
Day 1 Program Nov. 28 (Tue)

Opening Remarks

13:00~13:15 Lecture Room 1 [141+142]

Symposium 1: Chicken as the Crossroads of Basic and Applied Research Fields

13:15~15:15 Lecture Room 1 [141+142]

Organizers: Yuya Okuzaki(*Nagoya University*), Ken-ichi Nishijima(*Nagoya University*)

Chairs: Yuya Okuzaki(*Nagoya University*), Yoshinori Kawabe(*Kyushu University*)

Co-hosted by Avian Bioscience Research Center, Nagoya University

Outline: Chickens has been used for the basic sciences including developmental research. Recent advances in transgenic technology provide the opportunities to use transgenic/genome-editing chickens in new applications. These include the bioproduction of pharmaceutical proteins, the reduction of allergen from eggs, and resistance for severe poultry diseases like influenza. In this session, several topics on such applied fields as well as new trials in chicken basic research will be discussed.

S1-01 Generation and application of transgenic chickens towards robust production system of recombinant proteins

13:15

Yoshinori Kawabe¹, Ken-ichi Nishijima², Masamichi Kamihira¹

¹Dept. Chem. Eng., Fac. Eng., Kyushu Univ., ²Grad. Schl. Bioagr. Sci., Nagoya Univ.

S1-02 Transcription Activator-Like Effector Nuclease-Mediated Deletion Safely Eliminates the Major Egg Allergen Ovomuroid in Chickens

13:45

Ryo Ezaki¹, Tetsushi Sakuma¹, Daisuke Kodama², Ryou Sasahara², Taichi Shiraogawa², Kennosuke Ichikawa¹, Mei Matsuzaki¹, Akihiro Handa³, Takashi Yamamoto¹, Hiroyuki Horiuchi¹

¹Hiroshima University, Japan, ²Kewpie Corporation, Japan, ³Tokyo Denki University, Japan

S1-03 Application for iPS cell technology to avian species

14:15

Masafumi Katayama¹, Tomokazu Fukuda²

¹National Institute for Environmental Studies,

²Graduate School of Science and Engineering, Iwate University

S1-04 Genome editing of poultry species for investigating disease resistance

14:45

Kennosuke Ichikawa, Lorna Taylor, Tuan Jun, Alewo Idoko-Akoh, Sudeepta Panda, Mike J. McGrew

The Roslin Institute, University of Edinburgh

Symposium 2: Regenerative Medicine Driven by Advancing Technologies

15:30~17:30 Lecture Room 1 [141+142]

Organizers: Ryuji Kato(*Nagoya University*), Kazunori Shimizu(*Nagoya University*)

Outline: Many advanced medical sciences, including regenerative medicine and cell therapy, progress rapidly due to the contributions of innovative technologies. Therefore, pioneering new fields often requires the integration of advanced technology, medicine, and bioscience. In this symposium, we invite prominent researchers who are exploring the frontiers of regenerative medicine and cell therapy through the implementation of “advancing technologies”. Together, we will discuss the challenges and opportunities presented by these advancing technologies in the development of new medical treatments.

S2-01 AI For Early Disease Pathology Detection

15:30

Bernd Rolauffs

University of Freiburg Medical Center

S2-02 AI Analysis and Immune System Effects

16:00

Melanie L Hart

G.E.R.N. Center for Tissue Replacement, Regeneration & Neogenesis, University of Freiburg Medical Center, Germany

S2-03 A new treatment strategy combining stem cell therapy and cutting-edge robotic rehabilitation

16:30

Louis Yuge^{1,2}

¹Ken Walker International University, ²Ube MCC Space Regenerative Medicine Center

S2-04 Diversity of Tissue Engineering--from Regenerative Therapy to Food Production--

17:00

Tatsuya Shimizu

Tokyo Women's Medical University

Day 2 Program Nov. 29 (Wed)

Plenary Lecture 1

9:00~9:40 Lecture Room 1 [141+142]

Chair: Yutaka Miura(*Tokyo University of Agriculture and Technology*)

PL1 Understanding the mystery of biological clocks: Learning from unique animals to contribute to food production and human health

9:00

Takashi Yoshimura

Nagoya Univ.

Symposium 3: Autophagy in Food Science

10:00~12:00 Lecture Room 1 [141+142]

Organizer: Taichi Hara(*Waseda University*)

Outline: The symposium focuses on autophagy, a regulated cellular process with potential applications in improving human well-being. It aims to explore the societal implications of autophagy and interdisciplinary research in food science. It will also highlight the efforts of companies and ventures to integrate autophagy into society. By examining challenges and future prospects, the symposium aims to stimulate meaningful discussions on the broad potential and implications of autophagy for improving human health.

S3-01 Application of autophagy in health and food science

10:00

Taichi Hara

Waseda University

S3-02 Autophagic Activity Evaluation Project Aimed at Extending Healthy Lifespan

10:20

Miwako Ishido

AutoPhagyGO Inc.

S3-03 Comparison of Fasting and Non-Fasting Molting on Ovarian function remodeling and transcriptomics in laying hens

10:45

Ling Chang¹, Xuexi Zhu¹, Kun Xie^{1,2}, Haihan Zhang¹, Xi He¹, **Zehe Song¹**

¹*College of Animal Science and Technology, Hunan Agricultural University, China,*

²*Laboratory of Food and Life Science, Faculty of Human Sciences, Waseda University, Japan*

S3-04 Spermidine activates mitochondrial trifunctional protein and improves antitumor immunity in mice

11:10

Kenji Chamoto

Kyoto Univ.

S3-05 Innovation of anthocyanin food from laboratory bench to healthy dining table

11:35

De-Xing Hou

Kagoshima Univ.

Luncheon Seminar 1

12:20~13:10 Lecture Room 1 [141+142]

LS-1 Introduction of Cell culture related products and services provided by Nichirei Biosciences

12:20

1. Introduction of Nichirei Biosciences

Nozomi Takahashi

Nichirei Biosciences

2. Introduction of JSBio Cell Culture Medium (CCM)

Louis Cheung

Jianshun Biosciences Co., Ltd.

Sponsor: NICHIREI BIOSCIENCES INC.

Plenary Lecture 2

13:30~14:10 Lecture Room 1 [141+142]

Chair: Masamichi Kamihira(*Kyushu University*)

PL2 Recent advances in genome editing technology and its application in various fields

13:30

Takashi Yamamoto

Hiroshima Univ.

