

JAACT2008 Fukuoka

The 21st Annual and International Meeting of the
Japanese Association for Animal Cell Technology

POWER OF CELLS

Animal Cell Technology in Bioscience, Bioengineering
and Bioindustries

Program

November 24(Mon) to 27(Thu), 2008
Fukuoka, Japan

JAACT2008 Organizing Committee

Meeting Chairman:

Masamichi KAMIHIRA (Kyushu University, JAPAN)

Meeting Vice Chairman:

Yoshinori KATAKURA (Kyushu University, JAPAN)

Meeting Secretaries:

Akira ITO (Kyushu University, JAPAN)

Hiroyuki IJIMA (Kyushu University, JAPAN)

Hiroshi MIZUMOTO (Kyushu University, JAPAN)

Kiichiro TERUYA (Kyushu University, JAPAN)

Yoshinori KAWABE (Kyushu University, JAPAN)

Organizing Boards:

P.M. Alves (Portugal)

K. Dairiki (Japan)

Y. Fuke (Japan)

S. Hashizume (Japan)

M. Hosobuchi (Japan)

K. Ikura (Japan)

M. Kamei (Japan)

T. Kuwata (Japan)

T. Matsumoto (Japan)

M. Nagao (Japan)

T. Omasa (Japan)

T. Shigehisa (Japan)

H. Shinmoto (Japan)

M. Tanokura (Japan)

H. Tsukamoto (Japan)

M. Yokota (Japan)

H. Anazawa (Japan)

D. Ejima (Japan)

Y. Fukui (Japan)

C. Hirashima (Japan)

H. Hoshi (Japan)

H. Isoda (Japan)

Y. Kamei (Japan)

M. Maeda-Yamamoto (Japan)

T. Matsushita (Japan)

H. Nakano (Japan)

M. Sato (Japan)

M. Shimizu (Japan)

M. Takagi (Japan)

M. Totsuka (Japan)

H. Tsumura (Japan)

S. Asahi (Japan)

A. Enomoto (Japan)

S. Hachimura (Japan)

T. Hisatsune (Japan)

S. Iijima (Japan)

T. Kadowaki (Japan)

S. Kida (Japan)

T. Matsuda (Japan)

Y. Miura (Japan)

K. Nishijima (Japan)

H. Satsu (Japan)

S. Shirahata (Japan)

Y. Taniyama (Japan)

M. Tsukahara (Japan)

K. Yagasaki (Japan)

Advisory Boards:

D. W. Barnes (USA)

R. Sasaki (Japan)

J. Werenne (Belgium)

S. Kaminogawa (Japan)

G. H. Sato (USA)

K. Nagai (Japan)

T. Suzuki (Japan)

JAACT 2008 Secretariat

c/o Dept. of Chemical Engineering, Faculty of Engineering, Kyushu University

744 Motooka, Nishi-ku, Fukuoka, 819-0395, JAPAN

E-mail: jaact2008@jaact.org, URL: <http://jaact2008.jaact.org/>

FAX: +81-92-802-2793

Schedule

	Nov. 24 (Mon)	Nov. 25 (Tue)	Nov. 26 (Wed)	Nov. 27 (Thu)
Morning		9:10-9:50 Plenary Lecture 1: Prof. Kazutoshi Takahashi 10:00-12:00 Symposium 1: "Stem Cells: Culture Technology to Clinical Application -Yasuo Kitagawa Memorial Symposium-"	9:10-9:50 Plenary Lecture 2: Prof. Hugh Rosen 10:00-12:15 Symposium 5: "Nutrigenomics: Lipid Metabolism and Cancer Prevention"	9:00-11:15 Symposium 8: "Challenges on Down Stream Process Development for Biologics" 11:15-12:15 Technical Seminars
Lunch Time		12:15-13:00 Luncheon Seminar 1	12:15-13:00 Luncheon Seminar 2	12:15-13:00 Luncheon Seminar 3
Afternoon	13:30- Registration 15:00-15:10 Opening Remarks 15:10-15:40 Murakami Memorial Lecture Dr. Gordon H. Sato 15:50-16:30 ESACT Keynote Lecture: Dr. Paula Marques Alves 16:40-18:20 ESACT Symposium: "From Molecules and Genes to Therapies: Industrial ACT Perspectives"	13:15-15:15 Symposium 2: "Innovation for Tissue Engineering of Metabolic Organs" 15:15-17:15 Symposium 3: "Cell Engineering – from Omics to Cell Culture Processes" 17:15-17:30 Coffee Break 17:30-19:00 Symposium 4: "Water and Life"	13:15-15:15 Symposium 6: "Recent Progress in Cell Culture Process Development" 15:15-17:15 Symposium 7: "Novel Production System for Biologics" 17:15-18:45 Coffee Break and Poster Viewing	13:15-16:39 Oral Presentations 16:40-16:45 Closing Remarks
Evening	18:30-20:00 Get-Together Party		19:00-21:00 Banquet	

Information

Official Language: English

Conference Venue:

The JAACT 2008 will be held at the Fukuoka International Congress Center in Fukuoka, Japan.

Fukuoka International Congress Center

2-1 Sekijo-machi, Hakata-ku, Fukuoka City, 812-0032 Japan

Tel.81-92-262-4111, Fax.81-92-262-4701

<http://www.marinemesse.or.jp/eng/index.html>

Access to Fukuoka



Japan



Fukuoka city



Clothing:

Informal for all occasions (Temperature in November: 10-18°C)

Registration:

Registration can be done through the online system in the JAACT 2008 web-site (<http://jaact2008.jaact.org>)

Registration Fees are as follows:

<i>Registration Fees</i>	Before September 15, 2008	After September 16, 2008
JAACT/ESACT member	40,000 JPY	60,000 JPY
Non-member (Foreign)	40,000 JPY	80,000 JPY
Non-member (Domestic)	80,000 JPY	80,000 JPY
Student	20,000 JPY	30,000 JPY
Accompanying person	20,000 JPY	30,000 JPY

The above fee includes attendance at all scientific sessions in JAACT2008 Fukuoka, one copy of an abstract book, coffee breaks, a get-together party and a banquet. Please note that the fee DOES NOT include hotel expenses for the duration of the meeting. Accompanying persons are welcome to participate in the get-together party and banquet, but are not permitted to attend either the scientific sessions or the trade exhibition.

Oral presentation

Each of general oral presentations will be done in 12 min including discussion time. Multimedia projector (for Windows after windows 98 and Mac after Mac OS9.2 only) will be available. Please prepare your slides by using "PowerPoint" and bring them in the form of USB corresponding Flash memory or CD-ROM to the reception desk for oral sessions (PC preview desk) more than 1 hour prior to your presentation.

Poster presentation

A board of W90 x H200 cm will be available for each poster from 16:00 November 24 (Mon). Please mount your poster before 10:00 a.m. November 25 (Tue). Poster discussion time will be set in the late afternoon of November 26 (Wed). Posters must be removed before 7:00 p.m. November 26 (Wed).

Proceedings of JAACT2008 Fukuoka

The proceedings of the JAACT2008 Fukuoka will be published from Springer. Participants who give plenary lecture, symposium, oral or poster presentations are requested to prepare the photo-copiable full paper of 7 pages, and to hand it the registration desk during the meeting in order to publish the proceedings rapidly. Please submit the manuscript in the form of a Microsoft Word file and a hardcopy to JAACT2008 Secretariat. Instruction for preparing the manuscript will be found in the home page of the JAACT 2008 Fukuoka.

Lunch

November 25 (Tue), 26 (Wed), 27 (Thu)

Lunch boxes will be served in Luncheon Seminar Room (Main Hall).

Social Events

November 24 (Mon)

Get-together party with cocktail buffet will be held at Restaurant "Raconter" (1F).

November 26 (Wed)

Banquet will be held at Fukuoka Sun Palace "Palace Room" (2F).

Exhibition

A trade exhibition of instruments, facilities, reagents and books will be held at Exhibition Hall (5F) from Nov. 25 (Tue) to 27 (Thu).

Luncheon Seminars

Luncheon Seminars will be held in Main Hall.

