanotechnology Research Center, Research Organization for the Twenty First Century, Osaka Prefecture University)
- P-070 Creation of high performance antibody drug alternatives harboring constrained CDR peptides**  
Tetsuya Kadonosono<sup>1</sup>, Yumi Ota<sup>1</sup>, Wanaporn Yimchuen<sup>1</sup>, Kyra See<sup>1</sup>, Tadaomi Furuta<sup>2</sup>, Takahiro Kuchimaru<sup>1</sup>, Shinae Kondoh<sup>1</sup> (<sup>1</sup>School of Life Science and Technology, Tokyo Institute of Technology, <sup>2</sup>Center for Biological Resources and Informatics, Tokyo Institute of Technology)
- P-071 Synthesis and biological evaluation of medium-chain alkyl sulfonododecaborate containing *p*-boronophenylalanine**  
Yoshihide Hattori<sup>1</sup>, Miki Ishimura<sup>1</sup>, Youichirou Ohta<sup>1</sup>, Hiroshi Takenaka<sup>1</sup>, Kouki Uehara<sup>2</sup>, Tomoyuki Asano<sup>2</sup>, Mitsunori Kirihata<sup>1</sup> (<sup>1</sup>Research Center of BNCT, Osaka Prefecture University, <sup>2</sup>Stella Pharma Co.)
- P-072 Lysine-specific demethylase 1 inhibitory activity of histone H3 peptides incorporating modified lysine 4**  
Taeko Kakizawa<sup>1</sup>, Yosuke Ota<sup>2</sup>, Yukihiko Itoh<sup>2</sup>, Takayoshi Suzuki<sup>2</sup> (<sup>1</sup>Department of Chemistry and Biochemistry, School of Advanced Science and Engineering, Waseda University, <sup>2</sup>Graduate School of Medical Science, Kyoto Prefectural University of Medicine)

- P-073 Novel antimicrobial/anti-inflammatory peptides designed from human LL-37 with therapeutic potential**  
Ganesan Rajasekaran<sup>1</sup>, Song Yub Shin<sup>1,2</sup> (<sup>1</sup>Department of Biomedical Science, Graduate School, Chosun University, <sup>2</sup>Department of Cellular & Molecular Medicine, School of Medicine, Chosun University)
- P-074 Cell selectivity and anti-inflammatory activity of the D-amino acid substituted derivatives of LL-37-derived short antimicrobial peptide KR-12-A5**  
Song Yub Shin (Department of Cellular & Molecular Medicine, School of Medicine, Chosun University)
- P-075 Antimicrobial activity of endosome destabilizing peptide L17E and some analogues**  
Naoki Tamemoto, Misao Akishiba, Kentarou Sakamoto, Jun Kawamoto, Tatsuo Kurihara, Shiroh Futaki (Institute for Chemical Research, Kyoto University)
- P-076 Discovery of novel peptide ligand for nucleolin (NCL) overexpressed cancer cell**  
Jae-hyun Kim, Kyeong-min Kim, Young-Joon Kim, Zee Yong Park, Jae Il Kim (Department of Life Science, Gwangju Institute of Science and Technology)
- P-077 Development of HER2-targeting small protein harboring a structurally constrained peptide**  
Yumi Ota<sup>1</sup>, Tetsuya Kadonosono<sup>1</sup>, Takahiro Kuchimaru<sup>1</sup>, Masumi Taki<sup>2</sup>, Yuji Ito<sup>3</sup>, Shinae Kondoh<sup>1</sup> (<sup>1</sup>School of Life Science and Technology, Tokyo Institute of Technology, <sup>2</sup>Department of Engineering Science, the Graduate School of Informatics and Engineering, the University of Electro-Communications (UEC), <sup>3</sup>Department of Chemistry and Bioscience, Graduate School of Science and Engineering, Kagoshima University)
- P-078 Btk kinase inhibitor study using 3D-QSAR and molecular dynamics simulations**  
Seung Joo Cho<sup>1,2</sup> (<sup>1</sup>Chosun University, <sup>2</sup>Department of Cellular and Molecular Medicine, College of Medicine, Chosun University)
- P-079 Structure-activity relationship study of MAP(Aib)-cRGD conjugates as carriers for siRNA delivery**  
Shun-ichi Wada, Anna Takesada, Eri Sogabe, Rieko Ohki, Aki Kawakita, Junsuke Hayashi, Hidehito Urata (Osaka University of Pharmaceutical Sciences)
- P-080 Cyclosporine A-loaded nano-matrix particles prepared with multi-inlet vortex mixer for inhalation**  
Hideyuki Sato<sup>1</sup>, Hiroki Suzuki<sup>1</sup>, Keisuke Yakushiji<sup>1</sup>, Jennifer Wong<sup>2</sup>, Yoshiki Seto<sup>1</sup>, Robert K. Prud'homme<sup>3</sup>, Hak-Kim Chan<sup>2</sup>, Satomi Onoue<sup>1</sup> (<sup>1</sup>Department of Pharmacokinetics and Pharmacodynamics, University of Shizuoka, <sup>2</sup>Advanced Drug Delivery Group, Faculty of Pharmacy, The University of Sydney, <sup>3</sup>Department of Chemical & Biological Engineering, Princeton University)
- P-081 Development of fluorescence-quenched substrate for discovering antibodies capable of hydrolyzing tau protein**  
Hiroaki Taguchi<sup>1</sup>, Yasuhiro Ishihara<sup>1</sup>, Yoshio Fujita<sup>1</sup>, Emi Hifumi<sup>2</sup>, Taizo Uda<sup>3,4</sup> (<sup>1</sup>Faculty of Pharmaceuticals Sciences, Suzuka University of Medical Science, <sup>2</sup>Research Promotion Institute, Oita University, <sup>3</sup>Faculty of Engineering, Oita University, <sup>4</sup>Institute of Systems, Information Technologies and Nanotechnologies)
- P-082 Identification of receptor molecules for mitocryptide-3, a novel neutrophil-activating peptide derived from mitochondrial transit sequence**  
Takayuki Marutani, Shinichiro Tamura, Kenta Nakashima, Kodai Nishino, Hiroki Morikawa, Tatsuya Hattori, Yoshiaki Kiso, Hidehito Mukai (Laboratory of Peptide Science, Graduate School of Bio-Science, Nagahama Institute of Bio-Science and Technology)