Technical Seminars

14:25~16:25 Lecture Room 1 [141+142]

TS-1 Galactose and Mannose Supplementation in Cell Culture - Glycoform Modulation and Other Considerations

14:25

Sudhakar Voruganti

Pfanstiehl, Inc.

TS-2 Analysis of Antibody-Drug Conjugate by New High-Performance Hydrophobic Interaction Chromatography Column

14:55

Yosuke Yamasaki

Bioscience Division, Tosoh Corporation, Japan

TS-3-1 Introducing Xcellerex™ X-platform bioreactors

15:10

Carrie Miller

Cytiva

TS-3-2 Targeted cell culture media manufacturing

15:25

Christopher Woolstenhulme

Cytiva

TS-4 BioProfile® FAST CDV and BioProfile® FLEX2 offer various options to monitor your process from the beginning of development to the end of production

15:40

Sherry Lin

Nova Biomedical

TS-5 Novel approach to establish virus inactivation and intermediate polishing process of biological drug

15:55

WonHyun Hwang (James)

Avantor Performance Materials

Symposium 4: Animal Cell Technology from Asia: Toward Bioproduction and Health

16:40~18:40 Lecture Room 1 [141+142]

Organizer: Hiroaki Oda(*Nagoya University*)

Chairs: Hiroaki Oda(*Nagoya University*), Shu-Chen Hsieh(*National Taiwan University*)

Outline: Asia is one of the hottest areas to promote the reserches on animal cell technology. In this symposium, we can share the cutting edge research on the bioproduction and the food and health issues from Asian colleagues.

S4-01 Development of Chemically Defined, DMSO-free, Serum-free, Animal Component-free Cryopreservation Media for Mammalian Cells

16:40

Duk Jae Oh

Sejong Univ.

S4-02 Microbeads and 3D printed scaffolds for lab-based meat culture

17:10

Dejian Huang, Linzhi Jing, Lingshan Su, Yan Kong, Han Liu

National University of Singapore

S4-03 Identification of protein targets and proapoptotic mechanism of Chinese olives extract in colorectal cancer cell lines with thermal stability analysis

17:40

Shu-Chen Hsieh, Guan-Ting Lian

National Taiwan University

S4-04 Anti-inflammatory, Proresolving, and Chemopreventive Effects of Docosahexaenoic Acid and Its Electrophilic Metabolite

18:10

Young-Joon Surh

Seoul National University

ESACT Medal Ceremony

18:50~19:05 Lecture Room 1 [141+142]

Poster odd-number

19:15-19:35 Poster Room [Reception Hall]

Poster even-number

19:35-19:55 Poster Room [Reception Hall]

*Please present on both Day 2 (11/29) and Day 3 (11/30).

Day 3 Program Nov. 30 (Thu)

ESACT Plenary Lecture 1

9:00~9:30 Lecture Room 1 [141+142]

Chair: Takeshi Omasa(*Osaka University*)

EPL-1 EPIGENETICS AND PHENOTYPES IN CHO cell lines

9:00

Nicole Borth

BOKU University Vienna

ESACT Plenary Lecture 2

9:30~10:00 Lecture Room 1 [141+142]

Chair: Akira Egashira(*Astellas Pharma Inc.*)

EPL-2 Bispecifics – Different Formats Bring Different Treatment Opportunities But Also Different CMC Challenges

9:30

Anne Bondgaard Tolstrup

AbtBioConsult ApS

Oral Session 1

10:18~11:23 Lecture Room 1 [141+142]

Chairs: Yoshinori Kawabe(*Kyushu University*), Ryo Misaki(*Osaka University*)

O-1 Edible Microcarriers From Zein Enable Microtissues Formation For Cell-Based Meat

10:18

Linzhi Jing¹, Lingshan Su^{1,2}, Dejian Huang^{1,2}, Yan Kong¹

¹National University of Singapore (Suzhou) Research Institute, ²National University of Singapore (NUS)

O-2 Profiling of Cell Culture Motion for The Standardization and Education

10:31

Kengo Momose¹, Takeru Shiina¹, Yuto Takemoto¹, Kei Kanie^{1,2}, Kenjiro Tanaka¹, Ryuji Kato^{1,3}

¹Nagoya Univ., ²Kindai Univ., ³Inst. Nano-life Sys.

O-3 Bioprocess Digital Twins: Common Challenges And Solutions

10:44

Edward Close

Siemens Digital Industries Software

O-4 Morphological Profiling of CHO Cells for Detection of Antibody Production Performance

10:57

Takumi Hisada¹, Yuto Takemoto¹, Kei Kanie^{1,3}, Kenjiro Tanaka¹, Ryuji Kato^{1,2}

¹Nagoya Univ., ²Inst. Nano-life Sys., ³Kindai Univ.

O-5 Understanding of Morphological Data Landscape for Effective Data Augmentation

11:10

Kazue Kimura¹, Yuto Takemoto¹, Kanie Kei^{1,2}, Kenjiro Tanaka¹, Ryuji Kato^{1,3}

¹Graduate School of Pharmaceutical Sciences, Nagoya University, Japan,

²Faculty of Engineering Graduate School of Systems Engineering, Kindai University, Japan,

³Institute of Nano-Life-Systems, Institutes of Innovation for Future Society, Nagoya University

Chairs: Chuda Chittasupho(*Chiang Mai University*), Meng-Chieh Hsu(*National Taiwan University*)