Official Agent for JAACT2008:

All inquiries in this regard should be sent to the following address:

JTB Kyushu Corp., Fukuoka Office

Kyushu Event Convention Center

JAACT2008 Desk

ShinKBC Bldg. 2F, 1-1-35 Nagahama, Chuo-ku, Fukuoka 810-0072 Japan

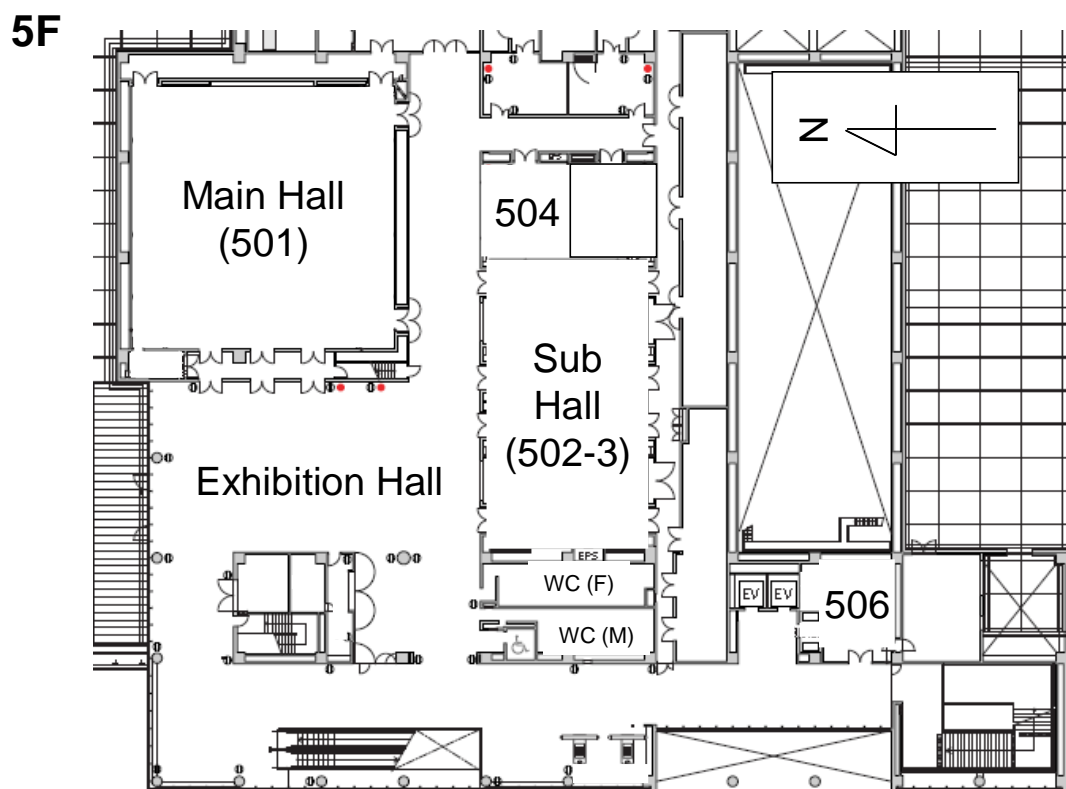
Fax: +81-92-751-9200

E-mail: k_akizuki424@jtb.jp

Office Hours: 9:30-17:30 (weekdays only)

Room Guide

Fukuoka International Congress Center



Main Hall (501): Plenary Lectures, Murakami Memorial Lecture, ESACT Keynote Lecture, ESACT Symposium, Symposia, Luncheon Seminars
Technical Seminars, Oral Presentations (O-1 – O-17)

Sub Hall (502-3): Oral Presentations (O-18 – O-30), Poster Presentations

Exhibition Hall: Trade Exhibition, Free Coffee

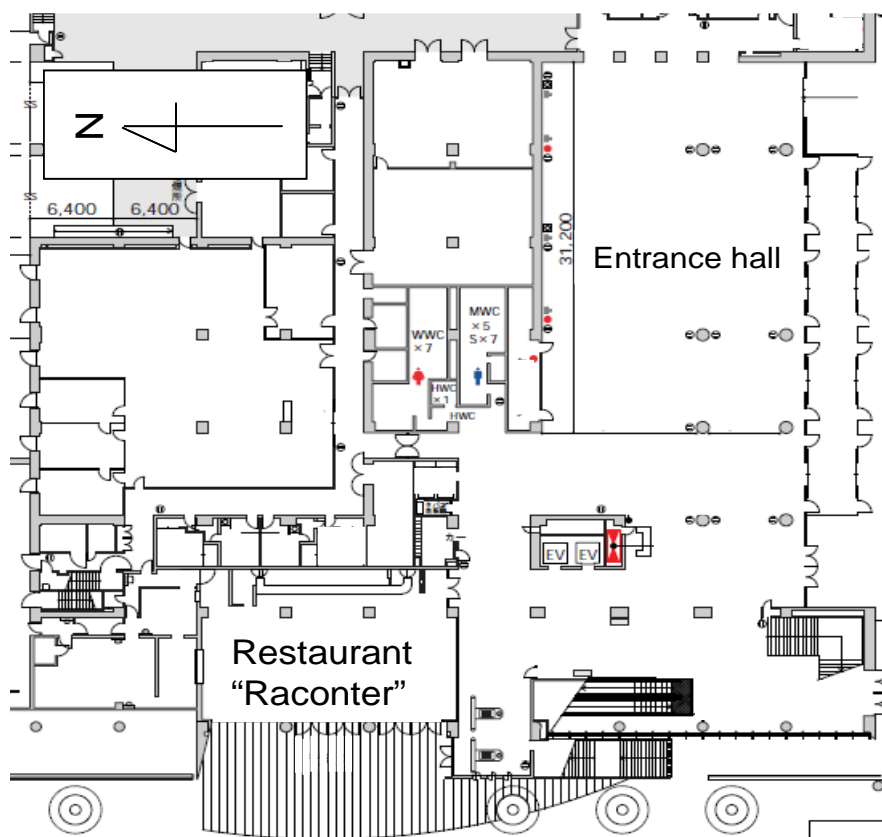
Conference Room (504): Secretariat

Conference Room (506): Cloakroom

4F

Conference Room (409): Board Meeting

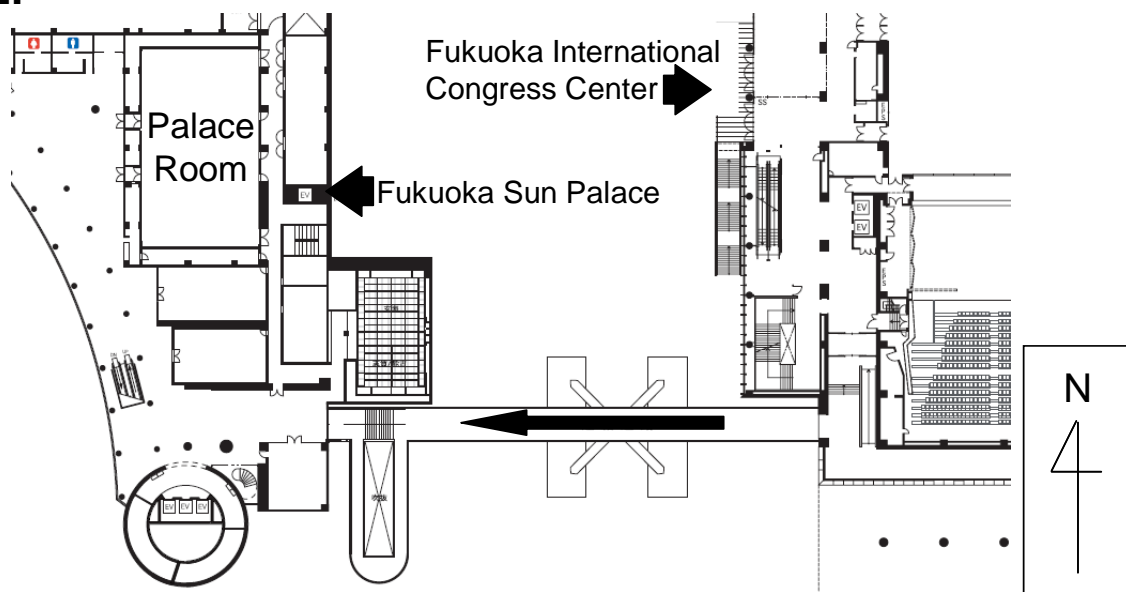
1F



Restaurant "Raconter": Get-Together Party

Fukuoka Sun Palace

2F



Fukuoka Sun Palace "Palace Room": Banquet

Sponsors

- Commemorative Organization for the Japan World Exposition '70
- The Fukuoka Convention & Visitors Bureau
- Thermo Fisher Scientific K.K.
- The Kao Foundation for Arts and Sciences

Program

[Monday, November 24]