- P-083 Identification of laminin  $\alpha 5$  short arm peptides active for endothelial cell attachment and tube formation**  
Xiao Yang, Yumika Sugawara, Nozomi Harashima, Shogo Fujii, Kazuki Ikari, Jun Kumi, Fumihiko Katagiri, Kentaro Hozumi, Yamato Kikkawa, Motoyoshi Nomizu (Department of Clinical Biochemistry, School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)
- P-084 Novel water-soluble prodrug of  $\beta$ -secretase inhibitor as an anti-Alzheimer's disease drug**  
Yoshio Hamada, Kenji Usui (Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University)
- P-085 Lysosome-targeting drug delivery system using the H16 peptide-modified liposome**  
Taiki Hayashi, Tsuyoshi Kawano, Takashi Iwasaki (Graduate School of Sustainability Science, Tottori University)
- P-086 Construction of bispecific antibody by site-specific chemical conjugation with IgG-binding peptide**  
Satoshi Kishimoto, Abdor Rafique, Kanade Fujisaki, Nobuyuki Nagamizo, Dai-ichiro Kato, Yuji Ito (Department of Chemistry and Bioscience, Graduate School of Science and Engineering, Kagoshima University)
- P-087 Mitocryptide-1: investigation of pathophysiological roles of mitocryptide-1 utilizing its specific neutralizing monoclonal antibody**  
Hiroki Morikawa, Tatsuya Hattori, Yoshito Takamuro, Takayuki Marutani, Yoshiaki Kiso, Hidehito Mukai (Graduate School of Bio-Science, Nagahama Institute of Bio-Science and Technology)
- P-088 Diclofenac-loaded cross-linked polylysine for sustained-release with reduced gastric damage**  
Aiko Tabata, Tatsuki Hirano, Ayaka Daicho, Yoshiki Seto, Hideyuki Sato, Satomi Onoue (Department of Pharmacokinetics and Pharmacodynamics, School of Pharmaceutical Sciences, University of Shizuoka)
- P-089 Antibacterial mechanism of pleurocidin peptide via apoptosis-like death in *Escherichia coli***  
Lee Bin, Lee Dong Gun (School of Life Sciences, BK 21 Plus KNU Creative BioResearch Group, College of Natural Sciences, Kyungpook National University)
- P-090 A mechanism for the antibacterial effect of arenicin-1 on *Escherichia coli***  
Lee Heejeong, Lee Dong Gun (School of Life Sciences, BK 21 Plus KNU Creative BioResearch Group, College of Natural Sciences, Kyungpook National University)
- P-091 Rational design of KRAS-SOS1 interaction inhibitor using helix-loop-helix peptide scaffold**  
Kousuke Mihara<sup>1,2</sup>, Daisuke Fujiwara<sup>1</sup>, Ikuo Fujii<sup>1</sup> (<sup>1</sup>Department of Biological Science, Osaka Prefecture University, <sup>2</sup>Medicinal Chemistry Research Laboratory, Shionogi & Co., Ltd.)
- P-092 Identification of  $\alpha$ -dystroglycan binding sequence in the laminin  $\alpha 2$  chain LG4-5 module using peptide-chitosan matrix ELISA method**  
Guangrui Zhang, Jun Kumai, Kazuki Ikari, Xiao Yang, Yumika Sugawara, Fumihiko Katagiri, Kentaro Hozumi, Yamato Kikkawa, Motoyoshi Nomizu (School of Pharmacy, Tokyo University of Pharmacy and Life Sciences)
- P-093 Design and synthesis of hydrocarbon stapling peptide antagonists for relaxin family peptide receptor 3 (RXFP3)**  
Keiko Hojo<sup>1</sup>, Mika Izutsu<sup>1</sup>, Ross AD Bathgate<sup>2</sup>, K Johan Rosengren<sup>3</sup>, Koushi Hidaka<sup>1</sup>, Yuko Tsuda<sup>1</sup>, Mohammad A Hossain<sup>2,4</sup>, John D Wade<sup>1,4</sup> (<sup>1</sup>Faculty of Pharmaceutical Sciences, Kobe Gakuin

