

THE 16th ANNUAL MEETING

JSGT2010

JAPAN SOCIETY OF GENE THERAPY

Program & Abstracts

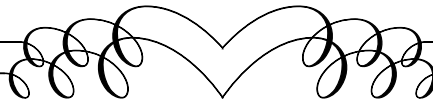
Date

July 1-3, 2010

Venue

**Tochigi-ken General Culture Center
1-8 Honcho, Utsunomiya city, 320-8530
Tochigi**

JSGT Home-page URL: <http://jsgt.jp>



**16th Annual Meeting 2010 Japan Society of Gene Therapy
Scientific Program Committee**

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Keiya Ozawa**

Chairman of the Board of Director

Yasufumi Kaneda

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Toshiyoshi Fujiwara & Hirofumi Hamada

Public Relations & International Exchanges

Toya Ohashi

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Cancer

Yuji Heike, Kazunori Kato, Yasutomo Nasu, Masatoshi Tagawa, Tomoki Todo

Cardiovascular Diseases

Uichi Ikeda, Takayuki Morisaki, Ryuichi Morishita, Hiromi Rakugi, Yoshikazu Yonemitsu

Genetic & Other Diseases

Koichi Miyake, Shin-ichi Muramatsu, Toya Ohashi, Takashi Okada, Makoto Otsu

International Organizing Committee

Noriyuki Kasahara, Hiroyuki Nakai, Samuel Wadsworth, Chae-Ok Yun

Local Organizing Committee (Jichi Medical University)

Akihiro Kume (Division of Genetic Therapeutics, Center for Molecular Medicine)
Hiroaki Mizukami (Division of Genetic Therapeutics, Center for Molecular Medicine)
Masashi Urabe (Division of Genetic Therapeutics, Center for Molecular Medicine)
Tomonori Tsukahara (Division of Genetic Therapeutics, Center for Molecular Medicine)
Yoichi Sakata (Division of Cell and Molecular Medicine, Center for Molecular Medicine)
Jun Mimuro (Division of Cell and Molecular Medicine, Center for Molecular Medicine)
Seiji Madoiwa (Division of Cell and Molecular Medicine, Center for Molecular Medicine)
Tsukasa Ohmori (Division of Cell and Molecular Medicine, Center for Molecular Medicine)
Yutaka Hanazono (Division of Regenerative Medicine, Center for Molecular Medicine)
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Tadashi Nagai (Division of Hematology, Department of Medicine)
Masaki Mori (Division of Hematology, Department of Medicine)
Katsutoshi Ozaki (Division of Hematology, Department of Medicine)
Takahiro Suzuki (Division of Hematology, Department of Medicine)
Ken Ohmine (Division of Hematology, Department of Medicine)
Kazuo Muroi (Division of Cell Transplantation and Transfusion)
Imaharu Nakano (Division of Neurology, Department of Medicine)
Shin-ichi Muramatsu (Division of Neurology, Department of Medicine)
Yasushi Saga (Department of Obstetrics and Gynecology)
Toshihiko Yada (Division of Integrative Physiology, Department of Physiology)
Kuniko Shimazaki (Division of Brain and Neurophysiology, Department of Physiology)



Welcome to Utsunomiya

Message from the President

Dear Colleagues,

I would like to express my sincere gratitude for giving me this opportunity to be able to announce the 16th JSGT Annual Meeting, which will be held on July 1-3, 2010, at the Tochigi-ken General Culture Center. The theme of the 16th JSGT Annual Meeting is “Perseverance and Innovation for Gene Therapy Breakthroughs”.

As we are all aware, basic research and clinical applications of gene therapy have been under a cloud and facing difficulties in finding a way to break through this situation. Even the United States of America that's been leading the research ever since is facing a rough time, especially venture companies in developing gene therapy technologies. When I looked from the past to present, I came to think that the major reason for not gaining enough success clinically is that the basic technologies are still insufficient. Nevertheless, I still think there is a promising future in gene therapy or should I say, in new medical technology involving gene transfer technologies, if we hold on and don't lose hope in pursuing the goals that each of us have set and by doing so, it will eventually lead us to more innovative technologies or ideas which I believe it would become a breakthrough to overcome the adversities.

On the other hand, to activate our country's research in gene therapy, there is a need for more vivid involvement of young investigators to the society. With this in mind, I promise you the program of the 16th Annual Meeting to be fully interesting and attractive enough so that many of these young scientists would want to participate.

I will organize this meeting not only as a place to report on the proceedings of existing researches but also a place where researchers from relating fields like “Cell Therapy” and “Regenerative Medicine” can participate, present their latest studies and exchange lively discussions from various angles, on the development of advanced medicine with the applications of gene transfer technologies. Additionally, there will be Special Lectures by Prof. Barrie Carter who is President of ASGCT, lecturing on the clinical usability of AAV vectors, and Prof. Richard Morgan of NCI who will be lecturing on the “Engineered T cell therapy” which is recently gathering attention. To appeal the importance of international cooperation and international exchanges is essential for further developments and I sincerely hope that this program would gather many young investigators and scientists from overseas, especially from Asia.

Finally, in Tochigi, there is the world heritage of “Shrines and Temples of Nikko Toshogu” where the mausoleum of Shogun Tokugawa Ieyasu lies, and there is a famous word by him carved in a monument, “Life is like a long journey with a heavy load. Let your step be slow and steady ---”. If I compared “life” to “gene therapy”, then his words would become a guiding precept for us to follow.

I look forward to welcoming you in Utsunomiya and I assure you an outstanding experience of scientific discussions and enjoyment. See you in Utsunomiya, July 2010!

Sincerely yours,

Keiya OZAWA, M.D., Ph.D.
President of the 16th JSGT, 2010

General Information

Meeting Location

All JSGT sessions and exhibitions will be held inside the Tochigi-ken General Culture Center at 1-8 Honcho, Utsunomiya, Tochigi 320-8530, Japan. Ancillary meetings and small committee meetings will be held at surrounding hotels.

On-Site Registration

Nametags will be distributed at the registration desk located on the 1st floor lobby of the Sub-Hall at the venue. Registration Fee: JPY 10,000 , Student (include graduate student): Free! (with verification card) Program & Abstract Book Fee: JPY 3,000 (Free for those who have paid their 2009-Annual Membership fees)

Method of Payment:

- ▶Payment will only be acceptable at the Registration Desk during the Meeting.
- ▶All payments must be made in Japanese Yen (JPY), Cash Only! No other currencies are acceptable.
- ▶Registration fee entitles the participants to all Scientific Sessions, Exhibitions, and Get-together.

Registration Hours

- ▶July 1 Thursday 10: 00 am - 17: 00 pm
- ▶July 2 Friday 8: 30 am - 17: 00 pm
- ▶July 3 Saturday 8: 30 am - 14: 00 pm

General Assembly

General assembly will be held from 12:55 to 13:35 on July 1 at the Sub-Hall. All members will be requested to take part in this assembly.

Get-together

There will be a Get-together, on Thursday July 1, from 18:45 pm to 20:00 pm at a restaurant “Auberge des Marronnier” on the 2nd floor of the venue. All participants are welcome to come, so please enjoy your opportunity to link with your colleagues.

Welcome Reception

On Friday evening, July 2, you are invited to attend a Welcome Reception (buffet style dinner) at the restaurant “Shouhaku” on the 4th floor of Utsunomiya Tobu Hotel Grande. The reception will begin at 18:45 pm and will end at 20:30 pm. The fee will be JPY 3,000. If you wish to join, please purchase tickets at the registration desk during open hours. For more information, please contact our staffs at the registration desk. All participants are welcome, so please come and join us and share a wonderful time together.

Exhibition

The Exhibitions will be open on Thursday, July 1 through Saturday, July 3. Please visit the 4th Gallery and see the exciting exhibitions.

Social Program “OYA STONE MUSEUM” & “JAZZ NIGHT”

An attractive social program for participants and accompanying persons on Friday, July 2 will be organized. We will offer an excursion to the “OYA STONE MUSEUM” and there, we will host a private jazz concert performed by “Route Four”. A Coaching Bus will leave the venue at 17:10 pm. After you have enjoyed the Museum and a 15 minute Jazz Concert from 17:35~18.10 pm, the Bus will take you to the Welcome Reception at Utsunomiya Tobu Hotel Grande around 18:35 pm. Early reservation for tickets should be done by e-mail (jsgt2010@jichi.ac.jp) by June 25, 2010 and they can be purchased from July 1 to 13:00 pm July 2. Ticket sold on the day will be JPY 1,000 (includes transportation) at the registration desk. Tickets are not refundable.

- ▶Tickets are limited and available on a first come, first served basis! (Up to 100 capacity!)

Instructions for Speakers in Oral Presentation Sessions

1. The language for oral presentation is either Japanese or English. All slides should be prepared in English. No simultaneous interpretation will be provided.
2. All speakers are requested to bring their presentation data in a CD-R or USB Flash Memory drive which should be formatted to run on Windows-based PC. OS and application software for presentation data are Windows XP and PowerPoint 2003 and 2007.
3. Please note that the font should be basic (Arial, Times New Roman, etc.) to avoid display problems.
4. For Windows Vista and Macintosh users, please bring your laptop computer at your own risk since it will not be supported by the computers at the venue.
5. Macintosh users are required to bring an AC adapter and a VGA adapter (D-Sub15).

Preview Section (PC station)

1. All speakers are requested to bring their presentation data in a CD-R or USB Flash Memory to the PC Preview Section on the 2nd floor of the Main Building (Sub-Hall) and complete review of presentation data at least 30 minutes to 1 hour before your presentation is scheduled.
2. For Macintosh users, please ask for further instructions from the AV technicians at the PC Station.
3. Please place all video clips linked with the PowerPoint presentation into a single folder.
Video file should be WMV or MPEG1, not MPEG2.
4. Presentation data loaded on the computer will be completely deleted after your presentation by our staffs.

The time allocations for oral presentations

The speakers of Plenary Session I & II will be given 15 minutes in total.

(12 minutes talk followed by 3 minutes discussion.)

The speakers of Oral Sessions will be given 10 minutes in total.

(7 minutes talk followed by 3 minutes discussion.)

The time allocations for other Sessions

Session Title (Total time)	Talk	Discussion
Special Lecture I & II (50 min each)	45 min	5 min
Educational Lecture I-IV (30 min each)	25 min	5 min
Main Symposium (120 min)	19 min	5 min
International Symposium (120 min)	19 min	5 min
Asian Session (60 min)	16 min	4 min
Joint Symposium I: Day 2 (110 min)	Chairperson: 10 min Speakers: 20 min	— 5 min
Joint Symposium II: Day 3 (90 min)	Chairperson: 10 min Speakers: 16 min	— 4 min
Workshop (90 min)	25 min	5 min
Panel Discussion (90 min)	(1) 20 min	5 min
	(2) 15 min each	5 min (combined)
	(3) 20 min	5 min
5 minutes of total discussion at the end of session		
Clinical Trial Seminar (30 min)	25 min	5 min
Technical Seminar I-IV (30 min each)	25 min	5 min

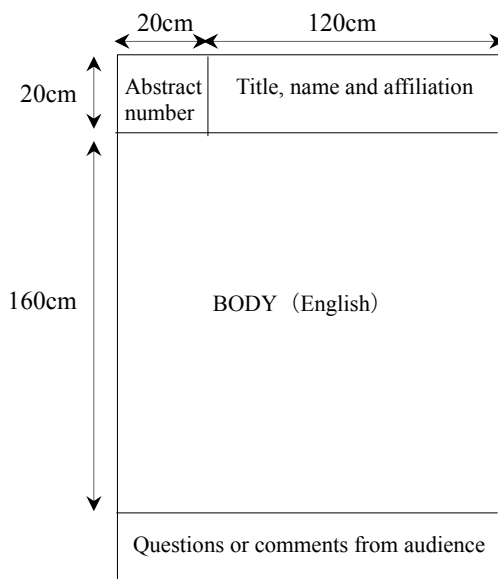
- Minor alterations may be informed by the Session's Chairs.

