



PROGRAM

Presidential Lecture

Date: August 7, 2014, 11:30-11:50, Convention Hall
Chairperson: Shigetaka Asano

Izumu Saito (*The Institute of Medical Science, The University of Tokyo*)
New generation adenovirus vectors

Special Symposium I (E) JSGT, ESGCT, ASGCT- Joint Meeting

Date: August 7, 2014, 9:30-11:30, Convention Hall
Chairpersons: Yasufumi Kaneda & Yoshiro Niitsu

SS1-1. Yasufumi Kaneda (*JSGT, Graduate School of Medicine, Osaka University*)
Development of anti-cancer strategies using Sendai virus envelope (HVJ-E) and current status of clinical applications to treat cancer patients

SS1-2. Gerard Wagemaker (*ESGCT, Erasmus University Medical Center, Netherlands*)
Gene therapy topics in the European Commission's Research Programs

SS1-3. Harry L. Malech (*ASGCT, National Institute of Health, USA*)
Lentivector gene therapy with non-myeloablative conditioning restored IgG production in two young adults with SCID-X1

Special Symposium II Gene Therapy from Company's Viewpoint

Date: August 7, 2014, 15:30-17:20, Convention Hall
Chairpersons: Takashi Shimada & Teruhide Yamaguchi

SS2-1. Kazutoh Takesako (*Takara Bio Inc.*)
Clinical trials of immunotherapy using genetically engineered T cells for cancer in Japan

SS2-2. Satoru Hayata (*GlaxoSmithKline K. K.*)
Contribution to gene therapy and key issues in Japan

SS2-3. Eriko Uchida (*National Institute of Health Science*)
Current situation of advanced therapy regulation in the world

SS2-4. Masakazu Hirata (*Pharmaceuticals and Medical Devices Agency*)
Regulatory pathway of gene therapy products in Japan

Main Symposium I (E) Clinical Gene Therapy: From Concept to Reality

Date: August 6, 2014, 14:00-15:50, Convention Hall
Chairpersons: Masafumi Onodera & Keiya Ozawa

MS1-1. Masafumi Onodera (*National Research Institute for Child Health and Development*)
Stem cell gene therapy goes beyond stem cell transplantation?

MS1-2. Shin-ichi Muramatsu (*Jichi Medical University*)
Gene therapy for neurological diseases: Novel and feasible approaches

MS1-3. Harald Petry (*uniQure N.V. Netherlands*)
Glybera, the first in a row of promising AAV-based gene therapy products

MS1-4. Renier J. Brentjens (*Memorial Sloan Kettering Cancer Center, USA*)
CAR T cell therapy of cancer: Moving technology forward

MS1-5. Junichi Mineno (*Center for Cell and Gene Therapy, Takara Bio Inc.*)
Development of T lymphocytes-based gene therapy for refractory cancers in Japan

Main Symposium II
Genome, Cancer, Reprogramming and Gene Therapy

Date: August 8, 2014, 13:00-14:50, Convention Hall
Chairpersons: Yasufumi Kaneda & Izumu Saito

MS2-1. Masayo Takahashi (*Center for Developmental Biology, RIKEN*)
Application of iPS cells to retinal disease

MS2-2. Tetsuo Noda (*Cancer Institute, Japanese Foundation for Cancer Research*)
Future direction of cancer research to realize effective cancer prevention and treatment

MS2-3. Sumio Sugano (*Graduate School of Frontier Sciences, The University of Tokyo*)
Use of next generation sequencers and the era of personal genomics

MS2-4. Keiya Ozawa (*The Institute of Medical Science, The University of Tokyo*)
Revival of clinical gene therapy: Promising challenge for development of innovative treatments

International Symposium (E)
Establishing the Asian Community to Promote Gene Medicine
Supported by CRMSA

Date: August 7, 2014, 13:00-14:50, Convention Hall
Chairpersons: Masatoshi Tagawa & Chae-Ok Yun

IS-1. Steve Wilton (*Centre for Comparative Genomics, Murdoch University, Australia*)
Therapeutic alternative splicing: application to Duchenne muscular dystrophy and beyond

IS-2. Kam Man Hui (*National Cancer Centre, Singapore*)
To decipher the functional roles for tumor cell heterogeneity to enable the identification of potential novel molecular entities for targeted therapy

IS-3. Chae-Ok Yun (*Hanyang University, Korea*)
Sustained and controlled delivery of oncolytic adenovirus with injectable alginate gel matrix system

IS-4. Wuh Liang Hwu (*Children's Hospital Building National Taiwan University Hospital, Taiwan*)
Gene therapy for aromatic L-amino acid decarboxylase (AADC): follow up of 8 cases

IS-5. Rita Mulherkar (*Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), India*)
Cancer research and gene therapy: The Indian scenario

Symposium I (E)
Cancer

Date: August 6, 2014, 16:00-17:50, Convention Hall
Chairpersons: Noriyuki Kasahara & Tomoki Todo

S1-1. Hiroshi Fukuhara (*Graduate School of Medicine, The University of Tokyo*)
An ongoing clinical trial of a third-generation oncolytic HSV-1 G47 Δ for patients with castration resistant prostate cancer

S1-2. Noriyuki Kasahara (*University of Miami, USA*)
Retroviral replicating vector (RRV)-mediated gene therapy of cancer: Clinical update

S1-3. Glen N. Barber (*The University of Miami Miller School of Medicine, USA*)
Defective innate immune pathways enable viral oncolysis

S1-4. Kenzaburo Tani (*Medical Institute of Bioregulation, Kyushu University*)

Development of novel oncolytic virotherapy using RNA viruses

S1-5. Naoyoshi Hashimoto (*National Cancer Center*)