University, <sup>2</sup>Florey Neuroscience Institute and Mental Health, University of Melbourne, <sup>3</sup>School of Biomedical Sciences, University of Queensland, <sup>4</sup>School of Chemistry, University of Melbourne)

- P-094 Synthesis and characterization of radiobromine-labeled bioactive peptides for molecular imaging**  
Keiichi Yamada<sup>1</sup>, Shigeki Watanabe<sup>2</sup>, Ichiro Sasaki<sup>1,2</sup>, Hirofumi Hanaoka<sup>3</sup>, Noriko S. Ishioka<sup>2</sup> (<sup>1</sup>Division of Molecular Science, Gunma University, <sup>2</sup>Department of Radiation-applied Biology, National Institutes for Quantum and Radiological Science and Technology, <sup>3</sup>Graduate School of Medicine, Gunma University)
- P-095 Efficient cellular uptake of the EGFR juxtamembrane domain peptide and its effects on receptor activation**  
Ayaka Sugiyama<sup>1,2</sup>, Takeshi Sato<sup>3</sup>, Ikuhiko Nakase<sup>2</sup> (<sup>1</sup>College of Life, Environment, and Advanced Sciences, Osaka Prefecture University, <sup>2</sup>NanoSquare Research Institution, Osaka Prefecture University, <sup>3</sup>Division of Liberal Arts Sciences, Kyoto Pharmaceutical University)
- P-096 Construction of hydrocarbon stapled cellpenetrating peptides to deliver short RNAs**  
Soonsil Hyun<sup>1</sup>, Changjin Lee<sup>2</sup>, Yan Lee<sup>3</sup>, Jaehoon Yu<sup>1</sup> (<sup>1</sup>Department of Chemistry & Education, Seoul National University, <sup>2</sup>Hugel, Inc., <sup>3</sup>Department of Chemistry, Seoul National University)
- P-097 A question revisited; Do lysozyme have a correlated antimicrobial activity with its enzymatic activity against gram-negative bacteria?**  
Doyeon Jo, Soonsil Hyun, Jaehoon Yu (Department of Chemistry & Education, Seoul National University)
- P-098 Pyrrole-based small-molecule inhibitors targeting oocyte maturation**  
Pethaiah Gunasekaran, Jeong Kyu Bang (Division of Magnetic Resonance, Korea Basic Science Institute)
- P-099 Detection of E2 activities in cancer cells using an artificial E3 ligase**  
Ayumi Yamashita, Kazuki Saito, Kazuhide Miyamoto (Pharmaceutical Sciences, Himeji Dokkyo University)
- P-100 Cellular internalization mechanisms of all-hydrocarbon stapled peptides**  
Koki Sakagami, Shiroh Futaki (Institute for Chemical Research, Kyoto University)
- P-101 Approach to control cell movement by changing membrane tension**  
Toshihiro Masuda, Tomo Murayama, Shiroh Futaki (Institute for Chemical Research, Kyoto University)
- P-102 Novel macropinocytosis-inducing cell penetrating peptides**  
Jan Vincent V. Arafiles, Kenichi Kawano, Shiroh Futaki (Institute for Chemical Research, Kyoto University)
- P-103 A stapled  $\alpha$ -helix peptide library displayed on phage for screening of peptide ligands binding to galectin-3**  
Teerapat Anananuchatkul<sup>1</sup>, Iou Ven Chang<sup>2</sup>, Hiroshi Tsutsumi<sup>1</sup>, Hisakazu Mihara<sup>1</sup> (<sup>1</sup>Department of Bioengineering, School of Life Science and Technology, Tokyo Institute of Technology, <sup>2</sup>Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology)
- P-104 Structural-based design of a monosaccharide-modified  $\alpha$ -helix peptide library for selective ligands to carbohydrate-binding proteins by a phage display method**  
Iou Ven Chang<sup>1</sup>, Hisakazu Mihara<sup>1,2</sup>, Hiroshi Tsutsumi<sup>1,2</sup> (<sup>1</sup>Department of Bioengineering, Graduate School of Bioscience and Biotechnology, Tokyo Institute of Technology, <sup>2</sup>Life Science and Technology, Tokyo Institute of Technology)