Instructions for presentation in Poster Sessions

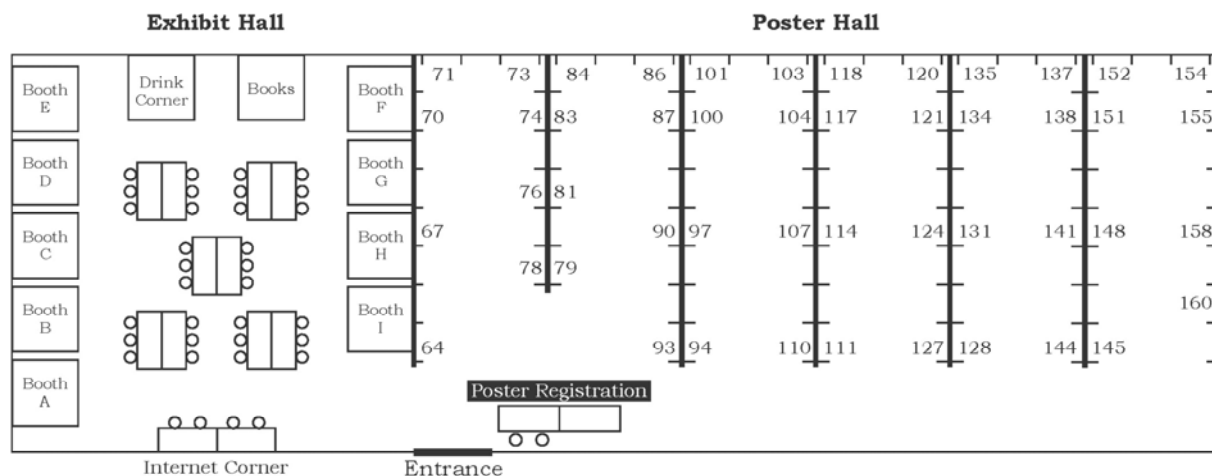
1. The poster board assigned to each presenter has a usable area of 140 cm in width and 160 cm in height.
2. Save the top left section of 20 cm square for an abstract number plate.
 Authors must receive their number plates at the registration desk at the entrance of the 4th Gallery.
3. Authors must prepare the title, name, affiliation.
4. Please be present at your poster during discussion time. Discussion may be either in Japanese or English.
5. Space will be provided at the bottom of each poster board, for audience to pin up questions or comments to authors. (Pins will be provided by JSGT-2010.)
6. Authors are requested to mount and remove posters at designated place and times.
 - ▶Place: 4th Gallery
 - ▶Schedule for Poster Presentation

Poster mounting	11:00~11:50, July 1, 2010
Discussion	18:20~19:30, July 1, 2010
Poster viewing	12:00, July 1 to 16:00, July 2, 2010
Removal	16:00~17:00, July 2, 2010

▶Poster layout (Sample)



▶4th Gallery Layout

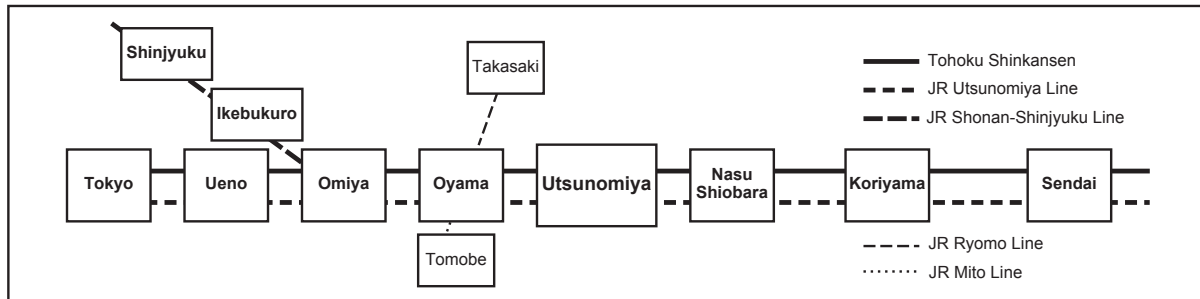
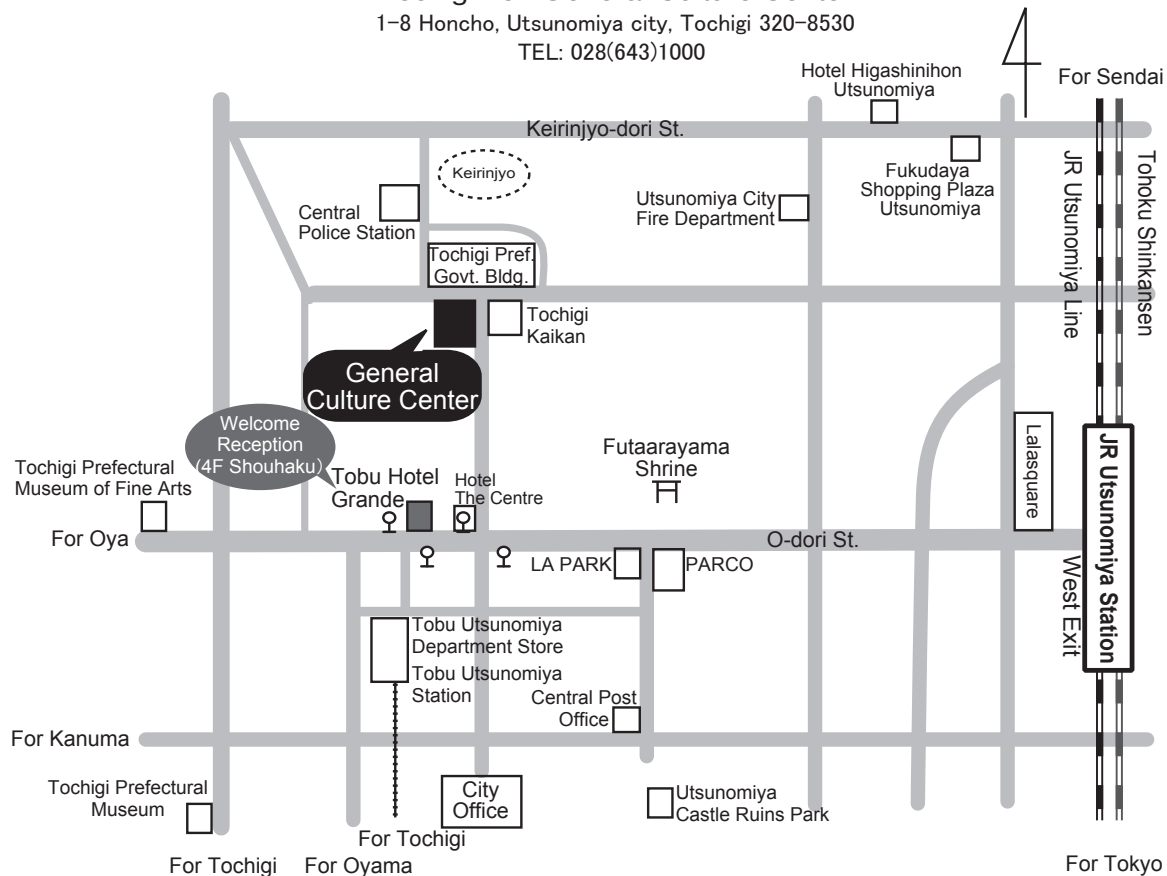


For the latest information about the meeting, please visit the website at <http://jsgt.jp>

NO SMOKING inside the building.

Access Information

Tochigi-ken General Culture Center
 1-8 Honcho, Utsunomiya city, Tochigi 320-8530
 TEL: 028(643)1000



◆ TRAIN ◆

JR Tohoku Shinkansen (Bullet train) / JR Utsunomiya Line / JR Shonan-Shinjuku Line

Tohoku Shinkansen operates every 15~30 minutes from both Tokyo/ Ueno. 'Yamabiko', 'Nasuno' and most 'Tsubasa' trains stop at Utsunomiya station.

Tobu Utsunomiya Line

Tobu Utsunomiya station is in downtown Utsunomiya. You can get on the rapid trains of Tobu Nikko Line, and change to Tobu Utsunomiya Line at Shin-tochigi station.

◆ BUS ◆

Taking Kanto Bus from JR Utsunomiya station Western exit, getting off at Kencho Mae or Tobu Eki Mae and 3minutes walk.

Ticket gates of JR Utsunomiya station will naturally lead getting-off passengers to the West exit.

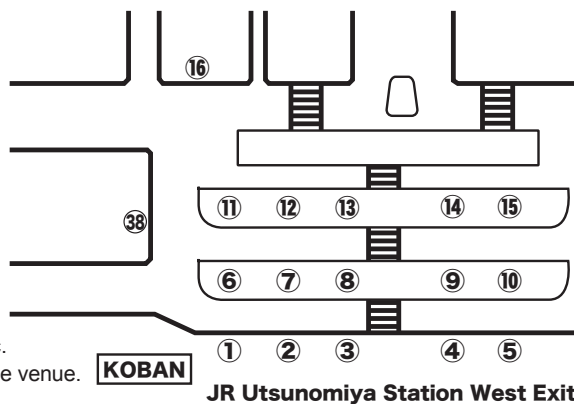
And you will see the bus terminal just in front of you.

Please get on the buses at stops posted Number 1, 2, 6, 7 etc.

Utsunomiya town circulation bus "Kibuna" will take you closest to the venue. getting off at ken-sogobunkasennta-mae.

Kibuna Line bus ticket is a flat fare of 150JPY for adults.

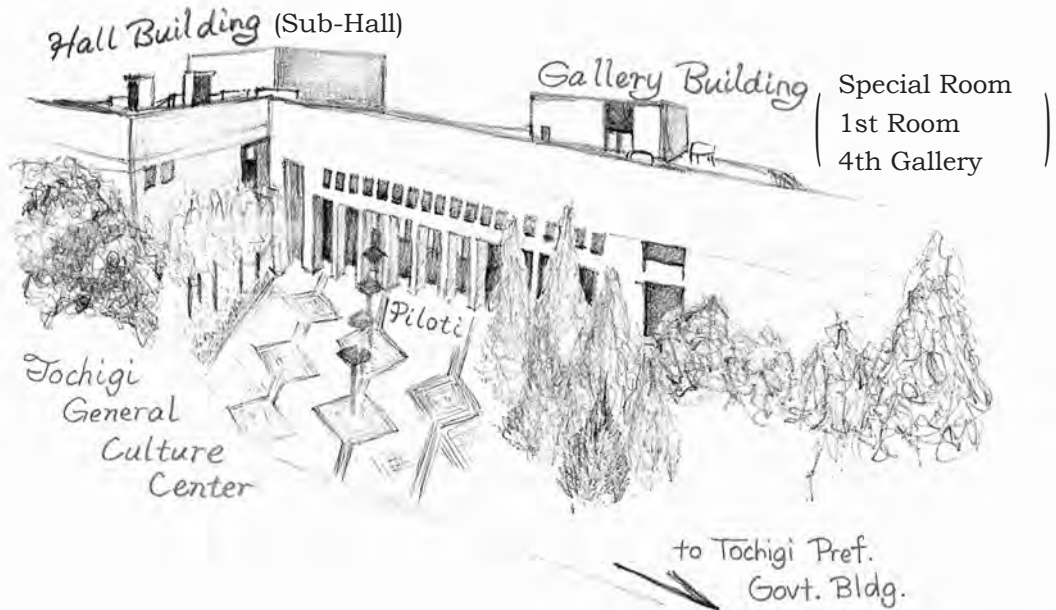
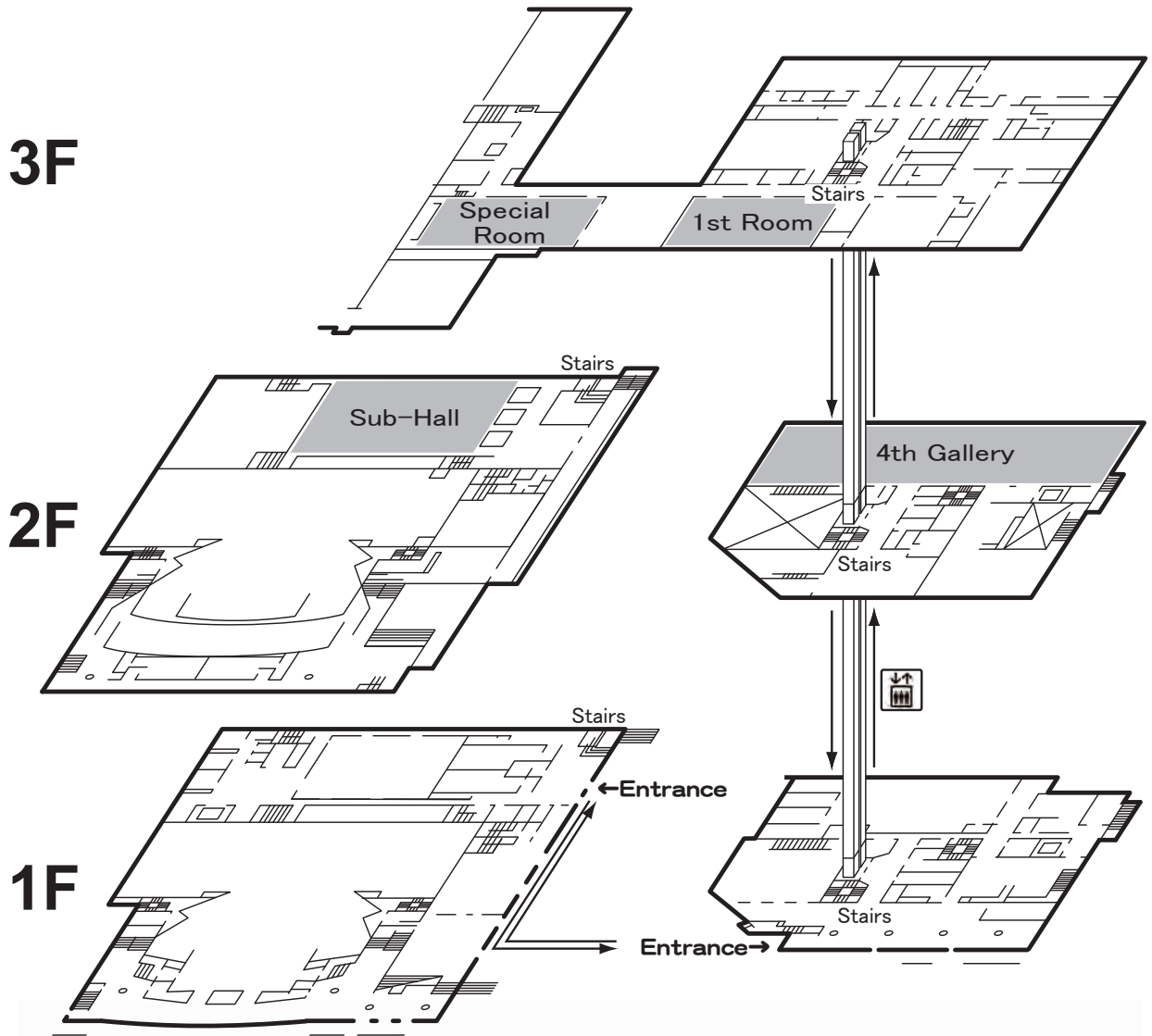
Please get on the buses at stop posted Number 38.