- 13:30- Registration**
- 15:00-15:10 Opening Remarks**
- 15:10-15:40 Murakami Memorial Lecture**
 Chairperson: Sanetaka Shirahata (Kyushu University, Japan)
 MML Gordon H. Sato (Manzanar Project, USA)
 “Tissue culture, the unrealized potential”
- 15:50-16:30 ESACT Keynote Lecture**
 Chairperson: Leda Castilho (Federal University of Rio de Janeiro - COPPE, Brazil)
 EKL Paula Marques Alves (ITQB/IBET, Portugal)
 “Bioengineering of primary cultures and stem cells”
- 16:40-18:10 ESACT Symposium**
“From Molecules and Genes to Therapies: Industrial ACT Perspectives”
 Organizer: Paula M. Alves (ITQB)
- 16:40 ES-1** Ashraf Amanullah (Genentech, USA)
 “Advanced tools for efficient cell culture process development”
- ES-2** Canceled
- 17:10 ES-3** Manuel Carrondo (New University of Lisbon, Portugal)
 “Intracellular kinetics of virus like particles formation”
- 17:40 ES-4** Leda Castilho (Federal University of Rio de Janeiro - COPPE, Brazil)
 “Cell retention devices for animal cell perfusion processes”
- 18:30-20:00 Get-Together Party**

[Tuesday, November 25]**9:10-9:50 Plenary Lecture 1**

Chairperson: Masamichi Kamihira (Kyushu University, Japan)

- PL1 Kazutoshi Takahashi (Kyoto University, Japan)
 “Induction of pluripotency by defined factors”

10:00-12:00 Symposium 1

“Stem Cells: Culture Technology to Clinical Application –Yasuo Kitagawa Memorial Symposium–”

Organizers: Hirofumi Nakano (Kitasato Inst.) and Tatsuhiko Kadowaki (Nagoya Univ.)

- 10:00** S1-1 Kazuhiro Toriyama, Yuzuru Kamei and Shuhei Torii (Nagoya University, Japan)
 “Adipose tissue derived stem cells and memory of Yasuo Kitagawa”
- 10:30** S1-2 Kazuhiro Sakurada (Sony Computer Science Laboratories, Inc., Japan)
 “From human adult stem cell culture technology to human iPS cell technology”
- 11:00** S1-3 Masayo Takahashi (Riken, Japan)
 “Strategies to rescue retinal function using stem cells”
- 11:30** S1-4 Minoru Ueda (Nagoya University, Japan)
 “The future possibilities of teeth pulp stem cell and its clinical application”

12:15-13:00 Luncheon Seminar 1 by NICHIREI BIOSCIENCES INC**13:15-15:15 Symposium 2**

“Innovation for Tissue Engineering of Metabolic Organs”

Organizers: Hiroyuki Ijima (Kyushu Univ.), Hiroshi Mizumoto (Kyushu Univ.), and Taku Matsushita (Sojo Univ.)

- 13:15** S2-1 Nobuyoshi Shiojiri (Shizuoka University, Japan)
 “Purification of hepatoblasts from fetal mouse livers by using a temperature-reversible gelation polymer and their application in regenerative medicine”
- 13:45** S2-2 Pi-Chao Wang and Yusuke Murasawa (Tsukuba University, Japan)
 “Type V collagen fibrils play a role in regulating cellular microenvironment during the transition stages of kidney tissue formation”
- 14:15** S2-3 Yadong Wang (University of Pittsburgh, USA)
 “Highly biocompatible synthetic polymers for tissue engineering”
- 14:45** S2-4 Kazuo Ohashi (Tokyo Women's Medical University, Japan)
 “Hepatocyte engineering and liver tissue engineering in mice”

15:15-17:15 Symposium 3**“Cell Engineering – from Omics to Cell Culture Processes”**

Organizers: Takeshi Omasa (Osaka Univ.) and Masayoshi Tsukahara (Kyowa Hakko Kirin Co., Ltd.)

- 15:15** S3-1 David C. James (The University of Sheffield, UK)
 “The mammalian cell factory: the route from systems biology to cell engineering”
- 15:45** S3-2 Shigeomi Shimizu (Tokyo Medical and Dental University, Japan)
 “Multiple mechanisms of cell death and their regulation by Bcl-2”
- 16:15** S3-3 Hiroyuki Kurata (Kyushu Institute of Technology, Japan)
 “Computer aided rational design of biochemical systems”
- 16:45** S3-4 Takeshi Omasa (Osaka University, Japan)
 “Chinese hamster ovary (CHO) bacterial artificial chromosome (BAC) library –its application in CHO genome analysis”

17:15-17:30 Coffee Break**17:30-19:00 Symposium 4****“Water and Life”**

Organizer: Sanetaka Shirahata (Kyushu Univ.)

- 17:30** S4-1 Tsutomu Nakada (Niigata University, Japan; California University, Davis, USA)
 “Brain science of water molecules”
- 18:00** S4-2 Sanetaka Shirahata (Kyushu University, Japan)
 “Recent advance on reduced water for prevention of oxidative stress-related diseases”
- 18:30** S4-3 Masaaki Nakayama (Tohoku University, Japan)
 “Clinical application of electrolyzed water to hemodialysis treatment. From bench to bedside”

[Wednesday, November 26]**9:10-9:50 Plenary Lecture 2**

Chairperson: Makoto Shimizu (The University of Tokyo, Japan)

PL2 Hugh Rosen (The Scripps Research Institute, USA)

“Sphingosine 1-phosphate receptor therapeutics”

10:00-12:15 Symposium 5**“Nutrigenomics: Lipid Metabolism and Cancer Prevention”**

Organizer: Hiroshi Shinmoto (Tamagawa Univ.)

10:00 S5-1 Thomas Wang (Beltsville Human Nutrition Research Center, USDA, USA)

“DNA microarray in nutrigenomics and cancer prevention research: Elucidating molecular signatures of cancer preventive phytochemicals”

10:25 S5-2 Yoko Takahashi (National Food Research Institute, Japan)

“Dietary soy components and lipid metabolism - analysis of gene expressions”

10:50 S5-3 Jun Shimizu (Josai University, Japan)

“Evaluation of the effect of dietary intake of crude rice glycosphingolipids in mice by DNA microarray technology”

11:15-11:25 Break

11:25 S5-4 Taesun Park and Ha Won Kim (Yonsei University, Korea)

“A novel compound of plant origin reduces diet-induced obesity through increased uncoupling protein expression in the visceral adipose tissue of mice”

11:50 S5-5 Satoshi Ishii (Obihiro University of Agriculture and Veterinary Medicine, Japan)

“Anti-inflammatory activity of buckwheat sprouts in lipopolysaccharide-activated human cells and mice”

12:15-13:00 Luncheon Seminar 2 by IS Japan Co., Ltd.**13:15-15:15 Symposium 6****“Recent Progress in Cell Culture Process Development”**

Sponsored by Thermo Fisher Scientific K. K.

Organizers: Takeshi Omasa (Osaka Univ.) and Masayoshi Tsukahara (Kyowa Hakko Kirin Co., Ltd.)

13:15 S6-1 Yoko Maseki, Akiko Shimanuki, Ikuko Kitazumi, Yumi Sugitam Yoshiko Nomura and Masayoshi Tsukahara (Kyowa Hakko Kirin Co., Ltd., Japan)

“Improvement of CHO cell culture by genetic modification”

13:45 S6-2 Yung-shyeng Tsao, Ankit A. Merchant, Zhong Liu, Marsha Smith, Duane Levitan and Eric Gustafson (Schering-Plough Research Institute, USA)

“Characterization of Chinese hamster ovary (CHO) cells for the production of

monoclonal antibodies using DNA microarray technology”

14:15 S6-3 Hisahiro Tabuchi (Chugai Pharmaceutical, Co., Ltd. Japan)
“Novel strategies to improve cell viability and production titer”

14:45 S6-4 Sadettin Ozturk (Centocore R&D/Johnson & Johnson, USA)
“Cell culture technology: a historical and futuristic perspective”

15:15-17:15 **Symposium 7**

“Novel Production System for Biologics”

Organizers: Haruhiko Tsumura (Kyowa Hakko Kirin Co., Ltd.), Chikashi Hirashima (Chugai Pharmaceutical Co., Ltd.), and Hiroko Tsukamoto (Asahi Glass Co., Ltd.)