- P-105 Development of artificial bleomycin analogue: Pentadentate carboxamide ligand having spermine moiety for DNA binding**  
Akiko Nomura<sup>1</sup>, Ryosuke Sakai<sup>2</sup>, Yuji Iwamoto<sup>2</sup>, Masahito Kodera<sup>2</sup>, Yutaka Hitomi<sup>2</sup> (<sup>1</sup>Research Center for Nano-Bioscience Research, Doshisha University, <sup>2</sup>Department of Applied Chemistry, Graduate School of Science and Engineering, Doshisha University)
- P-106 Development of rat heme oxygenase-1 based gene encoded heme probe for intracellular heme detection**  
Junichi Taira, Otomi Nakashima, Hideyuki Komatsu, Hiroshi Sakamoto (Department of Bioscience and Bioinformatics, Graduate School of Computer Science and Systems Engineering, Kyushu Institute of Technology)
- P-107 Substrate recognition of L-type amino acid transporter 3 (LAT3)**  
Toru Oba<sup>1</sup>, Rino Iwakami<sup>1</sup>, Kota Miyata<sup>1</sup>, Promsuk Jutabha<sup>2</sup>, Naohiko Anzai<sup>2,3</sup> (<sup>1</sup>Department of Material and Environmental Chemistry, Graduate school of Engineering, Utsunomiya University, <sup>2</sup>Department of Pharmacology and Toxicology, Dokkyo Medical University School of Medicine, <sup>3</sup>Department of Pharmacology, Chiba University Graduate School of Medicine)
- P-108 Development and evaluation of cell-penetrating peptides having cyclic disubstituted amino acids**  
Takuma Kato<sup>1,2</sup>, Makoto Oba<sup>1</sup>, Masakazu Tanaka<sup>1</sup> (<sup>1</sup>Graduate School of Biomedical Sciences, Nagasaki University, <sup>2</sup>Osaka University of Pharmaceutical Sciences)
- P-109 Identification of plasminogen-binding and -activation sequences in *Plasmodium falciparum* enolase: Implication for the parasite invasion mechanism into the host cell**  
Hiroyuki Oku, Nana Isomoto, Yudai Kimoto, Shinya Kitamura, Keiichi Yamada, Kazuo Shinozuka (Division of Molecular Science, Graduate School of Science and Engineering, Gunma University)
- P-110 Epigenetic analysis of histone H2A-H2B dimer powered by protein chemical synthesis**  
Gosuke Hayashi<sup>1</sup>, Takuma Sueoka<sup>1</sup>, Akimitsu Okamoto<sup>1,2</sup> (<sup>1</sup>Department of Chemistry and Biotechnology, The University of Tokyo, <sup>2</sup>RCAST, The University of Tokyo)
- P-111 *In vitro* selection of macrocyclic peptides binding covalently to a target protein**  
Naoya Ozawa, Yuki Goto, Hiroaki Suga (Department of Chemistry, Graduate School of Science, The University of Tokyo)
- P-112 Antioxidative activities of caffeoyl-prolyl-histidyl-Xaa tripeptides**  
Hyeri Jung<sup>1</sup>, Seojung Kim<sup>1</sup>, Jaehi Kim<sup>2</sup>, Dong-Sik Shin<sup>1</sup>, Yoon-Sik Lee<sup>2</sup> (<sup>1</sup>Department of Chemical and Biological Engineering, College of Engineering, Sookmyung Women's University, <sup>2</sup>School of Chemical and Biological Engineering, College of Engineering, Seoul National University)
- P-113 Cell micropatterning on hydrogel for single cell protease detection**  
Da-Young Youn, Kyoung Eun Park, Dong-Sik Shin (Department of Chemical & Biological Engineering and Department of Medical & Pharmaceutical Sciences, Sookmyung Women's University)
- P-114 Development of novel amyloid  $\beta$  peptide-binding compounds based on the alkene-to-amide isosteric switch strategy**  
Tomoyuki Imai, Kohei Sato, Nobuyuki Mase, Tetsuo Narumi (Graduate School of Integrated Science and Technology, Shizuoka University)
- P-115 Synthesis of VEGF-targeting helix-loop-helix peptide-monomethyl auristatin E conjugate**  
Haruna Yamashita, Masakata Michigami, Ikuo Fujii (Department of Biological Science, Graduate School of Science, Osaka Prefecture University)
- P-116 A versatile method for modifying *in vitro* displayed macrocyclic peptide**

Shiori Umemoto, Seino A. Jongkees, Hiroaki Suga (Graduate School of Science, University of Tokyo)

**P-117 Screening of peptide tag for selective protein labeling with zinc complex and its application to fluorescence bioimaging**

Nobutaka Kurashige<sup>1</sup>, Hirokazu Fuchida<sup>1</sup>, Shigekazu Tabata<sup>2</sup>, Shohei Uchinomiya<sup>1</sup>, Akio Ojida<sup>1</sup>  
(<sup>1</sup>Graduate School of Pharmaceutical Sciences, Kyushu University, <sup>2</sup>Institute of Science and Technology Austria)

**P-118 Oral administration of geniposidic acid may induce secretion of atrial natriuretic peptide in spontaneously hypertensive rats**