◆ TAXI ◆

It takes 5 minutes by taxi (approx. 1,600m) from Utsunomiya station.

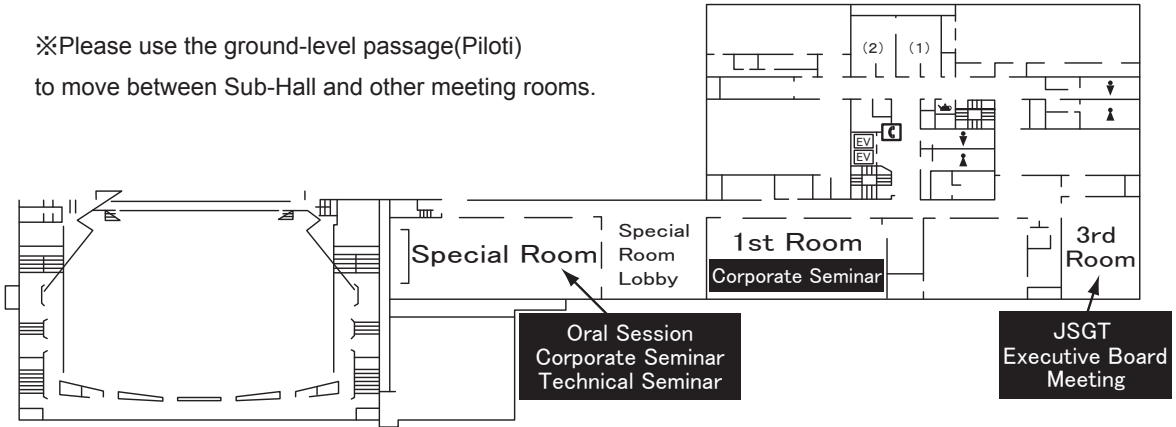
Venue: Tochigi-ken General Culture Center



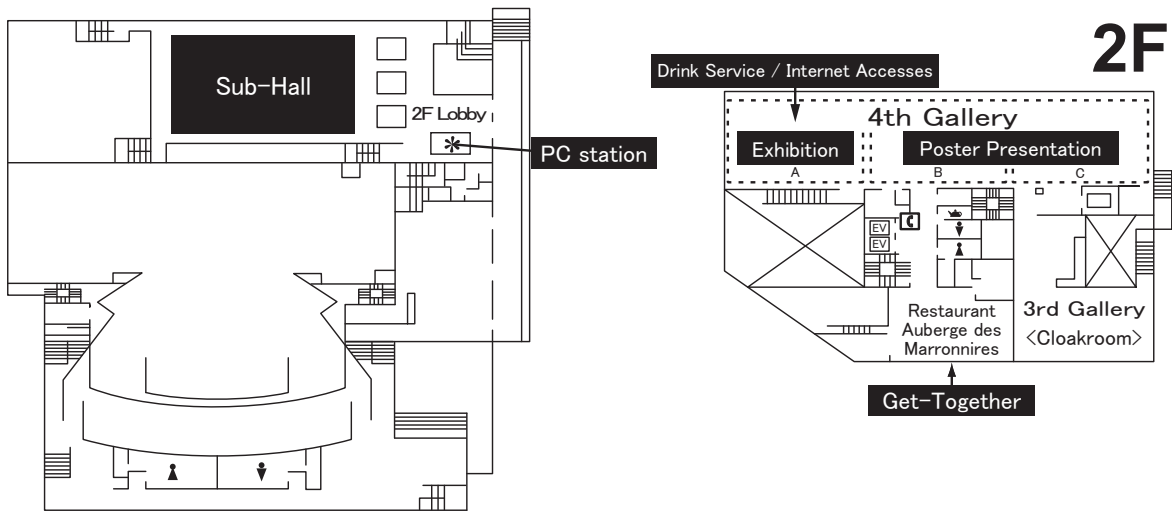
Sketch by K. Aoki

3F

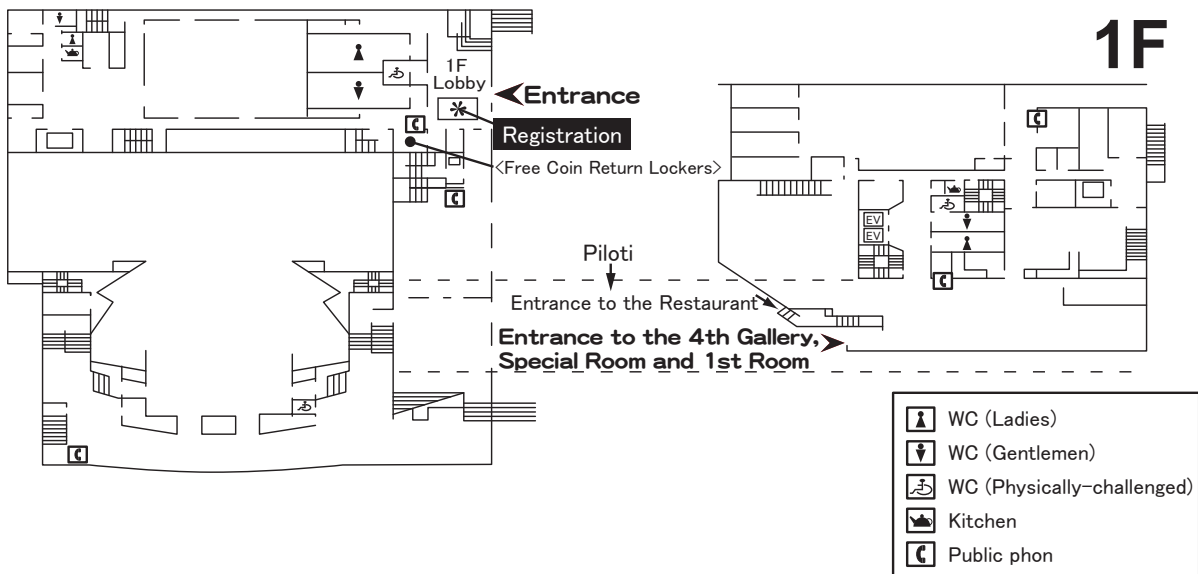
※Please use the ground-level passage(Piloti)
to move between Sub-Hall and other meeting rooms.



2F



1F



Schedule-at-a-Glance

The 16th Annual Meeting of Japan Society of Gene Therapy (JSGT2010 in Utsunomiya) --- Schedule-at-a-Glance

Date: July 1 ~ 3, 2010 Venue: Tochigi-ken General Culture Center

Shaded: English presentation

	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	
Day 1 (Thursday, July 1)	AM										
Sub-Hall	Opening	Plenary Session I	Takara Bio Award Lecture	Councilors Meeting	General Assembly	Presidential Lecture	Special Lecture I by Dr. B. Carter	Educational Lecture I	Educational Lecture II	Coffee Break	Main Symposium: Recent Progress in Gene Therapy
Special Room				Corporate Seminar I			Oral Session	Oral Session			Oral Session
1 st Room				Corporate Seminar II							18:45~20:00 Get-Together
4 th Gallery				Poster							18:20~19:30 Discussion & Beer
	PM										
Day 2 (Friday, July 2)	AM										
Sub-Hall	Asian Session	International Symposium					Joint Symposium I: Cell Therapy & Gene Therapy	Plenary Session I			
Special Room	Technical Seminar I	Technical Seminar II	Oral Session	Corporate Seminar III			Clinical Trial Seminar	Oral Session (in English)			17:10~18:35 Oya Stone Museum "Jazz Night" by Route Four
1 st Room			Oral Session	Corporate Seminar IV							18:45~20:30 Welcome Reception (Buffet Dinner at Tobu Hotel Grande)
4 th Gallery			Poster (continue from day 1; display alone)								(clear up)
	PM										
Day 3 (Saturday, July 3)	AM										
Sub-Hall	Joint Symposium II: Cancer Immunotherapy & Gene Therapy	Workshop: Applications of Gene Transfer Technologies					Panel Discussion: Future Prospects of Gene Therapy	Closing			
Special Room	Technical Seminar III	Technical Seminar IV	Oral Session (in English)	Corporate Seminar V	Educational Lecture III	Educational Lecture IV	Oral Session				Wednesday, June 30 19:30~ Welcome Dinner for invited guests (Utsunomiya Tobu Hotel Grande)
1 st Room			Oral Session (in English)	Corporate Seminar VI							Thursday, July 1 8:30~9:45 JSGT Executive Board Meeting (3 rd Room)

The 16th Annual Meeting of JSGT 2010
Venue: Tochigi-ken General Culture Center, Utsunomiya, Tochigi

Time Table

(E: English presentation)

Day I Thursday, July 1

- 10:50~11:00 **Opening Remarks: President Keiya Ozawa**
- 11:00~11:45 **Plenary Session I (PL1~PL3) (E)** *Chairperson: Kenzaburo Tani*
- 11:45~12:00 **1st Takara Bio Award Lecture** *Chairperson: Yasufumi Kaneda*
Takashi Okada (National Center of Neurology and Psychiatry)
 “Scalable purification of adeno-associated virus serotype 1 (AAV1) and AAV8 vectors, using dual ion-exchange adsorptive membranes”
- 12:00~19:30 Poster Viewing (PO64~PO160)
- 12:05~12:50 Councilor’s Meeting
- 12:05~12:50 Corporate Seminar I *Chairperson: Kazuto Takesako*
Junichi Mineno (Center for Cell and Gene Therapy, Takara Bio Inc.)
 “Introduction of tools, technologies and applications for acceleration of your research and development of gene therapy”
- Corporate Seminar II *Chairperson: Yutaka Hanazono*
Noemi Fusaki (PRESTO Research Leader, Unit of Cell Therapy & Regenerative Medicine, DनावेC Corporation)
 “Efficient generation of iPS cells free from chromosomal damages and transgenes using an RNA replicon system, Sendai virus vector”
- Yoshikazu Yonemitsu** (R&D Laboratory for Innovative Biotherapeutics, Graduate School of Pharmaceutical Sciences, Kyushu University)
 “Development of DVC1-0101, a recombinant Sendai virus expressing human FGF-2, as a RNA drug to treat peripheral arterial disease”
- 12:55~13:35 General Assembly
- 13:40~14:05 **Presidential Lecture** *Chairperson: Shigetaka Asano*
Keiya Ozawa (Jichi Medical University)
 “Development of gene therapy: Current status and new directions”
- 14:05~14:55 **Special Lecture I (E)** *Chairperson: Keiya Ozawa*
Barrie J. Carter (ASGCT President)
 “Clinical development of AAV vectors: Success in sight”
- 15:00~15:30 **Educational Lecture I** *Chairperson: Yasufumi Kaneda*
Hiroyuki Sasaki (Medical Institute of Bioregulation, Kyushu University)
 “Epigenetics in human disorder”
- 15:30~16:00 **Educational Lecture II** *Chairperson: Yoshiro Niitsu*
Hideyuki Okano (Keio University School of Medicine)
 “Strategies toward CNS-regeneration using iPS cell technology”
- 15:00~16:00 Oral Session 1-Basic Science (OR8~OR13) *Chairpersons: Kazunori Kato & Takanori Yokota*
- 16:00~16:15 Coffee Break
- 16:15~18:15 **Main Symposium: “Recent Progress in Gene Therapy” (E)**
Chairpersons: Takashi Shimada & Samuel Wadsworth
Hiroyuki Nakai (University of Pittsburgh School of Medicine, USA)
 “Rapidly evolving adeno-associated viral vectors for gene therapy”
Shin-ichi Muramatsu (Jichi Medical University)
 “AADC gene therapy for Parkinson's disease: A phase I study”
Shin'ichi Takeda (National Center of Neurology and Psychiatry)
 “Advances of molecular therapy research on dystrophin-deficient muscular dystrophy”
Tomoki Todo (The University of Tokyo Hospital)
 “A clinical study of a third-generation oncolytic HSV-1 (G47Δ) in patients with recurrent glioblastoma”
Toshiyoshi Fujiwara (Okayama University Graduate School)
 “Phase I clinical trial of telomerase-specific oncolytic adenovirus for human solid tumors”
- 16:15~17:15 Oral Session 2-Cancer I: Oncolytic Virotherapy (OR14~OR19) *Chairpersons: Akinobu Gotoh & Hideaki Shimada*
- 17:15~18:15 Oral Session 3-Cancer II: Immunotherapy (OR20~OR25) *Chairpersons: Hiromi Kumon & Masato Abei*
- 18:20~19:30 Poster Discussion (PO64~PO160)
- 18:45~20:00 **Get-Together**