15:15 S7-1 Kazuhisa Uchida (Kyowa Hakko Kirin Co., Ltd., Japan)
“The establishment of Potelligent technology and its impact for antibody production”

15:45 S7-2 Marco A. Cacciuttolo (PERCIVIA LLC, USA)
“PER.C6 cells: A highly efficient production platform for protein therapeutics”

16:15 S7-3 Masahiro Tomita (NeoSilk Co., Ltd., Japan)
“Transgenic silkworms that weave recombinant proteins into cocoons”

16:45 S7-4 Yoshimi Kuroiwa, Poothappillai Kasinathan, Isao Ishida and James M. Robl (Kyowa Hakko Kirin Co., Ltd., Japan, Hematech, USA)
“Production of human polyclonal antibodies in cattle”

17:15-18:45 **Coffee Break and Poster Viewing**

19:00-21:00 **Banquet**

[Thursday, November 27]

- 9:00-11:15** **Symposium 8**
“Challenges on Down Stream Process Development for Biologics”
Organizers: Haruhiko Tsumura (Kyowa Hakko Kirin Co., Ltd.), Chikashi Hirashima
(Chugai Pharmaceutical Co., Ltd.), and Hiroko Tsukamoto (Asahi Glass Co., Ltd.)
- 9:00** S8-1 Pete Gagnon (Validated Biosystems, USA)
“Challenges in product capture from cell culture supernatant”
- 9:25** S8-2 Bjorn Hammarberg (ABD Life Sciences Ltd., Hong Kong)
“More affordable MAb purification processes using two-step chromatography
ensuring low COG”
- 9:50** S8-3 Masahiro Iwakura, Kiyonori Hirota, and Shinya Honda (National Institute of Advanced
Industrial Science and Technology, Japan)
“Improvements of downstream process for biologicals through re-design of affinity
ligands”
- 10:15-10:25** Break
- 10:25** S8-4 Oliver Kaltenbrunner (Amgen, USA)
“Application of chromatography theory for quality-by-design”
- 10:50** S8-5 Shuichi Yamamoto (Yamaguchi University, Japan)
“Do chromatography models help you understand, design, operate and validate your
purification process?”
- 11:15-12:15** **Technical Seminars**
- 11:15** TS-1 Netwell Corporation
- 11:35** TS-2 Nippon Becton Dickinson Company, Ltd.
- 11:55** TS-3 TAITEC Corporation
- 12:15-13:00** **Luncheon Seminar 3 by Invitrogen Japan K.K.**
- 13:15-16:39** **Oral Presentations**
- | | |
|--------------------|--------------------|
| (Main Hall) | (Sub Hall) |
| O-1 – O-17 | O-18 – O-30 |
- 16:40-16:45** **Closing Remarks**

Oral Presentations: November 27 (Thu)**Sessions 1 – 4 (O-1 – O-17/ 13:15 – 16:39/ Main Hall)****Session 1 “Transgenic animals” (O-1 – O-3/ 13:15 – 13:51)****Chairperson: R. Kato (Nagoya University, Japan)**

- 13:15 O-1 C. A. Penno, Y. Kawabe, A. Ito and M. Kamihira (Kyushu University, Japan)
“Generation of genetically manipulated chickens producing human erythropoietin/Fc fusion protein”
- 13:27 O-2 A. Mizutani, T. Sasamoto, Y. Kojima, J. Kojima, Y. Inayoshi, K. Nishijima, K. Miyake and S. Iijima (Nagoya University, Japan)
“Improvement of galactosylation in egg white proteins by genetic engineering of chickens”
- 13:39 O-3 Y. Inayoshi, Y. Okino, Y. Kinoshita, K. Imamura, M. M. Morhed, J. Yamamoto, K. Nishijima, K. Miyake and S. Iijima (Nagoya University, Japan)
“Functional interaction between transcription factor YY1 and preintegration complex of retrovirus and its physiological roles”

Session 2 “Cell culture engineering” (O-4 – O-8/ 13:51 – 14:51)**Chairperson: A. Kumar (Indian Institute of Technology Kanpur, India)**

- 13:51 O-4 Y. Cao, H. Yano, H. S. M. Ali, S. Kimura, K. Honda, T. Omasa and H. Ohtake (Osaka University, Japan)
“Construction of a BAC-based chromosome map for Chinese hamster ovary DG44 cell”
- 14:03 O-5 M. Mel, M. A. Arifin, R. A. Raus, S. S. Hassan and A. Ideris (IIUM, Malaysia)
“The study of DF-1 cell growth in microcarrier based bioreactor”
- 14:15 O-6 M. Mel, M. A. Arifin, M. I. A. Karim, S. S. Hassan and A. Ideris (IIUM, Malaysia)
“Process capability analysis of DF1 cell culture in bioreactor: a case study of pH and pO₂ control”
- 14:27 O-7 M. Mel, M. I. A. Karim, J. N. Ja’afar, S. S. Hassan and A. Ideris (IIUM, Malaysia)
“NDV vaccine production: a comparative study of virus titer in different types of bioreactors”
- 14:39 O-8 B. Lee, Y. Hashimura, D. Giroux, Y. Park, J. Kim, J. Kim, D. Oh, K. Kim, B. Lumani and D. Eibl (PBS Biotech, Inc., USA)
“Development of novel, disposable bioreactors using a pneumatic mixing mechanism”

Session 3 “Cell culture engineering / Animal cells for in vitro assay” (O-9 – O-14/ 14:51 – 16:03)**Chairperson: Y. Katakura (Kyushu University, Japan)**

- 14:51 O-9 A. Kumar (Indian Institute of Technology Kanpur, India)
“Macroporous cryogel matrices for application in cell culture technology”
- 15:03 O-10 R. Kato, W. Yamamoto, Y. Nagura, H. Kagami, K. Ebisawa, M. Ueda, M. Kino-oka, M. Taya and H. Honda (Nagoya University, Japan)
“Application of informatic models to predict cell activity for non-invasive quality control”

- 15:15 O-11 M. Takagi, T. Kitabayashi, S. Ito, M. Fujiwara and A. Tokuda (Hokkaido University, Japan)
“Noninvasive estimation of cell cycle phase of adherent Chinese hamster ovary cells by measurement of three-dimensional morphology employing phase-shifting laser microscope”
- 15:27 O-12 S. Koyama and M. Aizawa (Extremobiosphere Research Center, Japan)
“Pressure-tolerance of the cytoskeletal structure in cultured deep-sea fish cells using DNA transfection and protein introduction techniques”
- 15:39 O-13 M. Ishido (National Institute for Environmental Studies, Japan)
“Evaluation of neurotoxicity of environmental chemicals using neural stem cells and neuroblastoma cells”
- 15:51 O-14 A. Oyama, A. Hosono, T. Yanagibashi, M. Tsuda, S. Hachimura, Y. Takahashi, K. Itoh, K. Hirayama, K. Takahashi and Shuichi Kaminogawa (Nihon University, Japan)
“Comparison of immunoglobulin A induction by commensal bacteria *Bacteroides* and *Lactobacillus*”

Session 4 “Cell regulatory factors and signal transduction” (O-15 – O-17/ 16:03 – 16:39)

Chairperson: Y. Miura (Tokyo University of Agriculture and Technology, Japan)

- 16:03 O-15 K. Kurogi, Y. Sakakibara, S. Yasuda, M.-C. Liu, M. Suiko (University of Miyazaki, Japan)
“Molecular cloning and characterization of a novel canine sulfotransferase”
- 16:15 O-16 Y. Ishimoto, H. Satsu, T. Mochizuki, M. Totsuka and M. Shimizu (The University of Tokyo, Japan)
“*In vitro* analysis of the interaction between human intestinal epithelial cells and macrophage-like cells”
- 16:27 O-17 Y. Mizuguchi, A. Yamamoto, M. Hattori, T. Yoshida (Tokyo University of Agriculture and Technology, Japan)
“Role of ubiquitination promoted during restimulation in the induction of T cell anergy.”

Sessions 5 – 7 (O-18 – O-30/ 13:15 – 15:51/ Sub Hall)

Session 5 “Functional substances in food and natural sources” (O-18 – O-22/ 13:15 – 14:15)

Chairperson: M. Takagi (Hokkaido University, Japan)

- 13:15 O-18 S. Tsolmon, Y. Kurita, P. Yamada, H. Shigemori and H. Isoda (University of Tsukuba)
“Indole acetic acid faltarindiol ester induces granulocytic differentiation of human leukemia cell line HL-60”
- 13:27 O-19 S. Tsolmon, P. Yamada, H. Isoda (University of Tsukuba, Japan)
“Effect of Mongolian medicinal plant *Stellera chamaejasme* on human chronic leukemia cells K562”
- 13:39 O-20 J. Han, H. Isoda (University of Tsukuba, Japan)
“Capsaicin induced the upregulation of transcriptional and translational expression of glycolytic enzymes related to energy metabolism in human intestinal epithelial cells”
- 13:51 O-21 M. Orlina-Villareal, Y. Miyamae, J. Han, P. Yamada, H. Shigemori and H. Isoda (University of Tsukuba, Japan)

“Inhibitory effect of new daphnane diterpenoids from Tunisian *Thymelaea hirsuta* on melanogenesis”

- 14:03 O-22 H. Yan, H. Tian, T. Hamasaki, M. Abe, N. Nakamichi, K. Teruya, Y. Katakura, S. Morisawa and S. Shirahata (Kyushu University, Japan)
“Elongation of lifespan of nematode by electrolyzed reduced water”