Shohei Yamaguchi<sup>1</sup>, Shingo Hosoo<sup>2</sup>, Masahiro Koyama<sup>1</sup>, Ryo Yamazaki<sup>1</sup>, Tetsuya Hirata<sup>2</sup>, Yasuyo Yamaguchi<sup>2</sup>, Hiroo Yamasaki<sup>2</sup>, Naoto Minamino<sup>3</sup>, Keiji Wada<sup>4</sup>, Sansei Nishibe<sup>4</sup>, Kozo Nakamura<sup>1</sup>  
(<sup>1</sup>Department of Bioscience and Biotechnology, Faculty of Agriculture, Shinshu University, <sup>2</sup>R&D Center, Kobayashi Pharmaceutical Co., Ltd, <sup>3</sup>Omics Research Center, National Cerebral and Cardiovascular Center, <sup>4</sup>Department of Pharmaceutical Sciences, Health Sciences University of Hokkaido)

**P-119 Fish-derived collagen peptides improve maintenance of cultured human dermal fibroblasts**

Masayo Kimura<sup>1</sup>, Ikurou Tanaka<sup>1</sup>, Tsutomu Nozaki<sup>1</sup>, Ryo Akimoto<sup>1</sup>, Ken-o Ishihara<sup>1</sup>, Hiroyuki Fujita<sup>2</sup>, Toshio Nishiyama<sup>3</sup> (<sup>1</sup>BHN Co., Ltd., <sup>2</sup>Faculty of Bioenvironmental Science, Kyoto Gakuen University, <sup>3</sup>Scleroprotein Research Institute, Faculty of Agriculture, Tokyo University of Agriculture and Technology)

**P-120 Identifying antibacterial target(s) of the repositioning drugs by *in vivo* mutagenesis**

Yunhwa Choi<sup>1</sup>, Changkyu Yoon<sup>2</sup>, Yeongjae Seok<sup>2</sup>, Jaehoon Yu<sup>1</sup> (<sup>1</sup>Department of Chemistry & Education, Seoul National University, <sup>2</sup>Department of Biological Science, Seoul National University)

**P-121 Complexation of nucleic acids and peptides tethering a nuclear localization signal for intracellular DNA delivery**

Shunsuke Kataoka<sup>1</sup>, Takahito Imai<sup>1</sup>, Kenji Usui<sup>2</sup>, Kin-ya Tomizaki<sup>1</sup> (<sup>1</sup>Department of Materials Chemistry, Ryukoku University, <sup>2</sup>Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University)

**P-122 Selective recovery of gold from mixtures of noble metal ions with aromatic ring-containing peptides**

Takuya Okamoto, Takahito Imai, Kin-ya Tomizaki (Department of Materials Chemistry, Ryukoku University)

**P-123 Synthesis of titania nanostructures by silica etching of silica-peptide complex**

Makoto Kasuga, Takahito Imai, Kin-ya Tomizaki (Department of Materials Chemistry, Ryukoku University)

**P-124 Cell adhesion onto hydroxyapatite surface modified with collagen model peptides with a phosphate group and cell recognition sequences.**

Takumi Yamamoto, Takahito Imai, Kin-ya Tomizaki (Department of Materials Chemistry, Ryukoku University)

**P-125 Synthesis of fatty acid containing peptides and their use for gold nanocrystal synthesis as templates**

Naoyuki Tsukamoto, Takahito Imai, Kin-ya Tomizaki (Department of Materials Chemistry, Ryukoku University)

**P-126 Synthesis of noble metal nanoparticles by peptides containing various aromatic side chains under light irradiation conditions**

Takahiro Uchiyama, Takahito Imai, Kin-ya Tomizaki (Department of Materials Chemistry, Ryukoku University)

**P-127 Design and synthesis of novel membrane lytic peptides for drug release tool from liposomal vehicle**

Ayumi Kashiwada, Masaki Mizuno, Nami Aoyagi (Graduate School of Industrial Technology, Nihon University)

**P-128 Investigation of chain length of thermosensitive polyproline**

Makoto Kitamura<sup>1</sup>, Mitsuhiro Yuge<sup>2</sup>, Sachiro Kakinoki<sup>3</sup>, Yoshiaki Hirano<sup>3</sup>, Masahito Oka<sup>4</sup> (<sup>1</sup>National Institute of Technology, Nara College, <sup>2</sup>Mitsuboshi Belting LTD., <sup>3</sup>Department of Chemistry and Materials Engineering, Faculty of Chemistry, Materials and Bioengineering, Kansai University, <sup>4</sup>Professor Emeritus, Osaka Prefecture University)

**P-129 Fabrication of titanium-cell interface by peptide nanofibers with sequences for titanium binding and cell recognition**

Koji Kawamoto<sup>1</sup>, Masayuki Yamasaki<sup>2</sup>, Takahito Imai<sup>1</sup>, Kin-ya Tomizaki<sup>1</sup> (<sup>1</sup>Department of Materials Chemistry, Ryukoku University, <sup>2</sup>Department of Food Sciences and Human Nutrition, Ryukoku University)

**P-130 Preparation and dielectric properties of peptide nanotube organization controlling macro-dipole by using bis-cyclic  $\beta$  peptide**

Kazushi Takagaki, Shunsaku Kimura (Graduate School of Engineering, Kyoto University)