Day II Friday, July 2

- 09:00~10:00 **Asian Session (E)** *Chairpersons: Chae-Ok Yun & Masatoshi Tagawa*
Sunyoung Kim (Seoul National University, Korea)
“Enhanced angiogenesis by coexpression of two isoforms of hepatocyte growth factor from naked plasmid DNA: Results from clinical trials for coronary and peripheral artery diseases”
Yajun Guo (Second Military Medical University, China)
“Novel monoclonal antibodies for cancer immunotherapy”
Kam M. Hui (National Cancer Center, Singapore)
“Targeting and eradicating human hepatocellular carcinoma cells in vivo with bone marrow-derived human mesenchymal stem cells transduced with oncolytic measles virus”
- 09:00~09:30 **Technical Seminar I** *Chairperson: Mahito Nakanishi*
Makoto Otsu (The Institute of Medical Science, The University of Tokyo)
“Application of emerging technologies to the gene and cellular therapy research: Introduction of an automated fluorescence microscopic imaging system”
- 09:00~16:00 Poster Viewing (continue from Day 1: display alone)
- 09:30~10:00 **Technical Seminar II** *Chairperson: Yuji Heike*
Yukio Nakamura (RIKEN BioResource Center)
“Cell Bank in Japan”
- 10:05~11:05 Oral Session 4-Vector I: Molecular Aspects (OR26~OR31) *Chairpersons: Shuji Kubo & Osam Mazda*
- 11:05~12:05 Oral Session 5-Vector II: Targeting (OR32~OR37) *Chairpersons: Ken-ichiro Kosai & Masashi Urabe*
- 10:05~12:05 **International Symposium (E)** *Chairpersons: Noriyuki Kasahara & Hiroyuki Nakai*
Frank C. Marini (M.D. Anderson Cancer Center, USA)
“Direct evidence for the use of modified mesenchymal stem/stromal cells as anticancer agents in animal models”
Xiao Xiao (University of North Carolina, USA)
“AAV-mediated regional and bodywide gene delivery of mini-dystrophin for DMD gene therapy in GRMD dog model”
Chae-Ok Yun (Yonsei University College of Medicine, Korea)
“Smart nanoconjugate; Opportunity for systemic administration of adenovirus for targeted cancer gene therapy”
Glen N. Barber (University of Miami School of Medicine, USA)
“Vesicular stomatitis virus as a viral therapeutic against cancer”
Paul D. Robbins (University of Pittsburgh School of Medicine, USA)
“Gene therapy for autoimmune diseases”
- 12:10~12:55 Corporate Seminar III (E) *Chairperson: Tatsutoshi Nakahata*
Samuel Wadsworth (Genzyme Corporation, Framingham, MA, USA)
“Developing a gene therapy for the treatment of neovascular age-related macular degeneration”
Corporate Seminar IV *Chairperson: Masafumi Takahashi*
Eiji Kobayashi (Jichi Medical University)
“Bio-imaging animals-Pretest and future application”
- 13:00~13:50 **Special Lecture II (E)** *Chairperson: Hiroshi Shiku*
Richard A. Morgan (National Cancer Institute, National Institutes of Health, USA)
“Recent progress and future directions using engineered T cells for the treatment of cancer”
- 13:55~15:45 **Joint Symposium with the Japanese Vascular Biology and Medicine Organization (E)**
Cell Therapy & Gene Therapy: “New Frontier of Cell & Gene Therapy Toward Clinical Application”
Chairpersons: Ryuichi Morishita & Toshio Kitamura
Ryuichi Morishita (Osaka University Graduate School of Medicine)
“Introduction: Progress of angiogenic gene therapy”
Tohru Minamino (Chiba University Graduate School of Medicine)
“Another phase of therapeutic angiogenesis for cardiovascular disease”
Yoshiaki Taniyama (Osaka University Graduate School of Medicine)
“Hepatocyte growth factor protects senescence and function of endothelial precursor cell through PIP3/Akt inhibition”
Ryosuke Uchibori (Jichi Medical University)
“Mesenchymal stem cells as a cellular vehicle for cancer-targeted gene therapy”
Shin Kaneko (The Institute of Medical Science, The University of Tokyo)
“Leukemia immunotherapy with genetically modified T lymphocytes”
- 13:55~14:25 **Clinical Trial Seminar: "New Advance in Clinical Cancer Gene Therapy" (E)** *Chairperson: Toshihiko Wakabayashi*
Douglas J. Jolly (Tocagen Inc.)
“Progress to the clinic of a novel prodrug activator gene transfer technology for the treatment of cancer”
- 14:25~15:45 Oral Session 6-Cancer III (OR38~OR45) (E) *Chairpersons: Hideaki Tahara & Masato Yamamoto*
- 15:45~16:00 Coffee Break
- 16:00~17:00 **Plenary Session II (PL4~PL7)** *Chairpersons: Izumu Saito & Yasutomo Nasu*
- 17:10~18:35 **Oya Stone Museum**
- 18:45~20:30 **Welcome Reception**

Day III Saturday, July 3

- 09:00~10:30 **Joint Symposium with the Society of Immunotherapy for Hematological Malignancies (E)**
Cancer Immunotherapy & Gene Therapy: **“Genetically-engineered T-cell therapy for cancer”**
Chairpersons: Masaki Yasukawa & Hiroaki Ikeda
Masaki Yasukawa (Ehime University Graduate School of Medicine)
“Introduction”
Hiroaki Ikeda (Mie University Graduate School of Medicine)
“Gene-modified lymphocytes: A translational bridge to effective T cell therapy of cancer”
Hiroshi Fujiwara (Ehime University Hospital)
“Development of a novel anti-leukemia immuno-gene therapy using WT1-specific T-cell receptor gene transfer”
Atsushi Natsume (Nagoya University School of Medicine)
“Immunotherapy using retrovirally engineered T cells expressing chimeric antigen receptors specific to glioma-associated antigens”
Hiroyoshi Nishikawa (Immunology Frontier Research Center, Osaka University)
“Role of regulatory T cells in anti-tumor immune responses”
- 09:00~09:30 **Technical Seminar III** *Chairperson: Hiroyuki Mizuguchi*
Takashi Okada (National Center of Neurology and Psychiatry)
“Attractive features of AAV vector and methods for efficient production”
- 09:30~10:00 **Technical Seminar IV** *Chairperson: Akihiro Kume*
Atsushi Tsuji (National Institute of Radiological Sciences)
“In vivo imaging with radiolabeled antibody”
- 10:05~11:05 Oral Session 7-Cancer IV & Basic Technology (OR46~OR51) (E)
Chairpersons: Teruhiko Yoshida & Hiroyuki Miyoshi
- 11:05~12:05 Oral Session 8-Genetic, Neuromuscular & Other Diseases I (OR52~OR57) (E)
Chairpersons: Hiroyuki Nunoi & Katsuto Tamai
- 10:35~12:05 **Workshop 《Applications of Gene Transfer Technologies》**
1) **Hideki Katagiri** (Tohoku University Graduate School of Medicine) *Chairperson: Toya Ohashi*
“Metabolic harmony via neuronal information highways”
2) **Yutaka Hanazono** (Jichi Medical University) *Chairperson: Fumio Endo*
“The generation and applications of iPS cells with Sendai virus vectors”
3) **Takahiro Ochiya** (National Cancer Center Research Institute) *Chairperson: Hirofumi Hamada*
“Molecular therapy targeting cancer stem cells”
- 12:10~12:55 Corporate Seminar V *Chairperson: Hideharu Sugimoto*
Noboru Oriuchi Gunma (University Graduate School of Medicine)
“Application of 18F-FDG PET for cancer management”
Corporate Seminar VI *Chairperson: Atsushi Natsume*
Yutaka Kondo (Aichi Cancer Center Research Institute)
“Clinical implications of epigenetic treatment in human malignancies”
- 13:00~13:30 **Educational Lecture III** *Chairperson: Yoshikatsu Eto*
Tatsutoshi Nakahata (Center for iPS Cell Research and Application (CiRA), Kyoto University)
“Various clinical applications of human induced pluripotent stem cells (iPS cells)”
- 13:30~14:00 **Educational Lecture IV** *Chairperson: Jun Yoshida*
Tetsuo Noda (The Cancer Institute of the Japanese Foundation for Cancer Research)
“Hunting for molecular targets of cancer therapeutics using animal models of human carcinogenesis”
- 13:00~14:00 Oral Session 9-Genetic, Neuromuscular & Other Diseases II (OR58~OR63)
Chairpersons: Toshinao Kawai & Makoto Migita
- 14:05~15:35 **Panel Discussion 《Future Prospects of Gene Therapy》** *Chairpersons: Keiya Ozawa & Konosuke Mitani*
1) Hematopoietic stem cell gene therapy: **Masafumi Onodera** (National Center for Child Health and Development)
“A current situation of stem cell gene therapy”
2) AAV vector
┌ Applications: **Koichi Miyake** (Nippon Medical School)
│ “Application of AAV vectors for translational research”
└ How can we deal with immune responses? : **Hiroaki Mizukami** (Jichi Medical University)
“Immune responses in AAV-mediated gene transfer”
3) Cancer gene therapy: **Noriyuki Kasahara** (University of California, Los Angeles, USA)
“Clinical gene therapy for cancer and leukemia: Progress and prospects”
- 15:35~15:45 **Closing Remarks: President Keiya Ozawa & Welcome Greetings from the Next President: Kenzaburo Tani**



PROGRAM

Presidential Lecture

Date: July 1, 2010, 13:40-14:05, Sub-Hall
 Chairperson: *Shigetaka Asano*

Keiya Ozawa (*Jichi Medical University*)

Development of gene therapy: Current status and new directions

Special Lecture I (E)

Date: July 1, 2010, 14:05-14:55, Sub-Hall
 Chairperson: *Keiya Ozawa*

Barrie J. Carter (*ASGCT President; Carter BioConsulting, USA*)

Clinical development of AAV vectors: Success in sight

Special Lecture II (E)

Date: July 2, 2010, 13:00-13:50, Sub-Hall
 Chairperson: *Hiroshi Shiku*

Richard A. Morgan (*National Cancer Institute, National Institutes of Health, USA*)

Recent progress and future directions using engineered T cells for the treatment of cancer

Educational Lecture I

Date: July 1, 2010, 15:00-15:30, Sub-Hall
 Chairperson: *Yasufumi Kaneda*

Hiroyuki Sasaki (*Medical Institute of Bioregulation, Kyushu University*)

Epigenetics in human disorder

Educational Lecture II

Date: July 1, 2010, 15:30-16:00, Sub-Hall
 Chairperson: *Yoshiro Niitsu*

Hideyuki Okano (*Keio University School of Medicine*)

Strategies toward CNS-regeneration using iPS cell technology

Educational Lecture III

Date: July 3, 2010, 13:00-13:30, Sub-Hall
 Chairperson: *Yoshikatsu Eto*

Tatsutoshi Nakahata (*Center for iPS Cell Research and Application (CiRA), Kyoto University*)

Various clinical applications of human induced pluripotent stem cells (iPS cells)

Educational Lecture IV

Date: July 3, 2010, 13:30-14:00, Sub-Hall
 Chairperson: *Jun Yoshida*

Tetsuo Noda (*The Cancer Institute of the Japanese Foundation for Cancer Research*)

Hunting for molecular targets of cancer therapeutics using animal models of human carcinogenesis

Main Symposium (E)
“Recent Progress in Gene Therapy”

Date: July 1, 2010, 16:15-18:15, Sub-Hall
Chairpersons: Takashi Shimada & Samuel Wadsworth