- O-6**
10:05 **Promotion of Skin Epidermal Formation in Three-dimensional Culture System by Shaking Treatment Through Reduction of Hypoxia Response**
Mayuko Endo, Kojin Kitadani, Hirofumi Teshima, Kiyotaka Hitomi
Grad. Sch. Pharm. Sci., Nagoya Univ.
- O-7**
10:18 **Evaluation of Angiogenic Potency of Human Mesenchymal Stem Cell Using 5-layer Skeletal Muscle Cell Sheet**
Megumi Fukuda¹, Rikiya Nitta¹, Parichut Thummarati^{1,2}, Masahiro Kino-oka^{1,3}
¹*Dept. Biotechnology, Grad. Sch. Eng., Osaka University, Japan,*
²*Center Excellent for Biosensors and Bioengineering(CEBB), Dept. Clin. Chem., Fac. Allied Health Sci., Chulalongkorn University, Thailand,*
³*Research Base for Cell Manufacturability, Grad. Sch. Eng., Osaka University, Japan*
- O-8**
10:31 **Phenylethanoid Glycoside-Enriched Extract Prepared from Clerodendrum chinense Leaf Inhibits A549 Lung Cancer Cell Migration and Apoptosis Induction through Enhancing ROS Production**
Chuda Chittasupho¹, Sirivan Athikomkulchai², Weerasak Samee³, Mingkwan NaTakuathung^{4,5}, Wipawadee Yooin^{1,6}, Kasirawat Sawangrat^{1,6}, Chalermpong Saenjum^{1,6}
¹*Department of Pharmaceutical Sciences, Faculty of Pharmacy, Chiang Mai University, Thailand,*
²*Department of Pharmacognosy, Faculty of Pharmacy, Srinakharinwirot University, Thailand,*
³*Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Srinakharinwirot University, Thailand,*
⁴*Department of Pharmacology, Faculty of Medicine, Chiang Mai University, Thailand,*
⁵*Clinical Research Center for Food and Herbal Product Trials and Development (CR-FAH), Faculty of Medicine, Chiang Mai University, Thailand,*
⁶*Center of Excellence for Innovation in Analytical Science and Technology for Biodiversity-Based Economic and Society (I-ANALY-S-T_B.BES-CMU), Chiang Mai University, Thailand*
- O-9**
10:44 **Anti-inflammatory Effect of Clove Aqueous Extract on LPS-stimulated Macrophage Cell Line RAW 264.7 Cells**
Sellen Gurusmatika¹, Momoko Ishida¹, Kosuke Nishi¹, Hiroyuki Onda², Nanami Yoshino², Takuya Sugahara¹
¹*Ehime University,* ²*S&B FOODS INC*
- O-10**
10:57 **Anserine Suppresses High-Fat Diet-Induced Inflammation in Intestinal Tissues**
Arisa Yoshida¹, Yimei Wang¹, Miyuki Shiobara¹, Kohei Soga¹, Yusuke Saeki¹, Shuhei Koderia¹, Hibine Mizobuchi¹, Chenxu Lei², Kenichiro Sato³, Yoshinori Katakura⁴, Mamoru Totsuka⁵, Tatsuhiro Hisatsune², Haruyo Nakajima-Adachi¹, Satoshi Hachimura¹
¹*Research Center for Food Safety, Graduate School of Agricultural and Life Sciences, University of Tokyo,*
²*Department of Integrated Biosciences, Graduate School of Frontier Sciences, University of Tokyo,*
³*Tokai Bussan, Co.,* ⁴*Faculty of Agriculture, Kyushu University,*
⁵*Department of Molecular Microbiology, Faculty of Life Science, Tokyo University of Agriculture*
- O-11**
11:10 **Mitochondrial Quality Control: The Import Stress Response**
Meng-Chieh Hsu^{1,2}, Richard Youle²
¹*National Taiwan University, Taiwan,* ²*National Institutes of Health, USA*

- O-12** **Immortalization of primary cells derived from the endangered Ryukyu long-furred rat**
11:23
Lanlan Bai¹, Noe Kikuchi¹, Takahiro Eitsuka², Himari Matsusaka¹, Kiyotaka Nakagawa², Masafumi Katayama³, Keiko Ito⁴, Miho Inoue-Murayama⁵, Tohru Kiyono⁶, Tomokazu Fukuda¹
¹*Graduate School of Science and Engineering, Iwate University, Japan,*
²*Graduate School of Agricultural Science, Tohoku University, Japan,*
³*Environmental Genomics Office, Biodiversity Division, National Institute for Environmental Studies, Japan,*
⁴*Amami Dog and Cat Animal Hospital, Japan,* ⁵*Wildlife Research Center, Kyoto University, Japan,*
⁶*Exploratory Oncology Research & Clinical Trial Center, National Cancer Center, Japan.*

Luncheon Seminar 2

11:50~12:40 Lecture Room 1 [141+142]

- LS-2** **Usage of Raman for process control**
11:50
Henry Weichert
Sartorius Stedim Biotech GmbH, Goettingen

Sponsor: Sartorius Stedim Biotech GmbH

Symposium 5: "PostCas9" Genome Editing - Paving the Way for Industrial Applications

13:00~15:00 Lecture Room 1 [141+142]

Organizers: Tetsushi Sakuma(*Hiroshima University*), Kazuto Yoshimi(*The University of Tokyo*)

Co-hosted by The Committee for Education and Training, The Japanese Society for Genome Editing

Outline: After the demonstration of genome editing in mammalian cells using CRISPR-Cas9, it has become an essential technology for animal cell engineering in this decade. CRISPR-Cas9 is easy to manipulate and shows high genome editing efficiency; however, alternative technologies other than CRISPR-Cas9 are also quite important especially for the industrial applications. In this symposium, we focus on such an alternative toolbox enabling industry-friendly gene engineering in animal cells. Five symposiasts cover the topics not only for genome editing tools but also for transcriptome editing and bioinformatics tools.

Opening Remarks

13:00

S5-01 **Genome editing technology and applications with the type I-E CRISPR system**

13:02

Kazuto Yoshimi

Institute of Medical Science, The University of Tokyo

S5-02 **Development of a novel genome editing technology using CRISPR-Cas type I-D toward its industrial application**

13:25

Keishi Osakabe

Tokushima Univ.

S5-03 **CRISPR-free Nuclear Base Editing by the Cooperation of Novel Single-molecule Nickase and Deaminase Fused with TAL Effectors**

13:48

Tetsushi Sakuma¹, Nahoko Nishibori², Hina Kubota³, Tadahiko Yoshima³

¹*Graduate School of Integrated Sciences for Life, Hiroshima University,*

²*Genome Editing Innovation Center, Hiroshima University,*

³*Bioscience Research Laboratory, Sumitomo Chemical Co., Ltd*

S5-04 **Computational Resources for Industrial Application of Genome Editing**

14:11

Kazuki Nakamae^{1,2}

¹*Hiroshima Univ.,* ²*PtBio Inc.*

S5-05 PPR Protein-Based Transcriptome Editing

14:34

Takahiro Nakamura

Kyushu Univ.

Closing Remarks

14:57

Symposium 6: Recent Advances in Cell Culture and Cell Engineering (I)

15:30~17:30 Lecture Room 1 [141+142]

Organizers: Takeshi Omasa(*Osaka University*), Akira Egashira(*Astellas Pharma Inc.*)

Outline: Focusing on the recent progress in cell engineering and cell culture engineering, this symposium aims to introduce the latest findings from Japanese and Asian companies and academia and to discuss future directions. We also would like to discuss the global networks among industry and academia and education, training, and human resources.