**P-131 Regular alignment of chromophores at side chains along peptide nanotube self-assembling cyclic  $\alpha$ - and  $\beta$ -peptide**

Yuki Tabata, Shunsaku Kimura (Department of Material Chemistry, Graduate School of Engineering, Kyoto University)

**P-132 Multifunctional mesoporous silica nanoparticles for boron neutron capture therapy**

Vincent Jallet<sup>1</sup>, Guillaume Varès<sup>1</sup>, Cédric Rentier<sup>2</sup>, Yoshio Hayashi<sup>2</sup> (<sup>1</sup>Advanced Medical Instrumentation Unit, Okinawa Institute of Science and Technology, <sup>2</sup>Department of Medicinal Chemistry, Tokyo University of Pharmacy and Life Sciences)

**P-133 Tunable formation of Lipid-peptide nanodiscs toward a novel liposome engineering**

Hiroataka Hori<sup>1</sup>, Daizaburo Hiyama<sup>1</sup>, Kazunari Matsumura<sup>2</sup> (<sup>1</sup>Graduate School of Engineering, Shibaura Institute of Technology, <sup>2</sup>Faculty of Engineering, Shibaura Institute of Technology)

**P-134 Creation of photoresponsive artificial viral capsid bearing azobenzene**

Seiya Fujita, Kazunori Matsuura (Department of Chemistry and Biotechnology, Graduate School of Engineering, Tottori University)

**P-135 Sign tuning of circularly polarized luminescence (CPL) in bipyrenyl peptides**

Yuki Mimura<sup>1</sup>, Sayaka Kitamura<sup>1</sup>, Motohiro Shizuma<sup>2</sup>, Mizuki Kitamatsu<sup>1</sup>, Michiya Fujiki<sup>3</sup>, Yoshitane Imai<sup>1</sup> (<sup>1</sup>Department of Applied Chemistry, Faculty of Science and Engineering, Kindai University, <sup>2</sup>Department of Biochemistry, Osaka Research Institute of Industrial Science and Technology, <sup>3</sup>Graduate School of Materials Science, Nara Institute of School and Technology)

**P-136 A novel covalently-labeling method of IgG by using protein A-mimic peptide**

Arisa Himeno, Yosuke Nakashima, Ryo Yatamaru, Shun Hashimoto, Md. Kamrul Hasan Khan, Daiichiro Kato, Yuji Ito (Department of Chemistry and Bioscience, Graduate School of Science and Engineering, Kagoshima University)

**P-137 Switch of DNA structure formation using PNA peptides with a protease substrate sequence**

Shungo Sakashita, Arisa Okada, Masayuki Shimooka, Yoshio Hamada, Kenji Usui (Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University)

**P-138 Design of  $\beta$ -hairpin peptides incorporating RGDS sequence**

Ryosuke Yokokawa<sup>1</sup>, Ayaki Jo<sup>1</sup>, Sachiro Kakinoki<sup>1,2</sup>, Yoshiaki Hirano<sup>1,2</sup> (<sup>1</sup>Faculty of Chemistry, Materials and Bioengineering, Kansai University, <sup>2</sup>Organization for Research and Development of Innovative Science and Technology (ORDIST), Kansai University)

**P-139 Producing nanomaterials by digestion of amyloid beta peptide using protease**

Shin-ichiro Yokota<sup>1</sup>, Yasumasa Mashimo<sup>2</sup>, Eita Tatsumi<sup>1</sup>, Taishi Yamagihara<sup>1</sup>, Yoshio Hamada<sup>1</sup>, Rui Kawatahara<sup>3</sup>, Youji Harada<sup>3</sup>, Masayosu Mie<sup>2</sup>, Eiry Kobatake<sup>2</sup>, Kenji Usui<sup>1</sup> (<sup>1</sup>Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University, <sup>2</sup>Department of Life Science and Technology, School of Life Science and Technology, Tokyo Institute of Technology, <sup>3</sup>Clean Chemical Co., Ltd)

**P-140 Functionalization of biomedical polymers using the poly(propylene oxide)-binding peptides as a molecular tool**

Toshiki Sawada, Misaki Takizawa, Hiroki Fukuta, Takeshi Serizawa (Department of Chemical Science and Engineering, Tokyo Institute of Technology)

**P-141 Antimicrobial and cell-membrane-penetrating activities of a histone H2B-derived fragment peptide**

Nanako Yamanaka, Shawichi Iwamuro (Department of Biology, Faculty of Science, Toho University)

**P-142 Homodimer function of human nuclear receptor ERR $\alpha$  evidenced using  $\alpha$ -helix peptides in the dimer interface**

Xiaohui Liu<sup>1</sup>, Hiroyuki Nakagawa<sup>2</sup>, Makiko Sugiyama<sup>1</sup>, Ayami Matsushima<sup>1</sup>, Miki Shimohigashi<sup>2</sup>, Yasuyuki Shimohigashi<sup>3</sup> (<sup>1</sup>Department of Chemistry, Faculty and Graduate School of Science, Kyushu University, <sup>2</sup>Department of Earth System of Science, Faculty of Science, Fukuoka University, <sup>3</sup>Risk Science Project Laboratory, Kyushu University)