Hiroyuki Nakai (*University of Pittsburgh School of Medicine, USA*)
Rapidly evolving adeno-associated viral vectors for gene therapy

Shin-ichi Muramatsu (*Jichi Medical University*)
AADC gene therapy for Parkinson’s disease: A phase I study

Shin’ichi Takeda (*National Center of Neurology and Psychiatry*)
Advances of molecular therapy research on dystrophin-deficient muscular dystrophy

Tomoki Todo (*The University of Tokyo Hospital*)
A clinical study of a third-generation oncolytic HSV-1 (G47Δ) in patients with recurrent glioblastoma

Toshiyoshi Fujiwara (*Okayama University Graduate School*)
Phase I clinical trial of telomerase-specific oncolytic adenovirus for human solid tumors

International Symposium (E)

Date: July 2, 2010, 10:05-12:05, Sub-Hall
Chairpersons: Noriyuki Kasahara & Hiroyuki Nakai

Frank C. Marini (*M.D. Anderson Cancer Center, Houston, USA*)
Direct evidence for the use of modified mesenchymal stem/stromal cells as anticancer agents in animal models

Xiao Xiao (*The University of North Carolina, USA*)
AAV-mediated regional and bodywide gene delivery of mini-dystrophin for DMD gene therapy in GRMD dog model

Chae-Ok Yun (*Yonsei University College of Medicine, Korea*)
Smart nanoconjugate; Opportunity for systemic administration of adenovirus for targeted cancer gene therapy

Glen N. Barber (*University of Miami School of Medicine, USA*)
Vesicular stomatitis virus as a viral therapeutic against cancer

Paul D. Robbins (*University of Pittsburgh School of Medicine, USA*)
Gene therapy for autoimmune diseases

Asian Session (E)

Date: July 2, 2010, 9:00-10:00, Sub-Hall
Chairpersons: Chae-Ok Yun & Masatoshi Tagawa

Sunyoung Kim (*Seoul National University, Korea*)
Enhanced angiogenesis by coexpression of two isoforms of hepatocyte growth factor from naked plasmid DNA: Results from clinical trials for coronary and peripheral artery diseases

Yajun Guo (*Second Military Medical University, China*)
Novel monoclonal antibodies for cancer immunotherapy

Kam M. Hui (*National Cancer Centre, Singapore*)
Targeting and eradicating human hepatocellular carcinoma cells in vivo with bone marrow-derived human mesenchymal stem cells transduced with oncolytic measles virus

Joint Symposium with the Japanese Vascular Biology and Medicine Organization (E)
“New Frontier of Cell & Gene Therapy Toward Clinical Application”

Date: July 2, 2010, 13:55-15:45, Sub-Hall
Chairpersons: *Ryuichi Morishita & Toshio Kitamura*

Ryuichi Morishita (*Osaka University Graduate School of Medicine*)

Introduction: Progress of angiogenic gene therapy

Tohru Minamino (*Chiba University Graduate School of Medicine*)

Another phase of therapeutic angiogenesis for cardiovascular disease

Yoshiaki Taniyama (*Osaka University Graduate School of Medicine*)

Hepatocyte growth factor protects senescence and function of endothelial precursor cell through PIP3/Akt inhibition

Ryosuke Uchibori (*Jichi Medical University*)

Mesenchymal stem cells as a cellular vehicle for cancer-targeted gene therapy

Shin Kaneko (*The Institute of Medical Science, The University of Tokyo*)

Leukemia immunotherapy with genetically modified T lymphocytes

Joint Symposium with the Society of Immunotherapy for Hematological Malignancies (E)
“Genetically-Engineered T-Cell Therapy for Cancer”

Date: July 3, 2010, 9:00-10:30, Sub-Hall
Chairpersons: *Masaki Yasukawa & Hiroaki Ikeda*

Masaki Yasukawa (*Ehime University Graduate School of Medicine*)

Introduction

Hiroaki Ikeda (*Mie University Graduate School of Medicine*)

Gene-modified lymphocytes: A translational bridge to effective T cell therapy of cancer

Hiroshi Fujiwara (*Ehime University Hospital*)

Development of a novel anti-leukemia immuno-gene therapy using WT1-specific T-cell receptor gene transfer

Atsushi Natsume (*Nagoya University School of Medicine*)

Immunotherapy using retrovirally engineered T cells expressing chimeric antigen receptors specific to glioma-associated antigens

Hiroyoshi Nishikawa (*Immunology Frontier Research Center, Osaka University*)

Role of regulatory T cells in anti-tumor immune responses

Workshop
“Applications of Gene Transfer Technologies”

Date: July 3, 2010, 10:35-12:05, Sub-Hall
Chairperson: *Toya Ohashi*

Hideki Katagiri (*Tohoku University Graduate School of Medicine*)
Metabolic harmony via neuronal information highways

Chairperson: Fumio Endo

Yutaka Hanazono (*Jichi Medical University*)
The generation and applications of iPS cells with Sendai virus vectors

Chairperson: Hirofumi Hamada

Takahiro Ochiya (*National Cancer Center Research Institute*)
Molecular therapy targeting cancer stem cells

Panel Discussion
“Future Prospects of Gene Therapy”

Date: July 3, 2010, 14:05-15:35, Sub-Hall
Chairpersons: *Keiya Ozawa & Konosuke Mitani*

Masafumi Onodera (*National Center for Child Health and Development*)
A current situation of stem cell gene therapy

Koichi Miyake (*Nippon Medical School*)
Application of AAV vectors for translational research

Hiroaki Mizukami (*Jichi Medical University*)
Immune responses in AAV-mediated gene transfer

Noriyuki Kasahara (*University of California, Los Angeles, USA*)
Clinical gene therapy for cancer and leukemia: Progress and prospects

Clinical Trial Seminar (E)
“New Advance in Clinical Cancer Gene Therapy”

Date: July 2, 2010, 13:55-14:25, Special Room
Chairperson: *Toshihiko Wakabayashi*

Douglas J. Jolly (*Tocagen Inc., USA*)
Progress to the clinic of a novel prodrug activator gene transfer technology for the treatment of cancer

Technical Seminar I

Date: July 2, 2010, 9:00-9:30, Special Room
 Chairperson: Mahito Nakanishi

Makoto Otsu (*The Institute of Medical Science, The University of Tokyo*)

Application of emerging technologies to the gene and cellular therapy research: Introduction of an automated fluorescence microscopic imaging system

Technical Seminar II

Date: July 2, 2010, 9:30-10:00, Special Room
 Chairperson: Yuji Heike

Yukio Nakamura (*RIKEN BioResource Center*)

Cell Bank in Japan

Technical Seminar III

Date: July 3, 2010, 9:00-9:30, Special Room
 Chairperson: Hiroyuki Mizuguchi

Takashi Okada (*National Center of Neurology and Psychiatry*)

Attractive features of AAV vectors and methods for efficient production

Technical Seminar IV

Date: July 3, 2010, 9:30-10:00, Special Room
 Chairperson: Akihiro Kume

Atsushi Tsuji (*National Institute of Radiological Sciences*)

In vivo imaging with radiolabeled antibody

1st Takara Bio Award Lecture

Date: July 1, 2010, 11:45~12:00, Sub-Hall
 Chairperson: Yasufumi Kaneda

Takashi Okada (*National Center of Neurology and Psychiatry*)

Scalable purification of adeno-associated virus serotype 1 (AAV1) and AAV8 vectors, using dual ion-exchange adsorptive membranes

Plenary Session I (E) (Abstracts PL1~PL3)

Date: July 1, 2010, 11:00-11:45, Sub-Hall

Chairperson: Kenzaburo Tani

PL-1. Simple and efficient generation of foreign-gene-free human iPS cells without chromosomal damage using Sendai virus RNA vectors

Fusaki N., Ban H., Saeki K., Tabata T., Hasegawa M.

PL-2. Ex vivo expansion of human HSC with genotoxicity-free Sendai virus vector transiently expressing HoxB4 assessed by sheep *in utero* transplantation

Masuda S., Abe T., Ban H., Hayashi S., Takahashi H., Inoue M., Hasegawa M., Nagao Y., Hanazono Y.

PL-3. Inhibition of TGF-beta/activin signaling in the early phase or stimulation of activin signaling in the following phase combined with Wnt-3a stimulation enhances the differentiation into cardiac myocytes in mouse embryonic stem cells

Ueno S., Shimada S., Kario K.

Plenary Session II (E) (Abstracts PL4~PL7)

Date: July 2, 2010, 16:00-17:00, Sub-Hall

Chairpersons: Izumu Saito & Yasutomo Nasu

PL-4. Functional analysis of a novel gamma-secretase inhibitor, HIG1

Hayashi H., Nakagami H., Koibuchi N., Shimamura M., Kaneda Y.

PL-5. Gene therapy for aromatic L-amino acid decarboxylase deficiency

Hwu W-L., Muramatsu S., Wu R-M., Tseng S-H., Lee N-C., Snyder R. O., Chien Y-H.

PL-6. Stem cell gene therapy for adenosine deaminase-deficiency: A report of six-year outcomes in 2 treated patients

Otsu M., Onodera M., Yamada M., Kawamura N., Kobayashi R., Kobayashi E., Kitagawa M., Mineno J., Bali P., Hershfield, M. S., Candotti F., Sakiyama Y., Ariga T.

PL-7. Autologous mononuclear cell implantation therapy for critical digit ischemia in patients with connective tissue diseases

Takahashi M., Izawa A., Ishigatsumo Y., Fujimoto K., Miyamoto M., Minota S., Horie T., Aizawa Y., Amano J., Murohara T., Matsubara H., Ikeda U.

Day 1: July 1, 2010

**Oral Session 1 (Abstracts OR8~OR13)
Basic Science**

15:00-16:00, Special Room

Chairpersons: Kazunori Kato & Takanori Yokota

OR-8. Generation of induced pluripotent stem cells from monkey and pig fibroblasts

Fujishiro S., Masuda S., Nishimura T., Fusaki N., Ueda Y., Hasegawa M., Takahashi K., Okita K., Yamanaka S., Hanazono Y.

OR-9. Characterization of iPS cells generated from murine hematopoietic cells

Okabe M., Otsu M., Ahn D. H., Kobayashi T., Morita Y., Wakiyama Y., Onodera M., Eto K., Ema H., Nakauchi H.

OR-10. Gene targeting in human pluripotent stem cells with adeno-associated virus vectors

Mitani K., Mitsui K., Suzuki K., Aizawa E., Kawase E., Suemori H., Nakatsuji N.

OR-11. Search for a key molecule of dendritic cell differentiation

Harada Y., Ueda Y., Yoshida K., Ichikawa T., Yonemitsu Y.

OR-12. Induction of type I interferon by virus-associated small RNAs

Yamaguchi T., Kawabata K., Kouyama E., Suzuki T., Sakurai F., Kurachi S., Katayama K., Mizuguchi H.

OR-13. Histone deacetylases are critical targets of bortezomib-induced cytotoxicity in multiple myeloma

Kikuchi J., Wada T., Shimizu R., Izumi T., Akutsu M., Mitsunaga K., Noborio-Hatano K., Nobuyoshi M., Ozawa K., Kano Y., Furukawa Y.

**Oral Session 2 (Abstracts OR14~OR19)
Cancer I: Oncolytic Virotherapy**

16:15-17:15, Special Room

Chairpersons: Akinobu Gotoh & Hideaki Shimada

OR-14. Efficient killing of glioma-initiating cells derived from human glioblastoma using the third generation oncolytic HSV-1 (G47Δ)

Takahashi M., Ino Y., Saito N., Todo T.

OR-15. Intrapleural inoculation with third generation oncolytic HSV-1 (G47Δ) is highly efficacious for experimental orthotopic malignant pleural mesothelioma

Takahashi M., Ino Y., Todo T.

OR-16. Enhancement of oncolytic virotherapy for malignant glioma: Concomitant administration of type I interferon binding protein

Yoshida K., Ichikawa T., Kurozumi K., Kambara H., Fujii K., Onishi M., Michiue H., Hamada H., Chiocca E. A., Date I.

OR-17. Complete and sustained tumor regression of human malignant mesothelioma xenografts in athymic mice following local injection of midkine promoter-regulated oncolytic adenovirus

Kubo S., Kawasaki Y., Yamaoka N., Xu Y., Yamamoto H., Tagawa M., Kasahara N., Terada N., Okamura H.

OR-18. Development of a novel Coxsackievirus B oncolytic virotherapy against human lung cancer

Inoue H., Miyamoto S., Yamada M., Nakamura T., Urata Y., Shimizu H., Tani K.

OR-19. MicroRNA-regulated oncolytic vaccinia virus not only enhances the oncolytic activity but also reduces the viral pathogenicity

Nakamura T., Hikichi M., Kidokoro M., Shida H., Tahara H.