Opening Remarks

15:30

S6-01 Development of a stable antibody production system utilizing an Hspa5 promoter in CHO cells

15:34

Hiroki Tanemura¹, Kenji Masuda¹, Takeshi Okumura¹, Eri Takagi¹, Daisuke Kajihara¹, Hirofumi Kakihara¹, Koichi Nonaka¹, Ryo Ushioda²

¹*DAIICHI SANKYO CO., LTD.*, ²*Kyoto Sangyo University*

S6-02 Application of Multi-omics Profiling and Design of Experiment (DoE) Approach in Biologics Process Development

16:03

Say Kong Ng, Evan Tan, Alison Lee, Ying Swan Ho

*Bioprocessing Technology Institute/ A*STAR*

S6-03 Non-Natively Structured Antibodies in CHO Bioprocessing

16:32

Masayoshi Onitsuka

Tokushima Univ.

S6-04 Cellvento[®] ModiFeed Program: Tailoring Protein Critical Quality Attributes with Feeds

17:01

Sadao Ozawa¹, Martina Grabner², Kate Hellman³

¹*Merck Limited, Japan*, ²*Merck KGaA, Germany*, ³*MilliporeSigma, USA.*

Poster odd-number

17:45-18:10 Poster Room [Reception Hall]

Poster even-number

18:10-18:35 Poster Room [Reception Hall]

*Please present on both Day 2 (11/29) and Day 3 (11/30).

Day 4 Program Dec. 1 (Fri)

Plenary Lecture 3

9:00~9:40 Lecture Room 1 [141+142]

Chair: Kiyotaka Hitomi(*Nagoya University*)

PL3 Advancements in Regenerative Medicine for Ophthalmology

9:00

Takahiro Ogasawara

Japan Tissue Engineering Co., Ltd.

Symposium 7: Recent Advances in Cell Culture and Cell Engineering (II)

9:50~11:50 Lecture Room 1 [141+142]

Organizers: Takeshi Omasa(*Osaka University*), Akira Egashira(*Astellas Pharma Inc.*)

Outline: Focusing on the recent progress in cell engineering and cell culture engineering, this symposium aims to introduce the latest findings from Japanese and Asian companies and academia and to discuss future directions. We also would like to discuss the global networks among industry and academia and education, training, and human resources.

S7-01 Innovative Technologies Enabling Efficient Development and Manufacturing of Multiple Formats of Bispecific Antibodies

9:50

Weichang Zhou

WuXi Biologics

S7-02 Cystine And Tyrosine Feed Reduces Oxidative And ER Stress In CHO Cells

10:19

Yusuke Shibafuji¹, Nobuyoshi Nagao¹, Masafumi Yohda²

¹*AGC Inc.*, ²*Tokyo University of Agriculture and Technology*

S7-03 Development of a real time monitoring method for animal cell culture processes with Raman spectroscopy

10:48

Yuichi Matsumoto

Kyowa Kirin Co.,Ltd.

S7-04 Using N-1 perfusion and compacted media intensifies the seed train

11:17

Sadao Ozawa

Merck Limited, Japan

Closing Remarks

11:46

Luncheon Seminar 3

12:10~13:00 Lecture Room 1 [141+142]

LS-3 Seed train intensification with perfusion technology - Cost Reduction and Improve Throughput

12:10

Sadao Ozawa

Merck Limited, Japan

Sponsor: Merck Ltd.

Chairs: Hirokazu Akiyama(*Nagoya University*), Masahiro Kino-oka(*Osaka University*)

O-13 Manufacturing Scale Demonstration Of A Continuous Biomanufacturing Process For Antibody Production

13:15

Atsushi Inada¹, Hiroshi Sakuyama¹, Nobuyuki Haraguchi¹, Takashi Kurosawa¹, Masayuki Haga¹, Katsuhiko Shimono¹, Junichi Kori¹, Shuhei Katayama¹, Tatsuya Matsuura¹, Yoichi Nagai¹, Shunichi Yoshida¹, Kosuke Taniguchi¹, Naomichi Hikichi¹, Leon Pybus², John Raven², Tibor Nagy², Charles Heise², Michelle Lyons², Shinichi Nakai¹
¹FUJIFILM Corporation, ²FUJIFILM Diosynth Biotechnologies UK Limited

O-14 Evaluation of ambr250 as a scale down model in upstream process development at Takeda

13:28

Hayato Koizumi
Takeda Pharmaceutical Company

O-15 Production of bio heparins using engineered CHO cells

13:41

Daiki Okada, Yoshinori Kawabe, Razia Sultana, Feiyang Zheng, Yuki Amamoto, Masamichi Kamihira
Kyushu Univ.

O-16 Elucidation of a 3D Primary Culture System of Human Mesenchymal Stem Cells

13:54

Masashi Okitani¹, Riku Yamamoto¹, Kenichi Yamahara³, Akiko Hamada³, Masahiro Kino-oka^{1,2}
¹Dept. Biotechnology, Grad. Sch. Eng., Osaka University, Japan,
²Research Base for Cell Manufacturability, Grad. Sch. Eng., Osaka University, Japan,
³Laboratory of Molecular and Cellular Therapy, Institute for Advanced Medical Sciences, Hyogo Medical University, Japan

O-17 Development of a Suspension Culture System for MSCs on a Fluffy Scaffold

14:07

Gabrielle Erwin Gemeniano Awitan¹, Riku Yamamoto¹, Masahiro Kino-oka^{1,2}
¹Dept. Biotechnology, Grad. Sch. Eng., Osaka University, Japan,
²Research Base for Cell Manufacturability, Grad. Sch. Eng., Osaka University, Japan

O-18 Expansion of Human Mesenchymal Stem Cells Using Collagen-modified Polyvinyl Alcohol Microcarriers

14:20

Masahiro Kaneko¹, Airi Sato², Satoru Ayano³, Akio Fujita³, Goro Kobayashi³, Akira Ito¹
¹Nagoya Univ., ²Chubu Univ., ³Kuraray Co., Ltd.