**P-143 Peptide nucleic acid possessing PreQ<sub>1</sub> as a cationic analogue of guanine**

Toru Sugiyama<sup>1</sup>, Misaki Kohara<sup>1</sup>, Keiko Kuwata<sup>2</sup>, Yasutada Imamura<sup>3</sup>, Yosuke Demizu<sup>4</sup>, Masaaki Kurihara<sup>5</sup>, Atsushi Kittaka<sup>1</sup> (<sup>1</sup>Faculty of Pharmaceutical Sciences, Teikyo University, <sup>2</sup>Institute of Transformative Bio-Molecules (WPI-ITbM), Nagoya University, <sup>3</sup>Faculty of Engineering, Kogakuin University, <sup>4</sup>Division of Organic Chemistry, National Institute of Health Sciences, Ministry of Health and Welfare, <sup>5</sup>School of Pharmacy, International University of Health and Welfare)

**P-144 A screen for Rab family proteins modulating secretion of INS-35, one of the *C. elegans* insulin-like peptides**

Masumi Ohnishi, Takashi Iwasaki, Tsuyoshi Kawano (Department of Life and Bioresource Sciences, Graduate School of Agriculture, Tottori University)

**P-145 Preparation of pigment-peptide complexes that partially lack bacteriochlorophyll *a* pigments from LH2 proteins of purple photosynthetic bacteria**

Yoshitaka Saga<sup>1,2</sup>, Yoshitaka Fukuda<sup>1</sup> (<sup>1</sup>Faculty of Science and Engineering, Kindai University, <sup>2</sup>PRESTO, JST)

**P-146 Mutual co-work between human nuclear receptor ER $\alpha$  and ERR $\gamma$  requires their homodimerization**

Xiaohui Liu<sup>1</sup>, Miki Shimohigashi<sup>2</sup>, Makiko Sugiyama<sup>3</sup>, Ayami Matsushima<sup>1</sup>, Yasuyuki Shimohigashi<sup>4</sup> (<sup>1</sup>Department of Chemistry, Faculty of Science, Kyushu University, <sup>2</sup>Department of Earth System of

Science, Faculty of Science, Fukuoka University, <sup>3</sup>Department of Chemistry, Graduate School of Science, Kyushu University, <sup>4</sup>Risk Science Project Laboratory, Kyushu University)

- P-147 Peptide selection against reactive small molecular probes for protein imaging and opto-genetics by using the diverse screening system**  
Mizuki Yamamoto<sup>1</sup>, Hiroki Suzuki<sup>1</sup>, Tomohiro Iwabuchi<sup>1</sup>, Takashi Kawakami<sup>1,2</sup> (<sup>1</sup>Department of Biotechnology, Faculty of Life and Environmental Sciences, University of Yamanashi, <sup>2</sup>JST, PRESTO)
- P-148 Effects of skipjack tuna-derived elastin peptide on ligament healing**  
Eri Shiratsuchi<sup>1</sup>, Masaki Hirukawa<sup>2</sup>, Masahiro Hasegawa<sup>3</sup>, Keiichi Miyamoto<sup>2</sup>, Michio Yamada<sup>1</sup> (<sup>1</sup>Research & Development division, Hayashikane Sangyo Co., Ltd., <sup>2</sup>Department of Chemistry for Materials, Faculty of Engineering, Mie University, <sup>3</sup>Graduate School of Medicine, Mie University)
- P-149 NPR-15, one of the *C. elegans* neuropeptide receptors, regulates larval development**  
Kenjiro Matsushita, Tomohiro Bito, Takashi Iwasaki, Tsuyoshi Kawano (Graduate School of Sustainability Science, Tottori University)
- P-150 Synthesis of sugar conjugated palladium or platinum complexes and their inhibitory abilities on the interaction of phosphorylated CUB domain-containing protein-1 with protein kinase c  $\delta$**   
Akihiro Nomoto<sup>1</sup>, Nozomi Sakamoto<sup>1</sup>, Ryuichi Sakai<sup>2</sup>, Hiromi Kataoka<sup>3</sup>, Shigenobu Yano<sup>4</sup>, Akiya Ogawa<sup>1</sup> (<sup>1</sup>Graduate School of Engineering, Osaka Prefecture University, <sup>2</sup>Division of Biochemistry, Kitasato University School of Medicine, <sup>3</sup>Graduate School of Medical Sciences, Nagoya City University, <sup>4</sup>KYOUSEI Science Center, Nara Women's University)
- P-151 Structural analyses of a linker region of the amyloid precursor protein**  
Mizuho Imamura<sup>1</sup>, Shingo Kanemura<sup>2</sup>, Masaki Okumura<sup>2</sup>, Shigeru Shimamoto<sup>1</sup>, Yuji Hidaka<sup>1</sup> (<sup>1</sup>Graduate School of Science and Engineering Research, Kindai University, <sup>2</sup>Frontier Research Institute for Interdisciplinary Sciences, Tohoku University)
- P-152 Regulation of disulfide-coupled folding of a de novo designed protein**  
Saya Nishihara, Kosuke Toyama, Kenta Mori, Shigeru Shimamoto, Yuji Hidaka (Graduate School of Science and Engineering Research, Kindai University)
- P-153 Molecular evolution of L-PGDS: substrate recognition mechanism of medaka L-PGDS**  
Kimi Torii<sup>1</sup>, Takahiro Maruno<sup>2</sup>, Yuji Kobayashi<sup>2</sup>, Yuji Hidaka<sup>1</sup>, Shigeru Shimamoto<sup>1</sup> (<sup>1</sup>Graduate School of Science and Engineering Research, Kindai University, <sup>2</sup>Graduate School of Engineering, Osaka University)
- P-154 Development of a solid-phase assisted disulfide ligation for the synthesis of peptide-drug conjugates**  
Kyohei Muguruma, Takuya Shirasaka, Daichi Akiyama, Akihiro Taguchi, Kentaro Takayama, Atsuhiko Taniguchi, Yoshio Hayashi (Department of Medicinal Chemistry, Tokyo University of Pharmacy and Life Sciences)
- P-155 Development of high resolution separation capillary column for peptides and proteins**  
Hiroshi Kobayashi, Mayu Sukegawa, Hiroo Wada (Shinwa Chemical Industries, Ltd.)
- P-156 Assay development for the determination of residual solvents in peptide drugs by ion chromatography**  
Miki Ohno, Ryosuke Yoshinaga, Hiromasa Sugiura, Yoshitaka Taniguchi (CMC Analysis Laboratory, Toray Research Center, Inc.)
- P-157 Site-selective dimerization of chymotrypsin using diphenyl phosphonate derivatives**  
Takahiro Hatakeyama<sup>1</sup>, Masato Koga<sup>1</sup>, Takuya Kumakura<sup>1</sup>, Takuma Hayakawa<sup>1</sup>, Hirofumi Kuroda<sup>2</sup>, Yoshikazu Horino<sup>3</sup>, Hiroshi Oyama<sup>4</sup>, Jun-ichi Sagara<sup>1</sup>, Shin Ono<sup>1</sup> (<sup>1</sup>Genome Biotechnology Laboratory,