Session 6 “Functional substances in food and natural sources” (O-23 – O-26/ 14:15 – 15:03)

Chairperson: S. Koyama (Extremobiosphere Research Center, Japan)

- 14:15 O-23 Y. Matsuda, K. Teruya, S. Matsuda, A. Nakano, T. Nishimoto, M. Ueno, K. Shirouzu, M. Yamashita, H. Eto, Y. Katakura and S. Shirahata (Kyushu University, Japan)
“Anti-cancer effects of enzyme-digested fucoidan extract from seaweed *Mozuku*”
- 14:27 O-24 N. Shaheen, M. Goto, J. Watanabe and Y. Takano-Ishikawa (National Food Research Institute, Japan)
“*In vitro* screening of the selected indigeneous food of Bangladesh for anti-inflammatory and anti-allergic activities”
- 14:39 O-25 M. Minakawa, A. Kawano, Y. Miura and K. Yagasaki (Tokyo University of Agriculture and Technology, Japan)
“Hypoglycemic action of resveratrol *in vitro* and *in vivo*”
- 14:51 O-26 S. Yoshida, A. Koizumi, Y. Miura and K. Yagasaki (Tokyo University of Agriculture and Technology, Japan)
“Modes of actions for anti-invasive activity of tocotrienols against hepatoma cells in culture”

Session 7 “Glycoengineering / Immunologicals, monoclonal antibodies, and vaccines” (O-27 – O-30/ 15:03 – 15:51)

Chairperson: K. Nishijima (Nagoya University, Japan)

- 15:03 O-27 S.-M. Kim, J.-H. Park and D.-J. Oh (Sejong University, Korea)
“Differential glycosylation of recombinant antibodies produced from rCHO cells”
- 15:15 O-28 M. Amano, M. Yamaguchi, Y. Takegawa, T. Yamashita, J. Furukawa, Y. Miura and S. Nishimura (Hokkaido University, Japan)
“Quantitative glycomics during differentiation in derivatives of mouse embryonal carcinoma P19 cells”
- 15:27 O-29 H. Murakami, S. Hachimura, K. Tanabe, H. Nakajima-Adachi, S. Hamaguchi, W. Ise, R. Sato, A. Hosono, S. Kaminogawa (Nihon University, Japan)
“Expression pattern of CD62L/CD44 and regulatory function of T cells induced by oral administration of antigen: evaluation using a food allergy model”
- 15:39 O-30 T. Konno, A. Hosono, Y. Hiramatsu, S. Hachimura, K. Takahashi and S. Kaminogawa (Nihon University, Japan)
“Comparison of immunoresponses between cecal patch cells and Peyer's patch cells stimulated by bacterial components”

Poster Presentations: November 24 (Mon) – 27 (Thu)**Cell culture engineering (P-1 – P-33)**

- P-1 M. Inamori, H. Mizumoto and T. Kajiwara (Kyushu University, Japan)
“Integration of endothelial cell-covered hepatocyte spheroids for construction of vascularized liver tissue”
- P-2 T. Anderlei, M. Kuhner, M. Stettler, M. De Jesus, J. Buechs and F. Wurm (Adolf Kuhner AG, Switzerland)
“Shaken bioreactors in the field of cell cultivation”
- P-3 M. Yamanaka, S. Nakamura, A. Inoue, T. Yasuda, Y. Inoue and H. Kawahara (Kyusyu Institute of Technology, Japan)
“Characterization of cell-sized vesicles induced from human lymphoid cell lines”
- P-4 M.-H. Kim, M. Kino-oka, J. Miyazaki and M. Taya (Osaka University, Japan)
“Dendrimer-immobilized culture surface as a tool to promote aggregate formation of anchorage-dependent cells”
- P-5 Y. -T. Hou, T. Takei, S. Sakai, H. Ijima and K. Kawakami (Kyushu University, Japan)
“Effect of immobilized hepatocyte growth factor on albumin secretion and spheroid formation of hepatocyte in 2-dimensional culture”
- P-6 J. C. Kim, J. H. Seong, B. Lee, Y. Hashimura, K. N. Kim and D. J. Oh (Sejong University, Korea)
“Development and application of novel disposable bioreactor system for production of recombinant protein from recombinant Chinese hamster ovary cells”
- P-7 T. Takami, T. Ohya, H. Miki, K. Honda, T. Omasa and H. Ohtake (Osaka University, Japan)
“Improvement of production of recombinant human antithrombin III by *AFT4* or *GADD34* overexpression”
- P-8 M. Fujiwara, R. Tsukada, Y. Tsujinaga and M. Takagi (Hokkaido University, Japan)
“Fetal calf serum-free culture of Chinese hamster ovary cells employing fish serum”
- P-9 Y. Imamoto, H. Tanaka, K. Takahashi, Y. Konno and T. Suzawa (Kyowa Hakko Kirin Co., Ltd., Japan)
“Advantage of ALA-GLN as an additive to cell culture medium”
- P-10 A. Sakuma (JST Innovation Satellite Shiga, Japan)
“Effect of sericin on stirred culture of animal cells”
- P-11 J. M. Lee, J. Hwang-Bo, K. H. Yoo, H. Y. Chung, J. M. Yang and I. S. Chung (Kyung Hee University, Korea)
“Physiological and biochemical characteristics of metabolically engineered *Trichoplusia ni* BTI Tn5B 1-4 cells”
- P-12 Y. Takagi, J. Y. Park, H. Yano, K. Honda, T. Omasa and H. Ohtake (Osaka University, Japan)
“Analysis of the chromosomal region flanking the Dhfr gene in gene-amplified CHO cell line”
- P-13 B. T. Tey, K. C. Yap, H. Yamaji, A. M. Ali and W. S. Tan (Universiti Putra Malaysia, Malaysia)
“Supplementation of phosphatidylcholine protects the hybridoma cells from apoptosis induced by serum withdrawal”

- P-14 B. T. Tey, S. L. Chong, D. G. Mou, S. H. Lim and A. M. Ali (Universiti Putra Malaysia, Malaysia)
“Monoclonal antibody productivity of hybridoma cells under active hypothermic growth condition”
- P-15 K. Kodaira, S. Takuma and C. Hirashima (Chugai Pharmaceutical Co., Ltd., Japan)
“Metabolome analysis using mass spectrometry for cell culture engineering”
- P-16 T. Sugiyama, H. Tabuchi, S. Tanaka, S. Tainaka and Y. Watanabe (Chugai Pharmaceutical Co., Ltd., Japan)
“Overexpression of taurine transporter mediates enhanced cell viability and production titer by active uptake of glutamine into CHO cells”
- P-17 A. Ohshima, Y. Takamatsu, K. Yamamoto and H. Saitoh (Kyowa Hakko Kirin Co., Ltd., Japan)
“Efficient selection of cell clones with higher productivity in manufacturing recombinant human monoclonal antibody”
- P-18 T. Hayashi, S. Oguchi, S. Hira, A. Oshima, T. Nakagawa, N. Matsunaga, K. Kano and H. Saitoh (Kyowa Hakko Kirin Co., Ltd., Japan)
“Establishment of the scale-down model for cell culture process development”
- P-19 S. Y. Kim, J. H. Park and D. J. Oh (Sejong University, Korea)
“Effect of pH on cell growth and recombinant antibody production in suspension culture of rCHO cells”
- P-20 Y.-G. Kim and G. M. Lee (KAIST, Korea)
“Bcl-xL overexpression does not enhance specific erythropoietin productivity of recombinant CHO cells grown at 33°C and 37°C”
- P-21 J. H. Seong, J. H. Park and D. J. Oh (Sejong University, Korea)
“Long-term perfusion culture of recombinant CHO cells producing recombinant erythropoietin in dual bioreactor system using a Centritech lab II centrifuge”
- P-22 Q. Y. Jiang, J. H. Park and D. J. Oh (Sejong University, Korea)
“Development of culture medium for mesenchymal stem cells from human umbilical cord blood”
- P-23 T. Jozaki, K. Aoki, H. Mizumoto and T. Kajiwara (Kyushu University, Japan)
“Continuous cell production from three dimensional hematopoietic microenvironment in polyurethane foam”
- P-24 Y. K. Han and G. M. Lee (KAIST, Korea)
“Effect of hyperosmolality and hypothermia on production of monomeric interferon- β in recombinant CHO cells”
- P-25 J. Y. Kim, Y.-G. Kim, J. Y. Baik, E. J. Joo, Y. H. Kim and G. M. Lee (KAIST, Korea)
“Proteomic approach for identifying cellular proteins interacted with erythropoietin in recombinant CHO cells”
- P-26 M. Hiroyama, K. Yoshida, F. Ozawa, M. Shimomura, Y. Miyagawa, N. Kiyokawa, A. Umezawa, A. Tanoue, T. Nakatsura and S. Tanaka (SCIVAX Corp., Japan)
“A new approach for drug discovery and differentiation study using cutting-edge 3D cell culture system”

