Poster Presentations

Poster Session (10:00~12:00, Thursday, November 8)
Core time: Odd number (10:00-11:00), Even number (11:00-12:00)

01. Cell Culture Engineering

P-1 **The Long-term Perfusion Cell Culture Using Hollow Fiber Membrane with High Protein Permeability**
Shota Funakubo, Noriko Suzuki, Chihiro Kato, Tomoyuki Miyabayashi, Makiko Hattori
Asahi Kasei Medical Co., Ltd., Japan

P-2 **Evaluation of Host Cell Lines for Manufacturing Monoclonal Antibody in CHO Cells**
Saho Takeuchi, Yoshimi Nakano, Azusa Inaba, Atsushi Inoue, Shunsuke Ohira, Akira Egashira
Astellas Pharma Inc., Japan

P-3 **Immortalized Human Derived Corneal Epithermal Cells with the Expression of Cell Cycle Regulators, New Material for the in vitro Ocular Toxicity Testing**
Ryo Goko, Kohei Takahashi, Takahiro Eitsuka, Eriko Sugano, Hiroshi Tomita, Tohru Kiyono, Tomokazu Fukuda
Iwate University, Japan

P-4 **The Investigation and the Solution for the Decrease of Cu Concentration in In-house Feed Media Prepared in Manufacturing**
Hiroyuki Kenmoku, Ippei Takeuchi, Shunsuke Ohira, Akira Egashira
Astellas Pharma Inc., Japan

P-5 **Targeted scFv-Fc Antibody Gene Integration into CHO Cell Genome Using Minicircle DNA Vectors**
Yoshinori Kawabe, Xue Wang, Takeshi Hada, Akio Kuno, Akira Ito, Masamichi Kamihira
Kyushu University, Japan

P-6 **Immortalization of Human Follicle Dermal Papilla Cells by Expression of Mutant CDK 4, Cyclin D and Telomerase with Intact Chromosome Condition**
Kohei Takahashi, Ryo Goko, Takahiro Eitsuka, Tohru Kiyono, Tomokazu Fukuda
Iwate University, Japan

P-7 **An Evaluation of Fed-batch Process Combined with Perfusion System Comparing to Traditional Fed-batch Process**
Yukito Kobayashi, Takuya Kikuchi, Nobumasa Takao, Hiroyuki Kenmoku, Shunsuke Ohira, Akira Egashira
Astellas Pharma Inc., Japan

P-8 **3-Dimethylsulfoniopropionate Enhances The Mitochondria Activity and Cell Survival of Serum-Free Cultured CHO-DP12**
Shoma Nishiyori, Akiko Ogawa, Kaoru Nishiura
National Institute of Technology, Suzuka College, Japan

P-9	**Generation of Genetically Engineered Hepatoma Cell Lines with Heat-Inducible High Liver Functions** Hiroyuki Kitano, Yuki Nagae, Manuel Souvervielle, Yoshinori Kawabe, Akira Ito, Masamichi Kamihira *Kyushu University, Japan*
P-10	**CRISPR-Mediated Targeted Knock-in into the CHO Cell Genome** Mai Murakami, Yoshinori Kawabe, Akira Ito, Masamichi Kamihira *Kyushu University, Japan*
P-11	**Case Study for the Establishment of Scale Down Model in Cell Culture: The Elutes from Stainless Steel Vessels Changed the Character of Media** Ippei Takeuchi, Hiroyuki Kenmoku, Shunsuke Ohira, Akira Egashira *Astellas Pharma Inc., Japan*
P-12	**Extracellular Glycosylation for Therapeutic Antibody Production with Improved Glycoforms** Masayoshi Onitsuka, Atsuko Shimazu, Hiroe Amou *Tokushima University, Japan*
P-13	**Platform Based Strategies that Deliver Reliable Continuous Biomanufacturing Processes** Tatsuya Matsuura, Leon Phillip Pybus, Christopher Knowles, Fay Saunders, Takeshi Yamamoto, Yoichi Nagai, Ryuichi Katsumoto, Kousuke Kuroda, Nobuyuki Haraguchi, Yasuhiro Aiki, Shinichi Nakai, Junichi Kori, Yuya Watanabe, Tsukasa Ishihara, Hiroki Nishikawa, Masayuki Ezumi, Naoto Takahashi, Hiroshi Sakuyama *Fujifilm Corporation, Japan*
P-14	**Analysis of Intracellular Secretion Processes by Citrine Fusion IgG Aiming to Establish High Producer CHO Cells** Kohei Kaneyoshi, Kouki Kuroda, Noriko Yamano, Yuichi Koga, Keiji Uchiyama, Takeshi Omasa *Osaka University, Japan*
P-15	**Technical Challenges in Scaling Up a Perfusion Culture** Shinichi Nakai, Yoichi Nagai, Ryuichi Katsumoto, Kousuke Kuroda, Nobuyuki Haraguchi, Yasuhiro Aiki, Takeshi Yamamoto, Junichi Kori, Yuya Watanabe, Tsukasa Ishihara, Hiroki Nishikawa, Tatsuya Matsuura, Masayuki Ezumi, Naoto Takahashi, Hiroshi Sakuyama *Fujifilm Corporation, Japan*
P-16	**Production of Antibody Fab Fragment Using 2A Peptide in Insect Cells** Yu Mizote, Kyoko Masumi-Koizumi, Tomohisa Katsuda, Hideki Yamaji *Kobe University, Japan*
P-17	**Production of Influenza Virus-like Particles in Stably Transformed Insect Cells** Takuya Matsuda, Toshikazu Tanijima, Kyoko Masumi-Koizumi, Tomohisa Katsuda, Hideki Yamaji *Kobe University, Japan*