**Oral Session 3 (Abstracts OR20~OR25)
Cancer II: Immunotherapy**

17:15-18:15, Special Room
Chairpersons: Hiromi Kumon & Masato Abei

- OR-20. Intravenous injection of irradiated tumor cell vaccine carrying oncolytic adenovirus can suppress the growth of multiple lung tumors in mouse squamous cell carcinoma model**
Saito A., Hamada K., Matsuoka T., Lee K-L., Fujisawa M., Kawabata M., Shirakawa T.
- OR-21. Development of anti-leukemia gene-immunotherapy using Aurora-A kinase-specific T-cell receptor gene transfer**
Ochi T., Fujiwara H., Nagai K., An J., Shirakata T., Mineno J., Kuzushima K., Yasukawa M.
- OR-22. The next generation TCR gene therapy: Silencing of endogenous TCR improves the efficacy of TCR gene therapy**
Okamoto S., Ikeda H., Fujiwara H., Yasukawa M., Shiku H., Mineno J.
- OR-23. Immune responses in prostate cancer patients received *in situ* gene therapy of repeated HSV-*tk* injection and ganciclovir administration**
Kubo M., Satoh T., Tabata K., Matsumoto K., Baba S., Obata F.
- OR-24. Intratumoral delivery of interferon-alpha gene enhances tumor-specific immunity and suppresses immunological tolerance after autologous hematopoietic stem cell transplantation**
Narumi K., Udagawa T., Kondoh A., Yoshida T., Aoki K.
- OR-25. Augmented cancer immunotherapy by the use of STAT3-depleted dendritic cells**
Sumimoto H., Iwata-Kajihara T., Mizuguchi H., Takeda K., Kawakami Y.

Day 2: July 2, 2010

**Oral Session 4 (Abstracts OR26~OR31)
Vector I: Molecular Aspects**

10:05-11:05, Special Room
Chairpersons: Shuji Kubo & Osam Mazda

- OR-26. Molecular mechanisms of restricted growth of human adenovirus type 37 in A549 cells**
Mitani K., Adachi K., Moroyama Y.
- OR-27. Enhanced safety profiles of conditionally-replicating adenoviruses by insertion of target sequences to microRNA downregulated in tumor cells**
Sakurai F., Sugio K., Katayama K., Matsui H., Kawabata K., Fujiwara T., Mizuguchi H.
- OR-28. The chicken hypersensitive site-4 chromatin insulator sequence protects clonal dominance of hematopoietic stem cells transduced with a self-inactivating SIV vector in platelet-directed gene therapy**
Ohmori T., Kashiwakura Y., Ishiwata A., Madoiwa S., Akiba E., Hasegawa M., Mimuro J., Ozawa K., Sakata Y.
- OR-29. Optimization of lentiviral vector transduction into peripheral blood lymphocytes in combination with the fibronectin fragment CH-296 stimulation method**
Chono H., Goto Y., Yamakawa S., Tanaka S., Tosaka Y., Nukaya I., Mineno J.
- OR-30. Rendering CD4⁺ T lymphocytes resistant to HIV-1 replication via retroviral transduction of ACA-specific endoribonuclease MazF with Tat-dependent expression system**
Tsuda H., Okamoto M., Chono H., Saito N., Inoue K., Baba M., Mineno J.
- OR-31. Pre-clinical study for HIV-1 gene therapy using autologous transplantation of gene modified CD4⁺ T cells in primate models**
Saito N., Tsuda H., Sakuraba T., Shibata H., Ageyama N., Chono H., Mineno J.

Oral Session 5 (Abstracts OR32~OR37)

Vector II: Targeting

11:05-12:05, Special Room

Chairpersons: Ken-ichiro Kosai & Masashi Urabe

- OR-32. Efficient *in vivo* delivery of cholesterol-conjugated siRNA to the liver using endogenous chylomicron remnant**
Yoshida K., Nishina K., Uno Y., Kuwahara H., Piao W., Mizusawa H., Yokota T.
- OR-33. Histological analysis of *in vivo* liver-targeting pancreatic islet regeneration by helper-dependent adenovirus**
Kojima H., Yechool V., Terashima T., Chan L., Kimura H.
- OR-34. Antibody-targeted selective gene and drug delivery for treatment of malignant melanoma**
Hirai S., Yamaguchi M., Hamada H.
- OR-35. Enhanced transduction efficiencies of fiber-substituted adenovirus vectors by incorporation of RGD peptide in two distinct regions of adenovirus serotype 35 fiber knob**
Matsui H., Sakurai F., Katayama K., Kurachi S., Tashiro K., Sugio K., Kawabata K., Mizuguchi H.
- OR-36. A SeV-F/HN-pseudotyped SIV vector enables long lasting expression in the murine lung, repetitive administration, and efficient transduction to human lung slice/airway models**
Inoue M., Griesenbach U., Akiba E., Meng C., Brum A., Farley R., Newman N., Alton E. W. F. W., Hasegawa M.
- OR-37. Highly efficient gene delivery system into the brain through retrograde axonal transport by using lentiviral vectors pseudotyped with rabies virus glycoprotein and its derivatives**
Kobayashi K., Kato S., Kobayashi K., Inoue K., Takada M.

Oral Session 6 (Abstracts OR38~OR45)

Cancer III (E)

14:25-15:45, Special Room

Chairpersons: Hideaki Tahara & Masato Yamamoto

- OR-38. Cancer immunotherapy with virus-specific T cells engineered to express HER2-specific chimeric antigen receptor using piggyBac transposons system**
Nakazawa Y., Wilson M. H., Rooney C. M.
- OR-39. Engineered T cells using both chemokine-receptor gene and tumor-specific TCR gene transfer for adoptive therapy**
An J., Fujiwara H., Ochi T., Nagai K., Shirakata T., Mineno J., Kuzushima K., Yasukawa M.
- OR-40. Intra-tumor secretion of GITRL-Fc fusion protein induces and activates tumor-specific CD8⁺ T cells resulting in tumor regression**
Ikeda H., Mitsui J., Ishihara M., Hosoi H., Mineno J., Kondo S., Shiku H.
- OR-41. Efficient induction of humoral and cellular immune responses against Her-2/neu by combination of naked DNA and adenoviral vectors expressing genetically engineered Her-2/neu**
Kim D-S., Jeong J-G., Lim S-W., Shim K-W., Lee H-J., Oh S-M., Chae J-A., Cha Y-S., Ho S-H., Hong Y., Hahn W., Kim Sujeong, Kim J-M., Yu S., Kang C-Y., Kim Sunyoung
- OR-42. Adenoviruses-mediated expression and cell-mediated delivery of interferon-lambda achieve anti-tumor effects *in vivo***
Tagawa M., Li Q., Kawamura K., Okamoto S., Yang S., Fujie H., Numazaki M., Shimada H., Kobayashi H.
- OR-43. EpCAM- and EGFR- targeted selective gene therapy for biliary cancers using Z33-fiber modified adenovirus**
Abei M., Kawashima R., Fukuda K., Nakamura K., Murata T., Yokoyama K. K., Hamada H., Hyodo I.

OR-44. Single injection of AAV-8 vector expressing mda-7/IL24 into muscle efficiently suppresses tumor growth in lymphoma model mice

Wang N., Fan B., Miyake K., Miyake N., Shimada T.

OR-45. Suicide gene modified central memory T lymphocyte infusion therapy against relapsed leukemia after allogeneic stem cell transplantation. – An amended protocol of TK-DLI gene therapy

Kaneko S., Ohkoshi Y., Nemoto N., Nanmoku T., Fujisawa C., Suzukawa K., Fukushima T., Otsu M., Hasegawa Y., Sumazaki R., Harada Y., Sakamaki H., Tsuchida M., Kato S., Nagasawa T., Bondanza A., Bonini C., Bordignon C., Nakauchi H., Chiba S.

Day 3: July 3, 2010

**Oral Session 7 (Abstracts OR46~OR51)
Cancer IV & Basic Technology (E)**

10:05-11:05, Special Room

Chairpersons: Teruhiko Yoshida & Hiroyuki Miyoshi

OR-46. Novel therapeutic method using herpes oncolytic virus HF10 to treat advanced cancers

Kasuya H., Sahin T. T., Nomura N., Kanzaki A., Misawa M., Shiota T., Yamada S., Fujii T., Sugimoto H., Shikano T., Nomoto S., Takeda S., Koderia Y., Nakao A., Nishiyama Y.

OR-47. Oncolytic adenovirus with a major late promoter-driven imagine cassette predicts *in vivo* anti-tumor effect

Davydova J., Ono H. A., Gavrikova T., Brown E., Luo X., Curiel D. T., Vickers S. M., Yamamoto M.

OR-48. Oncolytic adenovirus induces autophagic cell death through *microRNA*-7-mediated suppression of EGFR in human cancer cells

Tazawa H., Yano S., Yoshida R., Urata Y., Fujiwara T.

OR-49. Urokinase-targeted cell-cell fusion by oncolytic Sendai virus vector eradicates orthotropic glioblastomas by pronounced synergy with interferon-beta gene

Hasegawa Y., Kinoh H., Iwadate Y., Ueda Y., Inoue M., Hasegawa M., Iuchi T., Saeki N., Yonemitsu Y.

OR-50. Human adenovirus type 40 vector engineering for intestinal mucosa targeting

Yamasaki S., Brown E., Davydova J., Vickers S. M., Yamamoto M.

OR-51. Transvascular transport of recombinant AAV9 vector is a capacity-limited caveolin-1-independent slow process that limits cardiac transduction

Adachi K., Kotchey N. M., Inagaki K., Zahid M., Charan R., Watkins S. C., Parker R., Nakai H.

**Oral Session 8 (Abstracts OR52~OR57)
Genetic, Neuromuscular & Other Diseases I (E)**

11:05-12:05, Special Room

Chairpersons: Hiroyuki Nunoi & Katsuto Tamai

OR-52. Novel gene therapy for polyglutamine diseases to selectively degrade the pathogenic protein

Nukina N., Bauer P. O., Goswami A., Wong H. K., Okuno M., Kurosawa M., Yamada M., Miyazaki H., Matsumoto G., Kino K., Nagai Y.

OR-53. Parkin protects against parkinsonian insults induced by alpha-synuclein overexpression in a primate model

Yamazaki Y., Inoue K., Endo A., Nihira T., Yasuda T., Miyake K., Shimada T., Mizuno Y., Mochizuki H., Takada M.

OR-54. Positron emission tomography assessment of aromatic L-amino acid decarboxylase gene transfer in Parkinson's disease

Asari S., Fujimoto K., Kato S., Mizukami H., Ikeguchi K., Kawakami T., Urabe M., Kume A., Watanabe E., Sato T., Ozawa K., Nakano I., Muramatsu S.

OR-55. Liver-restricted expression of the canine factor VIII gene facilitates prevention of inhibitor formation in factor VIII-deficient mice

Mimuro J., Ishiwata A., Mizukami H., Kashiwakura Y., Takano K., Ohmori T., Madoiwa S., Ozawa K., Sakata Y.

OR-56. Role of CXCR4 signaling in hematopoietic stem cell repopulation

Lai C. Y., Suzuki S., Okabe M., Yamazaki S., Otsu M., Nakauchi H.

OR-57. Lineage⁻/PDGFR α ⁺/c-kit⁻ bone marrow cells are potential target of gene and cell therapy for genetic blistering skin disease, RDEB

Tamai K., Chino T., Yamazaki T., Inuma S., Kaneda Y.

**Oral Session 9 (Abstracts OR58~OR63)
Genetic, Neuromuscular & Other Diseases II**

13:00-14:00, Special Room

Chairpersons: Toshinao Kawai & Makoto Migita

OR-58. Transfection of human hepatocyte growth factor gene ameliorates secondary lymphedema via lymphangiogenesis

Saito Y., Nakagami H., Morishita R., Azuma N., Sasajima T., Kaneda Y.

OR-59. Transdifferentiation of glioblastoma cells into vascular endothelial cells

Soda Y., Marumoto T., Friedmann-Morvinski D., Soda M., Liu F., Michiue H., Kesari S., Yang M., Hoffman R. M., Verma I. M.

OR-60. Successful factor IX expression by IV administration of AAV8 vectors in macaques

Mizukami H., Mimuro J., Ishiwata A., Yagi H., Ohmori T., Madoiwa S., Tsukahara T., Urabe M., Kume A., Sakata Y., Ozawa K.

OR-61. Widespread transduction in the CNS and phenotypic correction of MLD model mice by systemic neonatal injection of serotype 9 AAV vector

Miyake N., Miyake K., Asakawa N., Okabe M., Yamamoto M., Shimada T.

OR-62. Lentiviral vector mediated delivery of full-length dystrophin for gene therapy of muscular dystrophy

Kimura E., Uchino K., Suga T., Koide T., Uchida Y., Maeda Y., Yamashita S., Chamberlain J., Uchino M.

OR-63. rAAV9-microdystrophin-mediated oral immunotolerance induction in canine X-linked muscular dystrophy

Hayashita-Kinoh H., Yugeta N., Okada H., Nitahara-Kasahara Y., Okada T., Takeda S.