O-19 Process Optimization of Multipotent Cardiovascular Progenitor Cell Generation from iPSCs using Design of Experiments

14:33

Hirokazu Akiyama, Yosuke Katayama, Kazunori Shimizu, Hiroyuki Honda
Nagoya University

O-20 E-Cadherin Mediated Regulation of iPSC Fates toward Functional Hepatocytes using Botulinum Hemagglutinin

14:46

Mee-Hae Kim¹, Masahiro Kino-oka^{1,2}
¹Department of Biotechnology, Osaka University,
²Research Base for Cell Manufacturability, Osaka University

Chairs: Farhana Ferdousi(*University of Tsukuba*), Masahiro Kawahara(*NIBIOHN*)

- O-21** 13:15 **Somatic Differentiation of Chicken Primordial Germ Cells Exhibits Partial Epithelial-to-Mesenchymal Transition (EMT)-like Features**
Kennosuke Ichikawa¹, Yuzuha Motoe², Mei Matsuzaki², Ryo Ezaki², Hiroyuki Horiuchi², Mike McGrew¹
¹The University of Edinburgh, UK, ²Hiroshima University, Japan
- O-22** 13:28 **4,4'-Dimethoxychalcone (DMC): A Novel GATA2-Dependent Modulator of Autophagy Beyond mTOR Signaling**
Jinyun Wang¹, Kun Xie^{1,2}, Saki Shiota¹, Miyu Kamimura¹, Taichi Hara¹
¹Waseda Univ., ²Hunan Agricultural Univ.
- O-23** 13:41 **Autophagy Induction by D-Tryptophan and D-Aspartic Acid: A Dive into mTOR-independent Signaling Pathways**
Kun Xie^{1,2}, Jinyun Wang¹, Miyu Kamimura¹, Saki Shiota¹, Taichi Hara¹
¹Laboratory of Food and Life Science, Faculty of Human Sciences, Waseda University, Japan,
²College of Animal Science and Technology, Hunan Agricultural University, China
- O-24** 13:54 **The Relationship Between the Ingredient Composition in Chenpi Extracts and Their Physiological Effects**
Nao Kunitake¹, Sakurako Hamada², Ryosuke Fujinuma², Shiho Kagami³, Masaaki Yamada³, Chie Umatani¹, Yutaka Miura¹
¹Division of Applied Biological Chemistry, Institute of Agriculture, Tokyo University of Agriculture and Technology,
²Department of Natural Science, College of Liberal Arts, International Christian University,
³Division of International Environmental and Agricultural Science, Institute of Agriculture, Tokyo University of Agriculture and Technology
- O-25** 14:07 **Mechanism of Taurine on Improving Hypercholesterolemia Using Transcriptomics**
Qi Song, Satoru Kobayashi, Hiroaki Oda
Nagoya Univ.
- O-26** 14:20 **Ashitaba Chalcones Prevent Hyperglycemia via AMPK-dependent Glucose Uptake in Skeletal Muscle Cells and GLP-1 Secretion from Enteroendocrine L-Cells**
Kevin Odongo¹, Ayane Abe¹, Moe Ishinaka¹, Rina Kawasaki¹, Naoki Harada², Kyuichi Kawabata³, Hitoshi Ashida¹
¹Graduate School of Agricultural Science, Kobe University, Japan,
²Graduate School of Agriculture, Osaka Metropolitan University, Japan,
³Faculty of Clinical Nutrition and Dietetics, Konan Women's University, Japan
- O-27** 14:33 **A Whole-transcriptomic Study Using a Stem Cell-Based Model for Comparing the Multi-tissue-specific Bioactivities of Rare Olive Compound Oleacein and Oleocanthal**
Farhana Ferdousi^{1,2}, Kazunori Sasaki^{2,3}, Ken-ichi Tominaga³, Hiroko Isoda^{1,2,3}
¹Institute of Life and Environmental Sciences, University of Tsukuba,
²Alliance for Research on the Mediterranean and North Africa (ARENA), University of Tsukuba,
³Open Innovation Laboratory for Food and Medicinal Resource Engineering (FoodMed-OIL), National Institute of Advanced Industrial Science and Technology (AIST)

O-28 Construction of the designer c-KIT for arbitrarily controlling signal transduction properties

14:46

Masahiro Kawahara^{1,2}, Tatphon Kongkrongtong²

¹NIBIOHN, ²The University of Tokyo

O-29 Regulation of NAGNAG Acceptor Alternative Splicing in the Clock Gene *ROR α* and Its Effect on Clock Oscillation

14:59

Naho Hashimoto, Shunsuke Nakajima, Yuki Hosaka, Hiroaki Oda

Nagoya Univ.

Award Ceremony / Closing Remarks

15:30~15:45 Lecture Room 1 [141+142]

Poster Session

Poster Session

Poster Room [Reception Hall]

Nov. 29 19:15-19:35 (Poster odd-number)

19:40-19:55 (Poster even-number)

Nov. 30 17:45-18:10 (Poster odd-number)

18:10-18:35 (Poster even-number)

*Please present on both Day 2 (11/29) and Day 3 (11/30).

P-01 Automating subunit mAb attribute screening for in-process monitoring of an automated high-throughput multi-parallel bioreactor

Thanai Paxton¹, Kenji Hirose¹, Nick Pittman², Patrick Boyce², Caitlin Hanna³, Samantha Ippoliti³, Yun W Alelyunas³, Charles Prochaska⁴, Clint Kukla⁴, Guillaume Bechade², Magnus Wetterhall², Mark Wrona³, Stephan M Koza³, Ying Qing Yu³
¹*Nihon Waters K.K.*, ²*Waters Corporation, United Kingdom*, ³*Waters Corporation, MA*,
⁴*Sartorius Stedim NA, NY*

P-02 Characteristics of transfection reagents for obtaining high rAAV vector production

Kyoko Masumi-Koizumi, Keisuke Yusa, Kazuhisa Uchida
Kobe Univ.

P-03 Evaluation of Next-Generation MAb Production Platform Consisting of CHO-MK Cells and Customized Media

Hisashi Saeki, Kaori Fueki, Naoki Maeda
FUJIFILM Wako Pure Chemical Corporation

P-04 Current status/issues of raw material management and efforts toward stable production of Biopharmaceuticals drug substance manufacturing (cell culture stream)

Megumi Sugiyama, Kentaro Sakai, Ken Takahashi, Naoki Matsunaga, Ryuji Nomura
Kyowa Kirin Co., Ltd

P-05 PEPTIDE-BASED-SOLUTIONS TO REDUCE UNDESIREED CELL CULTURE MEDIA CHEMISTRY – NEW OPTIONS FOR STABILIZED MEDIA FORMULATIONS

Spandan Mishra¹, Stephan Brinkmann², Martin Schilling², Christina Jost², Tamara Heinze², Risai Dubrall², Anne Benedikt²
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P-06 Copper Precipitation Associated with the Formation of Hydrogen Sulfide During Cell Culture Media Preparation

Hisashi Saeki, Naoki Maeda, **Sadamu Kurono**
FUJIFILM Wako Pure Chemical Corporation

P-07 Myricetin protects cognitive function accompanied with upregulation of BDNF expression