Kanazawa Institute of Technology, <sup>2</sup>Department of General Education, Ishikawa National College of Technology, <sup>3</sup>Graduate School of Science and Engineering, University of Toyama, <sup>4</sup>Faculty of Science and Engineering, Setsunan University)

**P-158 Disulfide-coupled folding of pro-uroguanylin on molecular evolution**

Kenta Mori, Kosuke Toyama, Saya Nishihara, Shigeru Shimamoto, Yuji Hidaka (Graduate School of Science and Engineering Research, Kindai University)

**P-159 Proteomic and transcriptomic analyses of left ventricles in human dilated cardiomyopathy for identification of novel diagnostic biomarkers**

Mitsuhiro Nishigori<sup>1</sup>, Sayaka Muto<sup>1</sup>, Osamu Seguchi<sup>2</sup>, Norihide Fukushima<sup>2</sup>, Yoshihiko Ikeda<sup>3</sup>, Hatsue Ishibashi-Ueda<sup>3</sup>, Naoto Minamino<sup>1</sup> (<sup>1</sup>Omics Research Center, National Cerebral and Cardiovascular Center, <sup>2</sup>Department of Transplantation, National Cerebral and Cardiovascular Center Hospital, <sup>3</sup>Department of Pathology, National Cerebral and Cardiovascular Center Hospital)

**P-160 Construction of modified skin sensitization assay systems using peptidyl microbeads**

Kenji Usui<sup>1</sup>, Hiroshi Miyazaki<sup>2</sup>, Yuuki Minamino<sup>1</sup>, Hideaki Mekata<sup>3</sup>, Masayuki Takaishi<sup>3</sup>, Hidefumi Ikeda<sup>3</sup>, Kunihiko Yamashita, Yoshio Hamada (<sup>1</sup>Faculty of Frontiers of Innovative Research in Science and Technology (FIRST), Konan University, <sup>2</sup>Daicel Corp., <sup>3</sup>Mandom Corp.)

**P-161 Novel dual-pore bead and the ultrahigh-throughput for peptide purification**

Riichi Miyamoto<sup>1,2</sup>, Daming Gao<sup>2</sup>, Naohiro Tomari<sup>3</sup>, Yoshihiro Yamamoto<sup>3</sup>, Takashi Ohtani<sup>4</sup>, Hong-zhi Bai<sup>1</sup>, Kazuki Nakanishi<sup>2</sup> (<sup>1</sup>SnG Inc., <sup>2</sup>Graduate School of Science, Kyoto University, <sup>3</sup>Kyoto Municipal Institute of Industrial Technology and Culture, <sup>4</sup>Hamari Chemicals, Ltd.)