(Abstracts: PO64~PO94) Basic Science

- PO-64. Tissue specific RNAi knockdown of DNA replication machinery in *Drosophila* showed requirement of replication factors in endoreplication, gene amplification and development**
Kohzaki H., Murakami Y.
- PO-65. A flow cytometry-based method for screening of effective small interfering RNA target sequences**
Kamio N., Hirai H., Satake S., Tanaka R., Nagao R., Yao H., Hayashi Y., Takeuchi M., Ashihara E., Maekawa T.
- PO-66. The validation of siRNAs targeting mammalian target of rapamycin (mTOR) with cross-species activity to induce anti-tumoral effect**
Ahn J., Ko A., Jun E. J., Won M., Kim S. W., Lee H.
- PO-67. A functional analysis of microRNA aberrantly expressed in leukemic cells**
Enomoto Y., Kitaura J., Sonoki T., Nakakuma H., Kitamura T.
- PO-68. Identification of “oncogenic microRNA” as new therapeutic targets in malignant lymphoma**
Tagawa H., Yamanaka Y., Watanabe A., Inomata M., Sawada K.
- PO-69. MicroRNA-222 is a potential target for developing blood-based biomarker assay and treatment of malignant glioma**
Ueda R., Qian L., Yaguchi T., Kosaka N., Fujita T., Okada H., Ochiya T., Kawakami Y.
- PO-70. Development of new pMXs-based retrovirus vectors expressing shRNA**
Enomoto Y., Kitaura J., Nishimura K., Kitamura T.
- PO-71. Silencing of a targeted protein in platelets using a lentiviral vector delivering short hairpin RNA sequence**
Ohmori T., Kashiwakura Y., Ishiwata A., Madoiwa S., Mimuro J., Sakata Y.
- PO-72. c-Cbl regulates interaction of immature hematopoietic cells with the bone marrow microenvironment by Rac GTPase-mediated cytoskeletal signals**
Uehara E., Suzuki T., Okabe H., Ueda M., Nagai T., Sanada M., Ogawa S., Ozawa K.
- PO-73. Differentiation of human mesenchymal stem cells: The potential mechanism for estrogen-induced preferential osteoblast vs. adipocyte differentiation**
Wan Y., Zhao Z., Gao Z., Mei H., Li Y.
- PO-74. Mesenchymal stem cells inhibit Th17 differentiation through indoleamine-2,3-dioxygenase (IDO) and PGE2 production**
Tatara R., Ozaki K., Kikuchi Y., Hatanaka K., Oh I., Meguro A., Matsu H., Sato K., Nagai T., Muroi K., Ozawa K.
- PO-75. The effect of DMXAA (5,6-di-methylxanthenone-4-acetic acid) on MSC accumulation in tumor sites**
Uchibori R., Mizuguchi H., Tsukahara T., Urabe M., Mizukami H., Kume A., Ozawa K.
- PO-76. *In vivo* comparison of the stemness ability among CD34⁺ cells derived from cord blood, bone marrow, peripheral blood using NOD/SCID x IL-2R γ ^{null} (NOG) mice**
Horiuchi Y., Otsu M., Kiyokawa N., Fujimoto J., Onodera M.
- PO-77. Glycine regulates the cell proliferation and differentiation of tissue stem cells and mouse embryonic stem cells**
Nakamura Y., Matsumoto S., Shiraki N., Mochida T., Nakamura K., Takehana K., Kume S., Endo F.
- PO-78. Defining hypo-methylated region of stem cell-specific promoters despite general hyper-methylation status in human iPS cells**
Nishino K., Toyoda M., Yamazaki-Inoue M., Makino H., Fukawatase Y., Chikazawa E., Takahashi Y., Akutsu H., Umezawa A.

- PO-79. Stem cell therapy for diabetes mellitus: Salivary gland derived progenitors**
Matsumoto S., Okumura K., Hattori K., Iwai M., Nakamura K., Matsumoto M., Kaji Y., Nagashima H., Endo F.
- PO-80. Cell processing of gene transduced T cells by RN/OKT3-stimulation method**
Tanaka S., Nukaya I., Kobori H., Mineno J.
- PO-81. Lymphocyte expansion from peripheral blood using recombinant human fibronectin fragment (CH-296; RetroNectin)**
Yamaki Y., Wakeda T., Kaida M., Hoshi Y., Takahashi N., Yamagata S., Shimada M., Ikarashi Y., Aoki K., Takaue Y., Heike Y.
- PO-82. Bio-luminescent imaging and characterization of organ-specific metastasis of human cancer in NOD/SCID mice**
Murakami T., Chun N. A., Takahashi M.
- PO-83. A third generation oncolytic HSV-1 armed with luciferase demonstrates persistent viral replication in tumors but not in normal organs**
Wu Y., Ino Y., Todo T.
- PO-84. False biological activities of hyaluronic acids are caused by impurities in the reagents**
Sato K., Ozaki K., Matsu H., Tatara R., Meguro A., Oh I., Hatanaka K., Nagai T., Muroi K., Ozawa K.
- PO-85. Growth inhibition by transduced hepcidin peptides in human embryonic kidney cells**
Sasaki K., Ikuta K., Hosoki T., Ohtake T., Mizukami Y., Torimoto Y., Kohgo Y.
- PO-86. Pro-proliferative functions of *Drosophila* small mitochondrial heat shock protein 22 in human cells**
Ryu J., Wadhwa R., Gao R., Choi I-K., Morrow G., Rajput K., Kim I., Kaul S. C., Yun C-O., Tanguay R. M.
- PO-87. Identification of novel minor histocompatibility antigens using HapMap EBV-LCL panels transduced with restricting HLA cDNA**
Akatsuka Y., Yamamura T., Bleakley M., Hikita J., Hamajima T., Nannya Y., Matsubara A., Riddell S. R., Takahashi T., Kuzushima K., Ogawa S.
- PO-88 APOA-1 is a novel marker of erythroid cell maturation from hematopoietic stem cell**
Inoue T., Sugiyama D., Kurita R., Oikawa T., Kulkeaw K., Kawano H., Miura Y., Okada M., Suehiro Y., Takahashi A., Marumoto T., Inoue H., Komatsu N., Tani K.
- PO-89. Array-based genomic resequencing of acute myeloid leukemia**
Yamashita Y., Mano H.
- PO-90. Serum anti-BPAG1 auto-antibody is a novel marker for human melanoma**
Shimbo T., Tanemura A., Yamazaki T., Tamai K., Katayama I., Kaneda Y.
- PO-91. Oxysterol binding protein like10 (OSBPL10) is associated with dyslipidemia**
Nakagami H., Koriyama H., Katsuya T., Sugimoto K., Morishita R., Rakugi H., Kaneda Y.
- PO-92. A quick and reliable method for titration of adenoviral vectors not using 293 cells**
Kanegae Y., Pei Z., Terashima M., Kondo S., Saito I.
- PO-93 Development of an enzyme-linked immunosorbent assay method for rapid screening of anti-AAV-2 antibodies**
Ito T., Yamamoto S., Hayashi T., Koderia M., Mizukami H., Ozawa K., Nakano I., Muramatsu S.
- PO-94. Prevalence of neutralizing antibodies against adeno-associated virus 2, 8 and 9 in non-human primate colonies using sensitive assay system**
Yagi H., Mizukami H., Tsukahara T., Urabe M., Hamada H., Kume A., Yoshikawa H., Ozawa K.

(Abstracts: PO95~PO110) Vector

- PO-95. Enhancement of adenoviral gene delivery and non-soluble drug delivery using proteoliposome containing apolipoproteins A-I**
Cho K-H.

- PO-96. Engineering DRG-targeted helper-dependent adenoviruses for selective gene delivery**
Terashima T., Oka K., Kritz A. B., Kojima H., Yamakawa I., Kawai H., Sanada M., Baker A. H., Chan L.
- PO-97. An adeno-associated virus vector efficiently and specifically transduce mouse skeletal muscle**
Murakami I., Takeuchi T., Fujii T., Aoki D., Kanda T.
- PO-98. TROP2-targeted selective gene therapy for non-small cell lung cancer (NSCLC)**
Yamaguchi M., Hirai S., Hamada H.
- PO-99. Evaluation of SSX4 gene promoter for tumor-specific suicide gene therapy**
Yawata T., Ishida E., Shimizu K.
- PO-100. Gene transduction into human hepatocytes transplanted into a chimeric mouse by using self-complementary recombinant AAV8 vectors**
Ishida Y., Urabe M., Yamasaki C., Yanagi A., Yoshizane Y., Ozawa K., Tateno C.
- PO-101. Editing cis elements required for AAV integration to enhance AAVS1-targeted integration**
Urabe M., Miyata S., Onishi A., Tsukahara T., Mizukami H., Kume A., Ozawa K.
- PO-102. Prevention of teratogenesis in iPSC-based therapies with Nanog promoter driving HSV-TK / GCV mediated “pluripotent cell-suicide” system**
Okimoto Y., Kaneko S., Yamaguchi T., Yamazaki S., Goto H., Inoue Y., Nakauchi H.
- PO-103. “TET-OFF” lentiviral vectors drive high-level transgene expression in marmoset brains**
Watakabe A., Takaji M., Nakagami Y., Hioki H., Kaneko T., Kato S., Kobayashi K., Kawashima T., Okuno H., Bito H., Kitamura Y., Yamamori T.
- PO-104. Expression of halorhodopsin for suppression of neuronal transmission in the central nervous system of the mouse and monkey with viral vectors**
Kinoshita M., Kaneda K., Kasahara H., Hatanaka N., Matsui R., Chiken S., Isa K., Mizukami H., Ozawa K., Watanabe D., Nambu A., Isa T.
- PO-105. Tracking of specific integrant clones in dogs treated with foamy virus vectors**
Ohmine K., Li Y., Bauer Jr T. R., Hickstein D. D., Ozawa K., Russell D. W.
- PO-106. An erasable (hit-and-run) vector based on RNA replicon viruses may be useful in cell-programing/reprogramming without chromosomal damages**
Ban H., Fusaki N., Iida A., Ueda Y., Inoue M., Hasegawa M.
- PO-107. A novel method for gene transfer to mammalian cells by using Sendai virus-based minigenome system**
You J., Inoue M., Tabata T., Shu T., Hasegawa M.
- PO-108. Highly efficient gene transfer system using a laminin–DNA–apatite composite layer**
Tsurushima H., Oyane A., Ito A., Matsumura A.
- PO-109. Development of electromotor-driven system for hydrodynamic gene delivery**
Suda T., Imai T., Kamimura K., Oda M., Kanefuji T., Zhang G., Liu D., Yokoo T., Tamura Y., Igarashi M., Kawai H., Aoyagi Y.
- PO-110. Development of high-performance HVJ-E for cancer therapy**
Saga K., Tamai K., Yamazaki T., Kaneda Y.

(Abstracts: PO111~PO138) Cancer

- PO-111. Ex vivo expansion of primary T-lymphocytes expressing a chimeric antigen receptor targeting CD19 with antigen stimulation**
Tsukahara T., Sakurai C., Ohmine K., Uchibori R., Urabe M., Mizukami H., Kume A., Riviere I., Sadelain M., Brentjens R. J., Ozawa K.
- PO-112. Enhanced human T cell activity by silencing B7-H1 and B7-DC with siRNA**
Iwamura K., Kato T., Miyahara Y., Naota H., Mineno J., Okamoto S., Ikeda H., Shiku H.