P-18 **Evaluation of the CEL-BIC™ Bioreactor System on Physical and Biological Performance for Animal Cell Culture**
Hyunwoo Kim, Hyanghee Cho, Jeonghwan Kim, Duk Jae Oh
Sejong University, Korea

P-19 **Development of Cell Selection System Using Osmoprotective Genes in Recombinant Mammalian Cells**
Jungeun Heo, Duk Jae Oh
Sejong University, Korea

P-20 **Enhanced Productivity of Recombinant Human Interferon-beta in Mammalian Cells through Signal Peptide Modification**
Sulki Lee, Jae Myung Jeong, Duk Jae Oh
Sejong University, Korea

P-21 **Mixing Performance of the Orbital-Shaking Mixer and Its Application to Cell Culture**
Shota Ito, Tomohiro Tokura, Hiroyuki Matsuda
Fujimori Kogyo Co.,Ltd., Japan

P-22 **Evaluation of Microcarrier Cultures for Expansion of Adherent Cells in a Single-Use Bioreactor System, CEL-BIC™**
Seohyun Park, Duk Jae Oh
Sejong University, Korea

P-23 **Development and Evaluation of the Single-use Multi Cell Culture System with Control Functions for Dissolved Oxygen, pH and Temperature**
Seung Hyun Wang, Beom Seok Park, Duk Jae Oh, Jeong A Shin, Dong Hoon Kim, Yun Kyoung Bang, Doo Hyun Kim
Sejong University, Korea

P-24 **Effects of Electrical Stimulation on Hair follicle Dermal Papilla Cells for Hair regeneration**
Lei Yan, Tatsuto Kageyama, Binbin Zhang, Junji Fukuda
Yokohama National University, Japan

P-25 **Quantitative Analysis of Secretion Process in Recombinant CHO Cells Producing "Difficult-to-express" IgG**
Kouki Kuroda, Kohei Kaneyoshi, Noriko Yamano, Yuichi Koga, Takeshi Omasa
Osaka University, Japan

P-26 **Protective Effect of Sericin Peptide on Mammalian Cell Survival**
Satoshi Terada, Satoshi Hosomi, Kyohei Kuriyama, Ryoma Hirobe, Kohei Kurebayashi, Kosuke Ishida, Masahiro Sasaki, Jun Takahashi
University of Fukui, Japan

P-27 **spERt™ Technology Facilitates ER Targeting of mRNAs and Close Contacts between ER and Mitochondria**
Tomonori Ueno, Reiko Ohsawa, Yoshiko Yoshioka, Yuko Ushiki-Kaku, Yuki Taga, Kiyoko Ogawa-Goto
Nippi, Incorporated, Japan

P-28 **Re-oscillation of Clock Gene *Per2* Expression by Glucose Addition in Rat MSC-like Cells**
Eri Fukaura, Kento Kiriaki, Masashi Fujiwara, Shin-ya Nishide, Sato Honma, Ken-ichi Honma, Mutsumi Takagi
Hokkaido University, Japan

P-29 **Evaluation of Function and Activity of Mutant p53 in *Cricetulus griseus* Cell Lines**
Christopher Quach, Jana Frank, Noriko Yamano, Yuichi Koga, Takeshi Omasa
Osaka University, Japan