- P-27 T. Sakai, T. Ogata, K. Kusumoto, E. Kanazawa, Y. Yoshikawa, N. Nakatani, A. Shirasu, S. Morishita and T. Emura (ASTECCo.,Ltd., Japan)
“A novel approach to protein production: automatic shaking culture device with gas permeable bags”
- P-28 R. Kato, H. Ito, K. Ino, M. Okochi and H. Honda (Nagoya University, Japan)
“Magnetic manipulation device (MMD) for the feasible optimization of cell processing”
- P-29 B. Monroe and D. Judd (Invitrogen Corporation, USA)
“Development of complementary basal media, feed supplements and feed strategies for fed-batch production”
- P-30 L. A. G. Ramalho, E. A. Elsayed, L. R. Castilho and R. A. Medronho (Federal University of Rio de Janeiro, Brazil)
“Effect of operating pressure and feed flow pulsation on cell separation efficiency of hydrocyclones”
- P-31 Y. Furutani, T. Tamura and M. Kodama (Vessel Inc., Japan)
“3 dimensional cell culture dish - VECELL of porous membrane for *in vivo*-like observation”
- P-32 N. Anuar, T. H. Siang, S. Rozaimah and S. Abdullah (Universiti Kebangsaan Malaysia, Malaysia)
“A preliminary cytotoxicity study of industrial effluent on mammalian cell culture”
- P-33 N. Anuar, N. T. Kofli and N. Ghazali (Universiti Kebangsaan Malaysia, Malaysia)
“Studies of multilayered culture of MBDK cells on scaffold”

Production of biologicals (P-34 – P-44)

- P-34 M. Zhang, A. A. Lawshe, K. Koskie, T. Johnson, M. V. Caple, J. S. Ross and M. Brand (SAFC Biosciences, Inc., USA)
“An efficient streamlined platform for cell culture media development and optimization in Chinese hamster ovary cells”
- P-35 A. M. Davis, G. A. Richardson, N. Lin, J. R. Cresswell, M. V. Caple, K. J. Kayser and M. Brand (SAFC Biosciences, Inc., USA)
“Cell Xpress™ cell line optimization service using laser-enabled analysis and processing (LEAP™) technology”
- P-36 S. N. Yoon, H. Kim, D. Lee, J. Park, K. Baek and J. Yoon (Kyung Hee University, Korea)
“High production of functional oligomeric mannose-binding lectin (MBL) in CHO cells”
- P-37 D. Ejima, R. Yumioka, H. Sato, H. Koyama and T. Arakawa (Ajinomoto Co., Inc., Japan)
“Antibody downstream processing using arginine and its derivative: high efficacy purification and virus inactivation”
- P-38 N. Hanada, T. Ishihara and T. Kadoya (Kyowa Hakko Kirin Co., Ltd., Japan)
“Development of next generation purification to address high titer cell culture for monoclonal antibodies -Challenging to 2-column purification process with high flow and high capacity for improving downstream economies and efficiencies-”
- P-39 T. Banzai, Y. Koyama and S. Sonezaki (TOTO Ltd., Japan)
“Characterization of the erythropoietin (EPO) protein production in the recombinant human

cultured cells, in which the exogenous EPO gene was introduced into hypoxanthine phosphoribosyl transferase (HPRT) gene locus”

- P-40 Y. Tsukamoto, S. Nakamura, A. Inoue, N. Nishio, Y. Inoue and H. Kawahara (Kyusyu Institute of Technology, Japan)
“Development of protein high expression system by using fructose metabolism”
- P-41 H.Y. Chung, K. I. Kim, H. H. Lee, Y. J. Seok, K. S. Ko, I. Hwang, Y. H. Joung, H. S. Kang, H. A. Kang, D. B. Oh and I. S. Chung (Kyung Hee University, Korea)
“Expression and characterization of recombinant colorectal cancer antigens in insect cells and plants”
- P-42 J. Hwang-Bo, K. H. Yoo, H.-S. Jeong, Y. J. Seok, J. M. Lee and I. S. Chung (Kyung Hee University, Korea)
“Attempt to characterize anti-angiogenic and anti-lymphangiogenic activities of recombinant canstatin from *Drosophila* S2 cells”
- P-43 R. Watanabe, Y. Kawabe, Y. Kameyama, Y. Takenouchi, A. Ito and M. Kamihira (Kyushu University, Japan)
“Enzymatic gene amplification system for animal cells using Cre recombinase”
- P-44 Y. Konno, Y. Kobayashi, K. Takahashi, E. Takahashi, S. Sakae, M. Wakitani, T. Suzawa, K. Yano, M. Koike, K. Wakamatsu and S. Hosoi (Kyowa Hakko Kirin Co., LTD., Japan)
“Controlling fucosylation levels of antibodies with osmolality during cell culture”

Functional cell lines (P-45)

- P-45 S. Jang, J. S. Park, J. Yoon and K. Baek (Kyung Hee University, Korea)
“Cell-based assay to screen antagonists against human dopamine D1 receptor using the established CHO cell lines”

Glycoengineering (P-46 – P-48)

- P-46 S.-M. Kim, J.-H. Park and D.-J. Oh (Sejong University, Korea)
“Differential glycosylation of recombinant antibodies produced from rCHO cells. I. Effect of cell growth and passage”
- P-47 S.-M. Kim, J.-H. Park and D.-J. Oh (Sejong University, Korea)
“Differential glycosylation of recombinant antibodies produced from rCHO cells. II. Effect of temperature and pH”
- P-48 J. Hwang-Bo, K. H. Yoo, J. M. Lee, J. M. Yang and I. S. Chung (Kyung Hee University, Korea)
“Expression of recombinant cyclooxygenase 1 in *Drosophila melanogaster* S2 cells transformed with human β 1,4-galactosyltransferase and Galbeta1,4-GlcNAc α 2,6-sialyltransferase”

Immunologicals, monoclonal antibodies, and vaccines (P-49 – P-57)

- P-49 D. Ha, E. Park, D.-S. Kim, G. Ahn and Y. Jee (Cheju National University, Korea)
“Protective effects on central nervous system by acidic polysaccharide of *Panax ginseng* in experimental autoimmune encephalomyelitis induced SJL/J mice”
- P-50 T. Yoshida, Y. Shigihara, M. Nakamura and M. Hattori (Tokyo University of Agriculture and Technology, Japan)

“Conjugate of β -lactoglobulin with carboxymethyl dextran increased the antigen-specific IgG1 production, while it decreased IgE production compared with native β -lactoglobulin”

- P-51 M. Maeda-Yamamoto, T. Miyase, Y. Okahata, K. Ema, H. Hirono, K. Azuma, M. Monobe and M. Kamei (National Institute of Vegetable and Tea Sciences, Japan)
“Generation of monoclonal antibody against *O*-methylated catechin”
- P-52 E. H. Byun, Y. Fujimura, K. Yamada and H. Tachibana (Kyushu University, Japan)
“Anti-inflammatory action of epigallocatechin-3-gallate at a physiological concentration through the 67-kDa laminin receptor in lipopolysaccharide-stimulated RAW264.7 cells”
- P-53 H. Shinmoto, Y. Matsuo, Y. Naganawa, S. Tomita and Y. Takano-Ishikawa (Tamagawa University, Japan)
“Epitope analysis of peanut allergen Ara h1 with human monoclonal IgM antibody 92-2”
- P-54 H. Kikuchi, R. Iwasaki, T. Mori, M. Kawakami, M. Ihara and H. Ueda (The University of Tokyo, Japan)
“Trans-splicing as a novel method to rapidly produce antibody fusion proteins”
- P-55 A. Ogawa, N. Takada and S. Terada (Suzuka National College of Technology, Japan)
“Enhancement of antibody productivity by using solution after antibody purification”
- P-56 K. Tomimatsu, S. Matsumoto, M. Yamashita, K. Teruya, Y. Katakura, S. Kabayama and S. Shirahata (Kyushu University, Japan)
“Production of human monoclonal antibodies against Fc ϵ RI α by a method combining in vitro immunization with phage display”
- P-57 J. M. Lee, H. H. Lee, J. Hwang-Bo, D. H. Shon, W. Y. Kim and I. S. Chung (Kyung Hee University, Korea)
“Expression and immunogenicity of recombinant VP1 of human hepatitis A virus”

Transplantation, artificial organs, and organ substitutes (P-58 – P-65)