- PO-113. A novel selective culture method of natural killer cells stimulated with alpha-galactosylceramide and Retronectin leads to the gene-transduction to NK cells**
Wakeda T., Yamaki Y., Kaida M., Hoshi Y., Takahashi N., Yamagata S., Shimada M., Takaue Y., Heike Y.
- PO-114. Antigen mRNA-transfected, fibroblasts loaded with NKT cell ligand as adjuvant vector cells confer antitumor immunity**
Fujii S., Asakura M., Shimizu K.
- PO-115. Establishment of aggressive MLL/AF4 induced lymphoma model mice through up-regulation of HoxA9 and S100A6 expression**
Tamai H., Miyake K., Takatori M., Miyake N., Yamaguchi H., Dan K., Shimada T., Inokuchi K.
- PO-116. Transactivation of the dopamine receptor 3 gene by a single provirus integration results in development of B cell lymphoma in transgenic mice generated from retrovirally transduced embryonic stem cells**
Onodera M., Hirata Y., Hamanaka S.
- PO-117. A combination of a DNA-chimera siRNA against PLK-1 and zoledronic acid suppresses the growth of malignant mesothelioma cells *in vitro***
Kawata E., Ashihara E., Hirai H., Maekawa T.
- PO-118. Involvement of intercellular junctions mediated by E-cadherin in the resistance of ovarian mucinous carcinoma to anticancer drugs**
Saga Y., Mizukami H., Takei Y., Urabe M., Kume A., Suzuki M., Ozawa K.
- PO-119. Galanin receptor type 1 suppresses proliferation in head and neck cancer cells**
Kanazawa T., Matsuzawa S. Hara M. Hasegawa M., Kodama K., Shinnabe A., Kanazawa H., Iino Y.
- PO-120. RCAN1 interacts with tumor suppressors and plays an important role in the survival of leukemia cells**
Fujiwara S., Nagai T., Kikuchi S., Uesawa M., Sakurai C., Ohmine K., Kikuchi J., Furukawa Y., Ozawa K.
- PO-121. Gene therapy for malignant mesothelioma using 'BioKnife', an urokinase-targeted oncolytic Sendai virus**
Morodomi Y., Yano T., Kinoh H., Yoshida T., Ito K., Shikada Y., Maruyama R., Yoshida K., Ueda Y., Inoue M., Hasegawa M., Maehara Y., Yonemitsu Y.
- PO-122. Combination of adenovirally delivered tumor necrosis factor-alpha with nafamostat mesilate is effective for pancreatic cancer by inhibiting NF-κB activation**
Furukawa K., Iida T., Fujiwara Y., Shiba H., Uwagawa T., Misawa T., Shimada Y., Kobayashi H., Ohashi T., Yanaga K.
- PO-123. Administration route-dependent induction of antitumor immunity by interferon-alpha gene transfer**
Udagawa T., Narumi K., Kondoh A., Goto N., Yoshida T., Aoki K.
- PO-124. E1B-55K-deleted oncolytic adenovirus CRAd-NTR(PS1217H6) caused mitotic catastrophe in colon cancer cells**
Chen M-J., Searle P. F., Chen Y-J.
- PO-125. Effect of decorin on overcoming the extracellular matrix barrier for oncolytic virotherapy**
Choi I-K., Le Y-S., Yoo J. Y., Yoon A-R., Choi H. J., Seidler D. G., Yun C-O.
- PO-126. Adenovirus-mediated decorin expression induces cell death through activation of p53 and mitochondrial apoptosis**
Yoon A-R., Yun C-O.
- PO-127. Combination therapy of conditionally replicating relaxin-expressing adenovirus with radiation effectively inhibits tumor growth**
Kim M., Kim J., Yoo J-Y., Kwon O-J., Yun C-O.
- PO-128. Tumor suppression by apoptotic and anti-angiogenic effects of mortalin targeting adeno-oncolytic virus**
Ryu J., Yoo J. Y., Gao R., Yaguchi T., Kaul S. C., Wadhwa R., Yun C-O.
- PO-129. Oncolytic adenovirus co-expressing IL-12 and IL-18 improves tumor-specific immunity via differentiation of T cells co-expressing IL-12Rβ₂ and IL-18Rα**
Choi I-K., Lee J-S., Zhang S-N., Yun C-O.

- PO-130. Combined gene therapy using adenovirus expressing interleukin-12, granulocyte-macrophage colony-stimulating factor, and thymidine kinase with prodrug ganciclovir**
Kim J-S., Choi K-J., Yun C-O.
- PO-131. Optimizing dendritic cell vaccination by combination with oncolytic adenovirus coexpressing interleukin-12 and granulocyte-macrophage colony stimulating factor**
Zhang S-N., Huang J-H., Yoo J. Y., Choi K-J., Yun C-O.
- PO-132. Oncolytic virus therapy for bladder cancer using a third-generation HSV-1 armed with interleukin 12**
Hou G., Fukuhara H., Tsurumaki Y., Homma Y., Ino Y., Todo T.
- PO-133 A phase I/II study of adenovirus-mediated interleukin-12 gene therapy for hormone refractory prostate cancer; An interim report**
Sasaki K., Nasu Y., Kaku H., Watanabe M., Edamura K., Saika T., Kumon H., Brenner M. K.
- PO-134. QOL score evaluation following IL-12 gene therapy for prostate cancer- An initial report of 2 cases**
Onitake M., Kobayashi A., Ohta N., Munemiya M., Abarzua F., Nasu Y.
- PO-135. Gene therapy clinics online: The direct-to-consumer business of gene therapy**
Endo Y.
- PO-136 Induction of long-term anti-tumoral effects via recombinant adeno-associated virus and its validation using micro-PET**
Kim J. Y., Kim J. H., Lee W. I., Moon D. H., Lee H.
- PO-137. Tumoricidal bystander effect in the suicide gene therapy using mesenchymal stem cells does not injure normal brain tissues**
Namba H., Amano S., Koizumi S.
- PO-138. Control of tumor-targeting *Salmonella* dissemination by host B-cell**
Lee C-H., Wu C-L., Hsieh J-L., Chen S-H., Shiau A-L.

(Abstracts: PO139~PO160) Genetic and Other Diseases

- PO-139. Choice of small-sized promoter for AAV-mediated factor IX expression in skeletal muscle**
Kume A., Yagi H., Mizukami H., Urabe M., Tsukahara T., Ishiwata A., Mimuro J., Madoiwa S., Ohmori T., Sakata Y., Ozawa K.
- PO-140. Neonatal gene therapy for the mouse model of Krabbe disease**
Kobayashi H., Ariga M., Shimada Y., Izuka S., Yokoi T., Iwamoto T., Fukuda T., Ida H., Eto Y., Ohashi T.
- PO-141. Long term gene expression in neonatal lentiviral gene therapy of MPS VII mice**
Ariga M., Kobayashi H., Kaneshiro E., Shimizu H., Izuka S., Ohashi T., Eto Y., Ida H.
- PO-142. Chimerism of bone marrow reduces the glycolipid storage in Fabry disease mice**
Yokoi T., Kobayashi H., Fukuda T., Eto Y., Ida H., Ishige N., Kitagawa T., Otsu M., Nakauchi H., Ohashi T.
- PO-143. AAV vector-mediated expression of interleukin-10 suppresses proteinuria in Zucker fatty rats through the improvement of glomerular hypertrophy and podocyte injury**
Ogura M., Urabe M., Onishi A., Ito T., Tsukahara T., Mizukami H., Kume A., Kusano E., Ozawa K.
- PO-144. Bone marrow mononuclear cell transplantation accelerates functional recovery after stroke in murine model**
Hirose H., Kasahara Y., Myojin K., Nakano A., Saino O., Nakagomi T., Matsuyama T., Taguchi A.
- PO-145. Critical role of hyaluronan derived from vascular smooth muscle cells in neointimal formation after vascular Injury**
Kashima Y.
- PO-146. Treatment of ischemic digits caused by connective tissue disease with local implantation of autologous bone marrow or peripheral blood mononuclear cells**
Kamata Y., Iwamoto M., Muroi K., Minota S.

- PO-147** 5' Tri-phosphate siRNA ; Attenuation of coxsackieviral myocarditis through gene silencing and RIG-I dependent interferon activation
Ahn J., Ko A., Jun E. J., Won M., Kim Y. K., Lee H.
- PO-148. Long-term engraftment and survival of allogeneic transplanted multipotent mesenchymal stromal cells in Duchenne muscular dystrophy dog without immunosuppressant**
Nitahara-Kasahara Y., Hayashita-Kinoh H., Okada H., Shin J-H., Nishiyama A., Ohshima-Hosoyama S., Nakamura A., Okada T., Takeda S.
- PO-149. Feasibility study of adeno-associated virus (AAV) vector-mediated gene therapy for muscular dystrophy: Efficacy and safty of AAV serotype 2, 8, and in normal primate**
Ishii A., Okada H., Hayashita Kinoh H., Shin J-H., Katakai Y., Ono F., Okada T., Takeda S.
- PO-150. Hippocampal expression of GAD inhibits epileptogenesis in EL mice**
Shimazaki K., Oguro K., Yokota H., Watanabe E., Kato K., Murashima Y., Kasahara Y., Okada T.
- PO-151. AAV-OXTR vectors developed for the analysis of maternal behavior under the control of OXT/OXTR system**
Osada D., Sato K., Aoyagi Y., Mizukami H., Ozawa K., Nishimori K.
- PO-152. Parkin gene therapy in a long-term MPTP-minipump mouse model of Parkinson's disease; A second report**
Yasuda T., Mochizuki H.
- PO-153. Therapeutic vaccine in SIVmac239-infected rhesus macaque**
Shimada M., Okuda K.
- PO-154** AAV1-mediated IL-10 gene-delivery improves glucose and energy metabolism in high-fat diet-induced obese mice
Nakata M., Yamamoto S., Okada T., Ozawa K., Yada T.
- PO-155. Altered effector CD4⁺ T cell function in IL-21R^{-/-} CD4⁺ T cell-mediated graft-versus-host-disease**
Oh I., Ozaki K., Meguro A., Kadowaki M., Matsu H., Hatanaka K., Tatara R., Sato K., Iwakura Y., Nakae S., Sudo K., Teshima T., Leonard W. J., Ozawa K.
- PO-156. Blocking of IL-21 signal attenuates graft-versus-host disease but not graft-versus-leukemia effect in a mouse model**
Meguro A., Ozaki K., Oh I., Matsu H., Hatanaka K., Tatara R., Leonard W. J., Ozawa K.
- PO-157. STAT3 activation is required for acute graft-versus host disease**
Matsu H., Ozaki K., Meguro A., Hatanaka K., Tatara R., Oh I., Sato K., Mori M., Muroi K., Nagai T., Ozawa K.
- PO-158. Transplanted allogeneic fetal membrane-derived mesenchymal stem cells contribute to renal repair in glomerulonephritis**
Isaka Y., Tsuda H., Yamahara K., Ikeda T., Takabatake Y., Rakugi H.
- PO-159. Mesenchymal stem cells stably transduced with a dominant negative inhibitor of MCP-1 greatly attenuated bleomycin-induced lung damage**
Saito S., Nakayama T., Hashimoto N., Miyata Y., Egashira K., Yamamoto K., Hasegawa Y., Naoe T.
- PO-160. Treatment with mesenchymal stem cells against steroid-resistant acute graft-versus-host disease after hematopoietic stem cell transplantation**
Mori M., Muroi K., Sato K., Sasazaki M., Matsuyama T., Ozaki K., Ozawa K.

Corporate Seminars

►Day I

Corporate Seminar-I (Takara Bio Inc.)

Thursday, JULY 1, 2010
12:05-12:50, Special Room

Chair: Kazuto Takesako (Gene Medicine Business Unit, Takara Bio Inc.)

Introduction of tools, technologies and applications for acceleration of your research and development of gene therapy

Junichi Mineno (Center for Cell and Gene Therapy, Takara Bio Inc.)

Corporate Seminar-II (DNAVEC Corporation)

Thursday, JULY 1, 2010
12:05-12:50, 1st Room

Chair: Yutaka Hanazono (Center for Molecular Medicine, Jichi University)

1. Efficient generation of iPS cells free from chromosomal damages and transgenes using an RNA replicon system, Sendai virus vector

Noemi Fusaki (PRESTO Research Leader, Unit of Cell Therapy & Regenerative Medicine, DNAVEC Corporation)

2. Development of DVC1-0101, a recombinant Sendai virus expressing human FGF-2, as a RNA drug to treat peripheral arterial disease

Yoshikazu Yonemitsu (R&D Laboratory for Innovative Biotherapeutics, Graduate School of Pharmaceutical Sciences, Kyushu University)

►Day II

Corporate Seminar-III (Genzyme Japan K. K.) English presentation

Friday, JULY 2, 2010
12:10-12:55, Special Room

Chair: Tatsutoshi Nakahata (Center for iPS Cell Research and Application (CiRA), Institute for Integrated Cell-Material Sciences, Kyoto University)

Developing a gene therapy for the treatment of neovascular age-related macular degeneration

Samuel Wadsworth (Department of Molecular Biology, Genzyme Corporation, Framingham, MA, USA)

Corporate Seminar-IV (Otsuka Pharmaceutical Factory Inc.)

Friday, JULY 2, 2010
12:10-12:55, 1st Room

Chair: Masafumi Takahashi (Jichi Medical University)

Bio-imaging animals-Pretest and future application

Eiji Kobayashi (Center for Development of Advanced Medical Technology, Jichi Medical University)

►Day III

Corporate Seminar-V (Nihon Medi-Physics Co., Ltd.)

Saturday, JULY 3, 2010
12:10-12:55, Special Room

Chair: Hideharu Sugimoto (Jichi Medical University)

Application of 18F-FDG PET for cancer management

Noboru Oriuchi (Gunma University Graduate School of Medicine)

Corporate Seminar-VI (Nippon Shinyaku Co., Ltd.)

Saturday, JULY 3, 2010
12:10-12:55, 1st Room

Chair: Atsushi Natsume (Center for Genetic and Regenerative Medicine, Nagoya University School of Medicine)

Clinical implications of epigenetic treatment in human malignancies

Yutaka Kondo (Aichi Cancer Center Research Institute)