02. Production of Biologicals

P-30 **Filter Area Prediction for Cell Culture Clarification Process**
Yusuke Tomioka, Miki Yoshida, Takao Ito
Merck Ltd., Japan

P-31 **Evaluation of Single-use Centrifuge for Biologics Manufacturing**
Kosuke Takenaka
Takeda Pharmaceutical Company Ltd., Japan

P-32 **Continuous in-line Virus Inactivation**
Takao Ito, Christopher Gillespie
Merck Ltd., Japan

P-33 **Case Study of Ball Room Concept for MAb Manufacturing Facility**
Makoto Sadamitsu, Takashi Kaminagayoshi
Takeda Pharmaceutical Company Ltd., Japan

P-34 **Case Study: Continuous Capture Step of a Monoclonal Antibody Downstream Process**
Ryo Doi, Kaori Itaya, Takashi Matsuda, Satoshi Nakamura, Masaaki Hanamura
JSR Corporation, Japan

P-35 **New Mixed-mode Resin for Proteins Purification**
Takanori Kishida, Tomoya Norinobu, Satoshi Nakamura, Masaaki Hanamura
JSR Corporation, Japan

P-36 **New Protein L Affinity Resins for Antibody Fragments Purification**
Jun-ichi Yasuoka, Kiichi Yoshimura, Satoshi Nakamura, Masaaki Hanamura, Tomonori Shiotani, Yusaku Mizuguchi
JSR Corporation, Japan

03. Functional Cell Lines

P-37 **Characterization of CHO Cells with Disparate Chromosome Numbers and Induction of Artificial Aneuploid Cells**
Noriko Yamano, Norichika Ogata, Yuan Shan Lai, Sho Tanaka, Wataru Tanaka, Yuichi Koga, Takeshi Omasa
Osaka University, Japan

P-38 **Multi-Color FISH and FISH Analysis is a Powerful Tool for Clonality Assurance of a CHO Cell Bank**
Seiji Yamauchi, Yoshiko Mukumoto, Takahisa Genji, Koji Tajino
chromocenter Inc., Japan

04. Glycoengineering

P-39 **FcγRIIIA Immobilized Analytical Column for Glycoform- and Efficacy-based Component Analysis of Therapeutic Antibodies**
Toru Tanaka, Kosuke Araki, Yoshiharu Asaoka, Yosuke Terao, Seigo Ooe, Teruhiko Ide, Kazuaki Muranaka
Tosoh Corporation, Japan

06. Transplantation, Artificial Organs, and Organ Substitutes

P-40 **Suppression of Aggregates in a Therapeutic Monoclonal Antibody Using a 25-residue Artificial Protein Named AF.2A1.**
Yukako Senga, Shinya Honda
National Institute of Advanced Industrial Science and Technology (AIST), Japan

07. Tissue Engineering and Stem Cells

P-41 **Cardiac Tissue Glycome Mapping Using Lectin Microarray for Heart Failure Cell Therapy**
Yoko Itakura, Yurika Kikkawa, Yuina Murakami, Atsushi Kuno, Chiaki Nagai-Okatani, Norihiko Sasaki, Masashi Toyoda
Tokyo Metropolitan Institute of Gerontology, Japan

P-42 **Magnetic Force-Based Skeletal Muscle Tissue Engineering**
Akira Ito, Kantaro Yoshioka, Yoshinori Kawabe, Masamichi Kamihira
Kyushu University, Japan

P-43 **Muscle-Neuron Tissue Fabrication Using C2C12/PC12 Coculture System**
Md Arifuzzaman, Akira Ito, Kazushi Ikeda, Yoshinori Kawabe, Masamichi Kamihira
Kyushu University, Japan

09. Transgenic Animals

P-44 **Targeted Knock-in of Transgene into Chicken Cells Using CRISPR/Cas9**
Shi Ming, Yoshinori Kawabe, Akira Ito, Masamichi Kamihira
Kyushu University, Japan

P-45 **Establishment of eGFP Knock-in Chicken by Manipulating Primordial Germ Cell Line Using CRISPR/Cas9**
Yuya Okuzaki, Yota Hagihara, Hidenori Kaneoka, Yuki Nakayama, Maki Kato, Shinji Iijima, Ken-ichi Nishijima
Nagoya University, Japan