Yu Shimada, Yuka Sato, Ryo Kitamura, Motofumi Kumazoe, Yoshinori Fujimura, Hirofumi Tachibana
Division of Applied Biological Chemistry, Department of Bioscience and Biotechnology, Faculty of Agriculture, Kyushu University

- P-08 Risk assessment for biopharmaceutical single-use manufacturing: a case study of upstream continuous processing**
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¹Merck Ltd. Japan, ²Merck Chemicals (Shanghai) Co Ltd., ³Merck Ltd. Korea, ⁴Merck Pte. Ltd
- P-09 Comprehensive transcriptome data to identify downstream genes of testosterone signalling in dermal papilla cells**
Himari Matsusaka¹, Tao Wu¹, Tomoe Yamada Kato², Lanlan Bai¹, Hiroshi Tomita¹, Eriko Sugano¹, Taku Ozaki¹, Tohru Kiyono³, Isao Okunishi², Tomokazu Fukuda¹
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- P-10 Do More With Less: Fit-For-Purpose Tools To Speed Up upstream Process Development For Continuous Biomanufacturing**
Yusuke Tomioka¹, Quang Long Pham², Channing McLaurin², Jana Mahadevan²
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- P-11 Development of CO2-independent Media for iPSCs Expansion and Cardiomyocyte Differentiation**
Yugo Okazaki¹, Tomoaki Kato², Yuko Kitano², Kenji Yoshimochi¹, Motoshi Shimotsuma¹, Masoyoshi Tsukahara²
¹Nacalai Tesque, ²CiRA Foundation
- P-12 Development of new microcarriers suitable for mass culture of therapeutic cells**
Yusuke Hirai, Satoru Ayano, Akio Fujita, Goro Kobayashi
 KURARAY CO., LTD
- P-13 Studies on Anti-degranulation Activity of Flaxseed Water-soluble Dietary Fiber Extract**
Zixuan Teng¹, Kosuke Nishi^{1,2}, Momoko Ishida^{1,2}, Kyoko Shimazu³, Satoshi Fukumitsu³, Takuya Sugahara^{1,2}
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- P-14 Development and optimization of CRISPR-Cas3-mediated gene knock-in technology**
Daiki Nagatomo¹, Kazuto Yoshimi², Tomoji Mashimo², Tetsushi Sakuma¹
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- P-15 Expansion of the LoAD system for efficient genome engineering by strongly biasing the editing outcomes**
Sota Nishikawa, Mizuki Sato, Tetsushi Sakuma
 Graduate School of Integrated Sciences for Life, Hiroshima University
- P-16 CRISPRa/c: simultaneous, orthogonal, and high-efficiency control of the activation and repression of transcription and DNA cleavage**
Shunichiro Usui¹, Atsushi Kunii², Tetsushi Sakuma¹
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- P-17 Development of a system to select high antibody-producing cells using the CELL HANDLER™ cell picking & imaging system**
 Gakuro Harada¹, Emiko Matsubara¹, Hiroshi Tahara², Kazuya Tsujioka², Kiyotaka Matsuno¹, Yuichi Hikichi¹
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- P-18 Medium optimization for mammalian cells using machine learning**
 Takamasa Hashizume, Yuki Ozawa, Bei-Wen Ying
 School of Life and Environmental Sciences, University of Tsukuba
- P-19 Enhancement of Antibody Productivity and Cell Viability Improvement by Ubenimex as a Media Additive of CHO Fed-batch Culture**
 Yosuke Wada, Yasunori Oba, Yoshifumi Kishi, Ken Shimada, Yusuke Akashi, Hitomi Manaka, Tomotake Takai, Shunsuke Ohira
 Astellas Pharma Inc.
- P-20 Development of a high-performance transcriptional activation system using Class 1 CRISPR system**
 Maya Oko¹, Atsushi Kunii², Kazuto Yoshimi³, Tomoji Mashimo³, Tetsushi Sakuma¹
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²Graduate School of Science, Hiroshima University, ³Institute of Medical Science, The University of Tokyo
- P-21 New High-Performance Hydrophobic Interaction Chromatography Column for Separation of Antibody-Drug Conjugate (ADC)**
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- P-22 Application of next-generation sequencing for virus detection in the biopharmaceutical manufacturing process**
 Dichi Fujiawa¹, Noriko Hashiba², Keina Yamaguchi¹, Keisuke Yusa², Kousuke Kuroda¹, Kazuhisa Uchida²
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- P-23 Effect of water-soluble fraction of a heated water extract of defatted *Perilla frutescens* Britton var. *japonica* Hara seed residue on the regulation of bone metabolism**
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- P-24 Anti-inflammatory effect of Sake Lees Free Ceramide in Lipopolysaccharide (LPS)-stimulated RAW 264.7 Macrophages**
 Hiroko Okuda¹, Hiroyuki Asano¹, Yoshinori Umezawa², Sogo Nishimoto^{1,3}
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- P-25 Development of the transgenic chicken constitutively-expressing *Streptococcus pyogenes* Cas9**
Yukiko Kondo, Yuya Okuzaki, Ken-ichi Nishijima
Nagoya Univ.
- P-26 Exploring and Identification of Functional Inhibitors for Human ABCC11, a Risk Factor of Axillary Osmidrosis**
Yu Toyoda^{1,2}, Hiroataka Matsuo², Tappei Takada¹
¹*The University of Tokyo Hospital*, ²*National Defense Medical College*
- P-27 Assessing the Impact of Cell Culture Conditions on Recombinant Antibody Production in CHO Perfusion Culture**
Muneyoshi Okamoto¹, Hiroaki Kato², Keisuke Shibuya³, Hiroe Amo⁴, Masayoshi Onitsuka⁴
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- P-28 3D-Printed Prolamin Scaffolds for Cell-Based Meat Culture**
Lingshan Su, Linzhi Jing, Dejian Huang
National University of Singapore
- P-29 Novel Manufacturing Process for Active Human Hepatocyte Growth Factor (hHGF) in Animal Component-free Condition**
Masashi Shimizu¹, Toshitaka Sato¹, Mami Gomibuchi¹, Sachiko Kikuchi², Yoshifumi Uemoto¹
¹*Eisai Co., Ltd.*, ²*EA Pharma Co., Ltd.*
- P-30 Development of a novel screening system for an anti-aging food targeting FOXO**
Jiahao Wang, Yoshinori Katakura, Miyako Udono, Ayano Tanaka
Kyushu Univ.
- P-31 Activation of muscle-brain interaction by carnosine**
Momoka Sato¹, Asuka Ishibashi¹, Miyako Udono¹, Mikako Sato², Yoshinori Katakura¹
¹*Kyushu Univ.*, ²*Research & Development Center, NH Foods*
- P-32 Exploring the Anti-adipogenic Potential of Tsuruazuki Bean Extracts in 3T3-L1 Preadipocytes**
Elda Nurafnie Ibnu Rasid¹, Farhana Ferdousi^{1,2,3}, Shinya Takahashi^{1,2,3}, Norihiko Tomooka⁴, Kyoko Toda⁴, Mari Maeda-Yamamoto⁴, Hiroko Isoda^{1,2,3,5}
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P-33 Ethylene Glycol Derivatives of Squalene Alleviate Excessive Lipogenesis and Inflammatory Response in 3T3-L1 Preadipocytes: A Comparative Whole-Transcriptomics Study