- P-58 M. Takagi, T. Kitabayashi, S. Koizumi, H. Hirose, S. Kondo, K. Ueno, M. Fujiwara, H. Misawa, Y. Hosokawa, H. Masuhara and S. Wakitani (Hokkaido University, Japan)
“Noninvasive estimation of aggrecan gene expression level based on cell morphology analysis during differentiation from human mesenchymal stem cells to chondrocytes”
- P-59 M. Yamaguchi, H. Mitsuishi and S. Terada (University of Fukui, Japan)
“The effect of cell-cell interaction and ECM on insulin release from pancreatic islet cells”
- P-60 A. Ito, T. Kiyohara, Y. Kawabe, H. Ijima and M. Kamihira (Kyushu University, Japan)
“Enhancement of hepatocyte function through heterotypic cell-cell interactions using E-cadherin-expressing NIH3T3 cells”
- P-61 H. Jitsunobu, A. Ito, Y. Kawabe, H. Ijima and M. Kamihira (Kyushu University, Japan)
“Magnetic separation of cells using magnetite cationic liposomes”
- P-62 T. Takahashi, A. Ito, Y. Kameyama, Y. Kawabe and M. Kamihira (Kyushu University, Japan)
“Magnetic concentration and patterning of retroviral vector”
- P-63 H. Akiyama, A. Ito, Y. Kawabe and M. Kamihira (Kyushu University, Japan)
“Magnetic cell-patterning for tissue engineering”

- P-64 Y. Yamamoto, M. Kato, A. Ito, Y. Kawabe, K. Shimizu, E. Nagamori and M. Kamihira (Kyushu University, Japan)
“Magnetic force-based tissue engineering of skeletal muscle for bio-actuator”
- P-65 H. Fujita, K. Shimizu and E. Nagamori (Toyota Central R&D Labs., Inc., Japan)
“Fabrication of skeletal muscle tissue from C2C12 myoblast cell towards the use as bio-actuator”

Gene therapy (P-66 – P-69)

- P-66 Y. Kameyama, Y. Kawabe, A. Ito and M. Kamihira (Kyushu University, Japan)
“Retroviral vectors pseudotyped with chimeric vesicular stomatitis virus glycoprotein for antibody-dependent gene transduction”
- P-67 R. Kuwabara, T. Endoh, M. Sisido and T. Ohtsuki (Okayama University, Japan)
“Improvement of CPP-RBD for siRNA delivery”
- P-68 N. Morishita, K. Yamada, S. Kubo, A. Gotoh, T. Katsuda, H. Fukuda and H. Yamaji (Kobe University, Japan)
“Low multiplicity infection of 293 cells for adenovirus vector production”
- P-69 N. Morishita, S. Kubo, A. Gotoh, T. Katsuda, H. Fukuda and H. Yamaji (Kobe University, Japan)
“Production of adenovirus vector by 293 cells immobilized within porous biomass support particles”

Transgenic animals (P-70 – P-71)

- P-70 Y. Kawabe, K. Numata, M. Teramori, A. Ito and M. Kamihira (Kyushu University, Japan)
“Development of oviduct-specific gene expression system for transgenic avian bioreactor”
- P-71 Y. Hayashida, Y. Kawabe, K. Numata, A. Hishigae, A. Ito and M. Kamihira (Kyushu University, Japan)
“Production of therapeutic proteins composed of seven dominant human T cell epitopes derived from the Japanese cedar pollen allergens”

Safety and regulation (P-72)

- P-72 M. Okabe, K. Akiyama, S. Nishimoto, T. Sugahara and Y. Kakinuma (Ehime University, Japan)
“The differentiation of myoblast cells to myotube by paraquat”

Cell regulatory factors and signal transduction (P-73 – P-83)

- P-73 M. Udon, K. Mukae, T. Fujiki, Z. P. Bo, H. Fujii, S. Shirahata and Y. Katakura (Kyushu University, Japan)
“Expression analysis of senescence-associated genes: their possible involvement in the diabetes”
- P-74 Y. Miura, M. Miyake and K. Yagasaki (Tokyo University of Agriculture and Technology, Japan)
“Inhibition of mouse melanoma motility by exogenous ganglioside GM3 and its mode of action”
- P-75 T. Saheki, Y. Mukai, K. Saito, E. Tajima, K. Katakura, A. Nishina, M. Kishi, T. Izumi, T. Sugiyama and I. Kojima (Gunma University, Japan)
“Study of butyrate signal transduction pathways in rat hepatic stem-like cells”

- P-76 M. Kawahara, T. Inoue, X. Ren, T. Sogo, H. Yamada, M. Katoh, H. Ueda, M. Oshimura and T. Nagamune (The University of Tokyo, Japan)
“Growth control of mammalian cells via a human artificial chromosome harboring a chimeric receptor”
- P-77 S. Shim, M.-S. Kim, K.-C. Lee, I.-S. Kim, H.-S. Kang, N.-S. Kim and J. Kwon (Chonbuk National University, Korea)
“A cell culture system for mouse embryonic neuronal progenitor cells: expression of metabotropic glutamate receptor, mGluR2/3”
- P-78 Y. Fujimura, H. Higo, S. Yano, K. Yamada and H. Tachibana (Kyushu University, Japan)
“The impact of redox state on regulation of the high-affinity IgE receptor expression”
- P-79 S. Takeshita, K. Yanagihara, M. Sasaki, K. Tsujimoto, H. Yamada and S. Terada (University of Fukui, Japan)
“Anti-apoptotic effect of sericin”
- P-80 W. Liu, M. Kawahara, H. Ueda and T. Nagamune (The University of Tokyo, Japan)
“The characteristic of chimeric receptors based on erythropoietin receptor”
- P-81 K. Fukumoto, M. Tanaka, T. Yamashita and S. Terada (University of Fukui, Japan)
“Adaptation of hybridoma cells to serum-free media induces different IL-6 response”
- P-82 T. Yamaguchi, H. Kaneoka, K. Miyake and S. Iijima (Nagoya University, Japan)
“The role of polycomb genes for regulation of liver-specific gene expression”
- P-83 H. S. Byun, M. Won, K. A. Park, Y. -R. Kim, H. Lee, B. L. Choi, J. K. Lee, Y. Li, J. H. Seok, J. Park, J. H. Hong and G. M. Hur (Chungnam National University, Korea)
“Negative regulation of an RNA-binding protein PCBP-1 about NF-kappaB inhibitor, A20 in breast cancer cells”

Functional substances in food and natural sources (P-84 – P-105)

- P-84 J. H. Ha, M. C. Kwon, S. H. Oh, B. Hwang and H. Y. Lee (Kangwon National University, Korea)
“Enhancement of immune cell growth by encapsulation of aqueous extracts from *Centella asiatica* L. Urban”
- P-85 H. Tachibana, Y. Fujimura, Y. Hasegawa, S. Yano and K. Yamada (Kyushu University, Japan)
“The downregulation of mast cell activation through the suppression of the high-affinity IgE receptor expression by green tea catechin EGCG”
- P-86 S.-S. Choi, B.-Y. Cha, Y.-S. Lee, T. Yonezawa, T. Teruya, K. Nagai and J.-T. Woo (Chubu University, Japan)
“Magnolol promotes adipocyte differentiation through enhanced PPAR γ 2 and C/EBP α gene expression in 3T3-L1 cells.
- P-87 R. Mukai, Y. Shirai, N. Saito, K. Yoshida and H. Ashida (Kobe University, Japan)
“Subcellular localization of flavonol aglycones in hepatocytes visualized by confocal laser scanning fluorescent microscopy”
- P-88 Y.-S. Lee, B.-Y. Cha, S.-S. Choi, X. X. Wang, T. Yonezawa, T. Teruya, K. Nagai, J.-T. Woo (Chubu University, Japan)
“Effect of *Citrus depressa* Hayata extracts on obesity in high-fat-diet-induced obese mice”