10. Safety and Regulation

P-46 **Application of Silane-Based Coating to Biomaterials for Inhibiting Biofilm Induced Infection**
Akiko Ogawa, Akane Tahori, Mayumi Yano, Ryouma Hirobe, Satoshi Terada, Daisuke Kuroda, Katsuhiko Sano, Hideyuki Kanematsu
National Institute of Technology, Suzuka College, Japan

P-47 **The Development and Application of Rapid Quantification Method of *Listeria monocytogenes* in Milk by Real-Time PCR**
Fia Noviyanti, Shigemasa Shimizu, Yukie Hosotani, Shigenobu Koseki, Yasuhiro Inatsu, Susumu Kawasaki
University of Tsukuba, Japan

11. Cell Regulatory factors and signal transduction

P-48 **Sequential Post-translational Modifications Regulate Damaged DNA-binding Protein DDB2 Function**
Hidenori Kaneoka, Kazuhiko Arakawa, Daiki Ogawa, Ken-ichi Nishijima, Shinji Iijima
Nagoya University, Japan

P-49 **Potential Role of Isorhamnetin in Differentiation of Human Amnion Epithelial Cells to Hepatocyte-like Cells**
Yoshiaki Uchida, Farhana Ferdousi, Kazunori Sasaki, Yun-Wen Zheng, Hiroko Isoda
University of Tsukuba, Japan

P-50 **Molecular Mechanisms for Hypoxia-Induced Acquisition of Malignancy in Mouse Melanoma Cells**
Yui Kawara, Kotaro Hashimoto, Yutaka Miura
Tokyo University of Agriculture and Technology, Japan

12. Functional Substances in Food and Natural Sources

P-51 **Blueberry Leaf Extract Prevents Alcohol Induced Cytotoxicity in Rat Hepatocytes**
Kaede Yamasaki, Akifumi Watanabe, Kazuo Nishiyama, Masao Yamasaki
University of Miyazaki, Japan

P-52 **Biological Evaluation of Cinnamate-GW9662 Hybrid Compounds as a Novel Class of Covalent PPARγ Agonist**
Yuki Utsugi, Hirona Kobuchi, Yukio Kawamura, Ahmed Salahelden Aboelhamd Atito, Masaya Nagao, Hiroko Isoda, Yusaku Miyamae
University of Tsukuba, Japan

P-53 **Delay Effects of Dietary Restriction on the Aging of Immune Systems**
Ryota Suda, Yuya Ogata, Rio Kitazume, Daiki Shigefuku, Genki Ichihara, Atsushi Enomoto
Gunma University, Japan

P-54 **A Novel Biomarker for Quantitatively Evaluating the Aging of Immune Systems**
Daiki Shigefuku, Sayaka Hosoi, Yuya Ogata, Ryota Suda, Ryoko Kuno, Atsushi Enomoto
Gunma University, Japan

P-55 **Suppressive Effect of Asparagus Extract on Allergic Responses**
Akira Iwamoto, Hiroshi Hamajima, Kazumi Sebe, Keisuke Tsuge, Yumi Tsuruta, Kazutaka Sawada, Hiroaki Yotsumoto, Teruyoshi Yanagita
Industrial Technology Center of Saga, Japan

P-56 **Ashitaba Chalcones Prevent Dexamethasone-induced Muscle Protein Degradation**
Yumi Samukawa, Yoko Yamashita, Hitoshi Ashida
Kobe University, Japan

P-57 **B-ring Catechol Structure of Flavonol is Important for Prevention of Postprandial Hyperglycemia via Promotion of Glucose Uptake into Muscle Cells**
Megumi Aya, Daishi Shirasaya, Yoko Yamashita, Hitoshi Ashida
Kobe University, Japan

P-58 **The Inhibitory Effects of Toddaculin Isolated from *Toddalia asiatica* on Melanogenesis and Inflammation.**
Akio Watanabe, Momoka Kobayashi, Yuki Endo, Yoshiko Toida, Kiyotaka Nakagawa, Takayuki Yonezawa, Je-Tae Woo
Chubu University, Japan

P-59 **Establishment of a Stable NFκB-responsive Cell Line and Analysis of Anti-inflammatory Food Substances**
Mizuki Honda, Mio Aida, Asuka Kamei, Hideo Satsu
Maebashi Institute of Technology, Japan

P-60 **Purification and Anti-cancer Activity of Mannose-binding Lectin from Red Sword Bean *(Canavalia gladiate)***
Shiho Yanagizawa, Masahiro Shimizu, Yasunori Naganawa, Hiroshi Shinmoto
Tamagawa University, Japan