Yu Cheng¹, Farhana Ferdousi^{1,2,3,4}, Bryan Angelo Foronda⁴, Tran Ngoc Linh⁵, Munkhzul Ganbold⁵, Akira Yada^{5,6}, Takashi Arimura⁵, Hiroko Isoda^{1,2,3,4,5}

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P-34 A Comparative Study to Understand the Molecular Mechanisms Contributing to the Enhanced Neurogenesis Effects of Caffeoylquinic and Feruloylquinic Acid Isomers in Adult Mice Neural Stem Cells

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P-35 Development of CHO Cells Harboring Production Enhancer Genes (PEGs)

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P-36 Hepatocyte Spheroid Culture using Two Microwell Chips having PEG or MicoCell™ Surfaces

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P-37 A Newly Synthesized Amphiphilic Squalene Derivative Exerts Anti-Metastatic Activity in Malignant Melanoma Cells

Yaman Zhang¹, Meriem Bejaoui^{2,3}, Tran Ngoc Linh², Takashi Arimura², Hiroko Isoda^{1,2,3,4}

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- P-38** **Generation and Phenotype Analysis of Conditional Knockout Mice Deficient in Transglutaminase 1, a Protein Cross-linking Enzyme That Regulates Epithelial Barrier Function**
 Atsuki Takahashi, Ryota Tamura, Hideki Tatsukawa, Kiyotaka Hitomi
Nagoya Univ.
- P-39** **Hepatic Maturation of Differentiating iPS Cells in a Three-Dimensional Culture Using Hollow Fibers**
 Yuki Hokamaki¹, Hiroshi Mizumoto², Toshihisa Kajiwara²
¹*Graduate School of Engineering, Kyushu University,*
²*Department of Chemical Engineering, Faculty of Engineering, Kyushu University*
- P-40** **Employ active learning to develop the culture medium for increased cell concentration**
 Yuki Ozawa, Takamasa Hashizume, Bei-Wen Ying
School of Life and Environmental Sciences, University of Tsukuba
- P-41** **Maximizing IgG Titer of the Mammalian Cell Cultivation Process through Optimization of the Metabolic Product Contents in the Media using Artificial Intelligence/Machine Learning**
 Jooyang Park, Jiyong Yoon, Jeonghyuk Park
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- P-42** **Profiling of the N-linked glycans of IgG produced by CHL-YN cells**
 Hirotaka Kuroda^{1,2,3}, Akari Noma¹, Mayu Okajima², Kazuya Sorada¹, Noriko Yamano-Adachi¹, Junko Iida^{2,3}, Takeshi Omasa¹
¹*Grad. Sch. Eng., Osaka Univ.,* ²*Shimadzu Corp.,* ³*Shimadzu Analytical Innovation Research Lab.*
- P-43** **Knockout of Chicken *Fucosyltransferase 8* Towards The Production System of Pharmaceutical Antibodies**
 Kohei Fujiwara, Yuya Okuzaki, Ken-ichi Nishijima
Nagoya Univ.
- P-44** **The metabolic analysis of CHL-YN cell through the analysis of organic / inorganic components in culture supernatant**
 Akari Noma¹, Hirotaka Kuroda^{1,2,3}, Kazuya Sorada¹, Noriko Yamano- Adachi¹, Junko Iida^{2,3}, Takeshi Omasa¹
¹*Grad. Sch. Eng., Osaka Univ.,* ²*Shimadzu Corp.,* ³*Shimadzu Analytical Innovation Research Lab.*
- P-45** **Global Transcriptome Analysis Reveals the Potential Role of Oleacein in Lipid and Glucose Metabolism and Inflammation in Adipocytes Derived from Healthy and Diabetic Adipose Stem Cells**
 Rui Wang¹, Munkhzul Ganbold², Farhana Ferdousi^{1,3,4}, Kenichi Tominaga^{1,2}, Hiroko Isoda^{1,2,3,4}
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- P-46 Antibody Characterization Utilizing FcRn Affinity Chromatography**
Tatsuya Yumoto, Naruaki Inoue, Ryuma Ikeura, Yosuke Terao
Tosoh Co., Ltd.
- P-47 Monitoring Inline Viable Cell Density and Optimizing N-1 Perfusion Culture of CHO Cells with a Capacitance Sensor**
Kouki Kuroda, Benjamin Bayer, Gioia Tuozzolo
Takeda Pharmaceutical Company Ltd.
- P-48 The Strategy to Shorten the Cell Line Development Platform using CHO-MK cells**
Mizuki Morisasa¹, Junshin Iwabuchi^{1,2}, Takayuki Horiuchi^{1,2}
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- P-49 Process Optimization For CHO Cell Culture Using DoE Approach In Ambr15**
Miroslav Matev, **Shiori Akiyama**, Toru Tsuji, Satoshi Igarashi
Sartorius Stedim Japan K.K.
- P-50 An Approach for Uniform Cell Growth in a Three-dimensional Culture of iPS Cells Using Hollow Fibers**
Kenta Tamura¹, Hiroshi Mizumoto², Toshihisa Kajiwara²
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²*Department of Chemical Engineering, Faculty of Engineering, Kyushu University*
- P-51 Effect of Culture Oxygen Environment on In Vitro Cartilage Differentiation**
Risa Kawasaki, Kohji Nakazawa
The Univ. of Kitakyushu
- P-52 Perfusion culture of Chinese hamster lung (CHL)-YN cells in glutamine-free medium**
Sayaka Nagae¹, Hiromu Kunita¹, Noriko Yamano-Adachi^{1,2}, Takeshi Omasa^{1,2}
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- P-53 Hair Loss Preventing Potential of Botryococcus terribilis, Methylated-Meijicoccene - A Novel Bioactive Compound, And C32 Botryococcene**
Aprill Kee Oliva Mizushima^{1,2,3}, Meriem Bejaoui^{3,4}, Atsushi Hirano⁵, Takashi Arimura⁴,
Tran Ngoc Linh⁴, Eriko Uchiage⁴, Sachiko Nukaga⁵, Kenichi Tominaga⁴, Hiroyuki Nozaki⁵,
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- P-54 Manufacturing Scale Demonstration Of A Continuous Biomanufacturing Process For Antibody Production**