- P-89 G. Ahn, E. Park, A.-D. Kim, Y.-J. Jeon and Y. Jee (Cheju National University, Korea)
“A classical NFκB pathway is required for enzymatic extract derived from *Ecklonia cava*-induced murine lymphocyte activation”
- P-90 K. Osada, Y. Li, T. Hamasaki, M. Abe, N. Nakamichi, K. Teruya, Y. Ishii, Y. Katakura and S. Shirahata (Kyushu University, Japan)
“Anti-diabetes effects of natural reduced water”
- P-91 M. Abe, S. Sato, K. Toh, T. Hamasaki, N. Nakamichi, K. Teruya, Y. Katakura, S. Morisawa and S. Shirahata (Kyushu University, Japan)
“Suppressive effect of electrolyzed reduced water on lipid peroxidation and lipid absorption”
- P-92 K. Haramaki, T. Hamasaki, M. Abe, K. Teruya, Y. Katakura, S. Morisawa and S. Shirahata (Kyushu University, Japan)
“Suppressive effects of hydrogen and atomic hydrogen on type 2 diabetes”
- P-93 K. Nakanishi, T. Hamasaki, T. Nakamura, M. Abe, K. Teruya, Y. Katakura, S. Morisawa and S. Shirahata (Kyushu University, Japan)
“Growth suppression of HL60 and L6 cells by atomic hydrogen”
- P-94 N. T. Dang, M. Yamaguchi, T. Yoshida, K. Yoshida and H. Ashida (Kobe University, Japan)
“Insulin-mimetic activity of inositol derivatives depends on phosphorylation of PKCζ/λ in L6 myotubes”
- P-95 A. Shimada and Y. Fuke (Tokyo Metropolitan University, Japan)
“6-(methylsulfinyl)hexyl isothiocyanate derived from wasabi (*Wasabia japonica* Matsum) inhibits histone deacetylase activity in B16BL6 melanoma”
- P-96 Y. Takano-Ishikawa, M. Goto, K. Yamaki, K. Ramalakshmi and H. Shinmoto (National Agriculture and Food Research Organization, Japan)
“Evaluation of anti-allergic effect of herbs and Indian spices”
- P-97 M. Monobe, K. Ema, K. Azuma, M. Maeda-Yamamoto (National Institute of Vegetable and Tea Science, Japan)
“Enhancement of phagocytic activity by a crude polysaccharide from tea (*Camellia sinensis*) extract”
- P-98 E. Park, G. Ahn, N. H. Lee, Y. -J. Jeon and Y. Jee (Cheju National University, Korea)
“Dieckol protects immune and hematopoietic cells against ionizing radiation in mice”
- P-99 M. Nagaoka, Y. Miura and K. Yagasaki (Tokyo University of Agriculture and Technology, Japan)
“Anti-diabetic functions of genistein, daidzein and equol *in vitro* and *in vivo*”
- P-100 K. Hata, K. Ogihara, S. Takahashi, T. Tsuka, S. Minami and Y. Okamoto (Akita Prefectural Agricultural, Forestry, and Fisheries Research Center, Japan)
“Effects of lupeol on melanoma *in vitro* and *in vivo*”
- P-101 S. Tominaga, T. Sugahara, S. Nishimoto, M. Yamawaki, Y. Nakashima, T. Kishida, K. Akiyama, M. Maruyama and S. Yamauchi (Ehime University, Japan)
“The effect of secoisolariciresinol on 3T3-L1 adipocytes and the relationship between molecular structure and the activity”

- P-102 K. Mitsuda, A. Inoue, N. Nishino, Y. Inoue and H. Kawahara (Kyushu Institute of Technology, Japan)
“Detection of anti-allergic effects in strawberry extracts”
- P-103 T. Ishikawa, T. Hyakutake, Y. Gondou, M. Sakai, R. Kinoshita, J. Tottori, H. Kunitake and K. Kusumoto (Fukuoka Industrial Technology Center, Japan)
“Anti-melanogenic activity of yacon leaves in mouse melanoma cells”
- P-104 A. Enomoto, M. A. B. Jamal, H. Mitsui, H. Kimoto-Nira, C. Suzuki and K. Mizumachi (Gunma University, Japan)
“Cytokine responses of splenocytes of female and male non-obese diabetic mice induced by lactic acid bacteria”
- P-105 S. Park, I. Hwang, E. Park and Y. Jee (Cheju National University, Korea)
“CD4+CD25+ regulatory T cells contribute to the therapeutic effects of Ginsan in experimental autoimmune encephalomyelitis in C57BL/6 mice”

Animal cells for in vitro assay (P-106 – P-111)

- P-106 N. Eto, K. Nagahama, S. Miyamoto, O. Yamaguchi, S. Miyauchi, T. Iwata, A. Uchida and K. Yamamori (University of Miyazaki, Japan)
”Development of a high-throughput evaluation system for antiviral activities by using bioinformatics”
- P-107 S. Kasai, H. Shiku, T. Matsue and Y. Niizeki (Tohoku Institute of Technology, Japan)
“Real-time monitoring of respiratory burst during differentiation of human monocytic cell lines (THP-1)”
- P-108 H. Jeon, J. S. Eun, J. H. Yang, J. P. Lim, T. Y. Shin and C. H. Oh (Woosuk University, Korea)
“Antioxidant and anti-inflammatory activities of *Vitex rotundifolia*”
- P-109 S. Nishimoto, K. Kanda, M. Okabe, K. Akiyama, Y. Kakinuma and T. Sugahara (Ehime University, Japan)
“Immunological effects of pesticides on splenic lymphocytes in mice”
- P-110 Y. Sakai and K. Nakazawa (The University of Kitakyushu, Japan)
“Co-cultured hepatocyte spheroid chip using microfabrication technique”
- P-111 Y. Shinmura, A. Higuchi, Y. Sakai and K. Nakazawa (The University of Kitakyushu, Japan)
“Micropatterned hepatocyte culture using microstencil technique”

Other topics concerning animal cell technology (P-112 – P-126)

- P-112 K. Kusumoto (Fukuoka Industrial Technology Center, Japan)
“Structural features of totally designed lipidic materials for small interfering RNA delivery system”
- P-113 K. Kusumoto, T. Nagata and I. Hamachi (Fukuoka Industrial Technology Center, Japan)
“Thin-film assembly of totally designed lipidic materials as gene carrier in mouse embryonic neural stem cells”
- P-114 K. Kusumoto, T. Nagata, E. Kanazawa, T. Sakai, Y. Yoshikawa, T. Ogata, N. Nakatani, T. Ishikawa, S. Koga, A. Shirasu, S. Morishita, T. Emura and I. Hamachi (Fukuoka Industrial

- Technology Center, Japan)
 “Transfection system using a cocktail of totally designed lipidic materials in Chinese hamster ovary cells”
- P-115 J. Motoyama, T. Hakata, R. Kato, N. Yamashita, T. Morino, T. Kobayashi and H. Honda (Nagoya University, Japan)
 “Size dependent heat generation of magnetite nanoparticles under AC magnetic field for cancer therapy”
- P-116 D. Miura, Y. Fujimura, H. Tachibana and H. Wariishi (Kyushu University, Japan)
 “Functional evaluation of anticancer drugs in human leukemia cells based on metabolic profiling technique”
- P-117 K. Kuroda, Y. Maseki, R. Nishida, T. Yoneya and M. Tsukahara (Kyowa Hakko Kirin Co., Ltd., Japan)
 “A cDNA microarray for Chinese hamster ovary cell”
- P-118 J. H. Lee, K. Yamada and H. Tachibana (Kyushu University, Japan)
 “Extracts from the root of *Platycodon grandiflorum* modulate induction of inflammatory changes by coculture of adipocytes and macrophages”
- P-119 S. Yamashita, Y. Ushijima, Y. Okuma, S. Kawasaki, K. Yamada and H. Tachibana (Kyushu University, Japan)
 “Physiological activity of white sweet potato Simon (*Ipomea batatas sp*) in Kumamoto”
- P-120 S. Neki, T. Ohtsuki and M. Sisido (Okayama University)
 “Position specific incorporation of nonnatural amino acids into proteins *in vivo*”
- P-121 Y. Watai, T. Karasawa, I. Clark and G. Bright (Summit Pharmaceuticals International Corp., Japan)
 “High throughput IgG producing cell cloning by LEAPTM technology”
- P-122 W. S. Yoon, E. S. Lee, S. S. Lee and Y. Park (Korea University, Korea)
 “Activated CD8 T cells inhibits the development of atopic dermatitis-like skin lesions in NC/Nga mice”
- P-123 H. S. Jeong, J. Han, J. Ling, M. C. Kwon, S. G. You and H. Y. Lee (Kangwon National University, Korea)
 “Effects of small size fucoidan peptides on inhibition of human cancer cells”
- P-124 K. Nishiyama, K. Sugawara, K. Soejima, S. Abe and H. Mizokami (The Chemo-Sero-Therapeutic Research Institute, Japan)
 “Novel protease inhibitor inhibiting proliferation of influenza virus”
- P-125 A. Srivastava and A. Kumar (Indian Institute of Technology Kanpur, India)
 “Supermacroporous cryogel device for isolation of specific cell types”
- P-126 K. H. Yoo, J. Hwang-Bo, Y. J. Seok, E. J. Cui, D. Y. Lee, J. M. Lee, N. I. Baek and I. S. Chung (Kyung Hee University, Korea)
 “Pentacyclic triterpenoid compound induces apoptosis of human colon carcinoma HCT-116 cells”