P-61 **Mechanism of Action of Caffeic Acid Derivatives for Anti-Neurodegenerative Diseases**
Nozomu Iwata, Kazunori Sasaki, Hiroko Isoda
University of Tsukuba, Japan

P-62 **Enzymatically Synthesized Glycogen Inhibits Allergic Responses in RBL-2H3 Cells and Bone Marrow Derived Mast Cells**
Masako Inoue, Yasukiyo Yoshioka, Takashi Furuiyashiki, Hitoshi Ashida
Kobe University, Japan

P-63 **A Solubility-Based Separation of Group B Soyasaponins with Zinc Transporter Protein (ZIP4)-Enhancement Activity from Whole Soybean Flour**
Masakazu Takahashi, Yoshiaki Uchida, Taiho Kambe, Hajime Katano
Fukui Prefectural University, Japan

P-64 **Effects of *Kaempferia parviflora* Extract on the Expression of Elastase and MMP-1 in Human Dermal Fibroblasts**
Momoka Kobayashi, Akio Watanabe, Kyohei Inagaki, Yusuke Deguchi, Je-Tae Woo, Takayuki Yonezawa
Chubu University, Japan

P-65 **Effects of Cubebin and Hinokinin Isolated from *Piper cubeba* on Glycolipid Metabolism**
Yuki Endo, Akio Watanabe, Akari Furusawa, Ryuzo Koduka, Yusuke Deguchi, Je-Tae Woo, Takayuki Yonezawa
Chubu University, Japan

P-66 **Cinnamic Acid Derivatives from Brazilian Green Propolis Promoted Osteoblast Differentiation and Suppressed Osteoclast Differentiation**
Yusuke Deguchi, Toshinari Kawakami, Yuri Ogawa, Akio Watanabe, Jairo Kenupp Bastos, Takayuki Yonezawa, Je-Tae Woo
Chubu University, Japan

P-67 **Pomegranate-derived Polyphenols Augment Barrier Function in Intestinal Cells through Inducing Autophagy**
Haruka Matsuo, Nanako Hanayama, Yoshinori Katakura
Kyushu University, Japan

P-68 **Molecular Basis for the Pomegranate-derived Polyphenol Induced Suppression of Colorectal Cancer**
Shiori Onoue, Sakae Hanada, Yoshinori Katakura
Kyushu University, Japan

P-69 **Protective Effects of Cysteine and Its Derivatives on Chemical-induced Cytotoxicity**
Tsunehito Higashi, Enas Elmeligy, Yosuke Mai, Yoichi Noya, Yuji Kuge, Yuichi Mazaki, Soichi Miwa
Hokkaido University, Japan

P-71 **Study of Molecular Mechanisms Underlying Relaxation-Inducing Activity of *Lippia citriodora* and the Encapsulated Verbascoside**
Mouad Sabti, Kazunori Sasaki, Marcos Antonio Neves, Chemseddoha Gadhi, Mitsutoshi Nakajima, Hiroko Isoda
University of Tsukuba, Japan

P-72 **Effects of Enzymatically Synthesized Glycogen on PM2.5-induced Oxidative Stress in NHEK Cells**
Tomoya Kitakaze, Yasukiyo Yoshioka, Hitoshi Ashida
Kobe University, Japan

P-73 **Antihyperuricemic Effect of Rutin in Cultured Hepatocytes and Novel Hyperuricemic Model Mice**
Shin-ichi Adachi, Mifuyu Oyama, Shinji Kondo, Kazumi Yagasaki
Utsunomiya University, Japan

13. Animal Cells for in vitro Assay

P-74 **Extended Llife-Span of Chick Fibroblasts by Expression of Cell Cycle Regulators**
Masafumi Katayama, Tohru Kiyono, Takahiro Eitsuka, Miho Inoue-Murayama, Manabu Onuma, Tomokazu Fukuda
National Institute for Environmental Studies, Japan

14. Other Topics Concerning Animal Cell Technology

P-75 **iTRAQ-based Quantitative Proteomic Analysis of Metabolic Responses to Environmental Stress in Nile Tilapia**
Maria Claret Tsuchiya, Charisse Leanne Legaspi, Hisato Iwata
University of the Philippines Los Banos, Philippines

P-76 **Implications of Feeds and Supplements on the Productivity and Quality of Recombinant Proteins Produced in CHO Cells**
Scott Eberhardy, Payel Maiti, Kyle Liu, Chaya Kataru, John F Menton
Kerry Ingredients & Flavours, United States