Hiroshi Sakuyama¹, Atsushi Inada¹, Nobuyuki Haraguchi¹, Takashi Kurosawa¹, Masayuki Haga¹, Katsuhiko Shimono¹, Junichi Kori¹, Shuhei Katayama¹, Tatsuya Matsuura¹, Yoichi Nagai¹, Shunichi Yoshida¹, Kosuke Taniguchi¹, Naomichi Hikichi¹, Leon Pybus², John Raven², Tibor Nagy², Charles Heise², Michelle Lyons², Shinichi Nakai¹
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- P-55 Development of Engineered Chicken Primordial Germ Cells for the Generation of Antibody-Producing Transgenic Chickens**
Yuya Kaneko¹, Yoshinori Kawabe¹, Ken-ichi Nishijima², Masamichi Kamihira¹
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- P-56 Pumpkin Seed Protein as a Gelatin Substitute for Cell-Based Meat Production**
Yan Kong, Dejian Huang
National University of Singapore (Suzhou) Research Institute
- P-57 High-titer rAAV Production in Bioreactors using ELEVECTA Producer Cell Lines**
Kohei Natori², J. Coronel¹, A. Al-Dali¹, A. Patil¹, K. Srinivasan¹, T. Braß¹, K. Hein¹, S. Wissing¹
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- P-58 Fabrication of hepatic tissue with mesenchymal stem cells using hollow fiber culture device**
Soutarou Shimauchi¹, Hiroshi Mizumoto², Toshihisa Kajiwara²
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- P-59 Suppressive-effect of sericin hydrolysate on glucose consumption of mammalian cells**
Naoki Shimizu¹, Yuya Murakami¹, Satoshi Terada¹, Ryo Masugi², Jun Takahashi²
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- P-60 Scalable Production of AAV Vectors in 10 L Single-Use Orbital Shaken Bioreactors Using Novel Human Amniotic Epithelial-Derived HAT Cell Lines**
Yugo Hirai^{1,2}, **Yu-Hsin Chang**^{1,2}, Kazuko Aizawa³, Arisa Yamamoto^{1,2}, Ryo Asahina^{1,2}, Rena Moromizato^{1,2}, Michi Kubota^{1,2}, Kazuaki Nakamura^{2,3}, Takayuki Horiuchi^{1,2}
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- P-61 New Technologies And New Products For Cell Culture Media In Biopharmaceutical Industry Utilizing The Function Of Amino Acids**
Aya M¹, Fumi Shozui¹, Shinya Yamaide¹, Takuya Higuchi¹, Ayane Sasaki¹, Ayaka Sato¹, Yuki Imabayashi¹, Seiichi Sato², Masashi Harada³, Chihiro Tsuji¹
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- P-62 Imaging the DNA damage response with split fluorescent protein probes**
Hidenori Kaneoka¹, Airi Watanabe², Risako Fukata², Yuki Tashiro², Shigeaki Kiyonaka²
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- P-63 Piperine Promotes Glucose Uptake In Skeletal Muscle Via CaMK2/AMPK Pathway**
Yoshito Onishi, Yoko Yamashita, Hitoshi Ashida
Kobe Univ.
- P-64 Investigation of Genome Packaging-Related Factors of AAV Vectors in the Novel Human Amniotic Epithelial-Derived HAT Cell Lines for Host Cell Development**
Ryo Asahina^{1,2}, Yugo Hirai^{1,2}, Yu-Hsin Chang^{1,2}, Arisa Yamamoto^{1,2}, Rena Moromizato^{1,2},
 Michi Kubota^{1,2}, Takayuki Horiuchi^{1,2}
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- P-65 Construction of production system using CHO cells for chimeric HBsAg-VLPs presenting SARS-CoV-2 T-cell epitope**
Yuki Morishita, Nam Seoyeon, Thao Bich Nguyen, Guirong Kanai, Noriko Yamano-Adachi,
 Takeshi Omasa
Graduate School of Engineering, Osaka University, Japan
- P-66 Analysis of metastasis suppression effects of extracellular vesicles derived from Nanog-overexpressing melanoma cells by in vitro test using an immune cell system and by miRNA sequencing**
Noa Katayama, Misato Nakano, Asuka Tamura, Mikako Saito
Tokyo University of Agriculture and Technology
- P-67 Improvement Of The Secretary Pathway In Chinese Hamster Ovary Cells For High Production Of Biologicals**
Yurina Fujita^{1,2}, Junta Shimada^{1,2}, Ryo Misaki², Hiroyuki Kajiura², Kazuhito Fujiyama²
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- P-68 Increased lentivirus titer using ultra expression vectors**
So Fujibayashi¹, Tohru Kiyono², Yuka Endo¹, Tetsuya Tani³, Haruka Tate¹, Lanlan Bai¹,
 Eriko Sugano¹, Hiroshi Tomita¹, Tomokazu Fukuda¹
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- P-69 Hsp α Is Upregulated In CHO Cells Exposed To Hyperosmolality**
Mikiko Nakano^{1,2}, Ryo Misaki², Hiroyuki Kajiura², Kazuhito Fujiyama²
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²*International Center for Biotechnology, Osaka University*
- P-70 Polypropylene glycol and high molecular weight impurity detection in poloxamer 188**
Damien Bellos, **Atsuya Wakabayashi**
Cytiva
- P-71 Precision cell culture media manufacturing with trace metal and amino acid control**
Nathan Israesen, **Christopher Woolstenhulme**
Cytiva

P-72 Search and Analysis of Flavonoids Upregulating Urate Transporter ABCG2

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P-73 Microarray Analysis Reveals Regulatory effects of isorhamnetin on cell cycle and mitochondrial function of cancer-associated fibroblasts (CAFs) derived from pancreatic ductal adenocarcinoma (PDAC)

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P-74 Analysis of Natural Compounds that Regulate Intestinal Epithelial Glucose Transporter SGLT1 and GLUT5

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P-75 Investigation of intracellular secretory process in Sar1A-overexpressed CHO cells for further improvement of IgG productivity

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