Use of donor T-lymphocytes expressing Herpes Simplex Virus Thymidine Kinase suicide gene in allogeneic hematopoietic stem cell transplantation

Symposium II (E)

Genetic Diseases

Date: August 7, 2014, 13:00-14:50, Lecture Room-1

Chairpersons: Toya Ohashi & Torayuki Okuyama

S2-1. Harry L. Malech (*ASGCT, National Institutes of Health, USA*)

AAVS1 safe harbor mini-gene targeting for correction of chronic granulomatous disease

S2-2. Toshinao Kawai (*National Center for Child Health & Development*)

Gene therapy clinical research for chronic granulomatous disease

S2-3. Hiroaki Mizugami (*Jichi Medical University*)

Immune responses in hemophilia gene therapy

S2-4. Toya Ohashi (*Jikei University School of Medicine*)

Obstacles of current treatments for lysosomal storage diseases; Necessity of development of gene therapy

S2-5. Torayuki Okuyama (*National Center for Child Health & Development*)

Recent progress in gene therapy for inherited metabolic diseases

Symposium III (E)

Cell Therapy/Regenerative Medicine

Date: August 8, 2014, 10:00-11:50, Convention Hall

Chairpersons: Yuji Heike & Makoto Otsu

S3-1. Gerard Wagemaker (*ESGCT, Erasmus University Medical Center, Netherlands*)

Lentiviral hematopoietic stem cell gene therapy for immune deficiencies and lysosomal enzyme deficiencies

S3-2. Makoto Otsu (*The Institute of Medical Science, The University of Tokyo*)

Utilization of induced pluripotent stem cells for gene therapy research

S3-3. Renier J. Brentjens (*Memorial Sloan Kettering Cancer Center, USA*)

The next generation of adoptive T cell cancer therapy: CARs and armored CARs

S3-4. Won Kyung Song (*CHA Bundang Medical Center, CHA University, Korea*)

The preliminary results of embryonic stem cell derived retinal pigment epithelial cell trials for macular degeneration

S3-5. Takayuki Asahara (*Tokai University School of Medicine*)

Cell therapy for ischemic diseases

Symposium IV Vector

Date: August 8, 2014, 10:00-11:50, Lecture Room-1
Chairpersons: Yumi Kanegae & Masato Yamamoto

S4-1. Ko Mitani (*Research Center for Genomic Medicine, Saitama Medical School*)
Helper-dependent adenoviral vector

S4-2. Saki Kondo (*The Institute of Medical Science, The University of Tokyo*)
Dually safer adenovirus vector lacking virus-associated RNA genes with significantly low immune responses

S4-3. Masashi Urabe (*Jichi Medical University*)
Transgene insertion into the AAVS1 site, a safe harbor in the human genome by adeno-associated virus integration machinery

S4-4. Makoto Inoue (*DNAVEC Corporation*)
Sendai virus vector for gene- and cell-based therapies

S4-5. Hiroyuki Miyoshi (*RIKEN BioResource Center*)
Lentiviral vectors

Special Seminar (E)

Date: August 8, 2014, 9:30-10:00, Convention Hall
Chairperson: Yoshikatsu Eto

Dale Ando (*Sangamo BioSciences, USA*)
First genome editing clinical trials using Zinc Finger Nucleases: CCR5-Modified CD4 T cells in HIV subjects and IL-13 Zetakine and HyTK Modified Allogeneic CD8 T cells resistant to glucocorticoids in recurrent Glioblastoma subjects on Decadron

Announcement by Ministry of Health, Labor and Welfare

Date: August 7, 2014, 15:00-15:30, Convention Hall
Chairpersons: Ryuichi Morishita & Kenzaburo Tani

Kenji Konomi & Koichi Sato (*Ministry of Health, Labor and Welfare*)
The act on the safety of regenerative medicine and guidelines for gene therapy clinical studies

5th Takara Bio Award Lecture

Date: August 6, 2014, 11:45-12:00, Convention Hall
Chairperson: Yasufumi Kaneda

Yoshiaki Miura (*University of Toyama*)
Infectivity-selective oncolytic adenovirus developed by high-throughput screening of adenovirus-formatted library

Notes

Date: August 6, 2014, 17:50-17:56, Convention Hall

N-1. Yuki Kato (*University of California Los Angeles, USA*)
Adoptive T cell immunotherapy using alloreactive CTL combined with RRV-mediated prodrug activator gene therapy in experimental glioma

Date: August 8, 2014, 11:50-11:56, Lecture Room -1

N-2. Hiroyuki Ido (*Oregon Health and Science University, USA*)
A novel immunoprecipitation (IP)-Seq-based method for anti-AAV capsid antibody epitope mapping

Plenary Session I (E) (Abstracts PS1~PS3)

Date: August 6, 2014, 11:00-11:45, Convention Hall
Chairpersons: Toshiyoshi Fujiwara & Yoshikazu Yonemitsu

PS-1. Tissuegene-C (TG-C), TGF- β 1 transduced chondrocyte, improved clinical scores in patients with osteoarthritis: A phase IIb study

Cho J. J., Kim T. W., Park Y. M., Jeong E. G., Lee K-H., Lee B.

PS-2. rAAV1 and 8-mediated induction of local OPMD histopathology in common marmoset

Okada H., Ishibashi H., Hayashita-Kinoh H., Chiyo T., Masuda C., Nitahara-Kasahara Y., Takeda S., Okada T.

PS-3. Trans-BBB gene therapy for metachromatic leukodystrophy using self-complementary type 9 AAV vector

Miyake N., Miyake K., Yamamoto M., Okada T., Shimada T.

Plenary Session II (E) (Abstracts PS4~PS6)

Date: August 7, 2014, 8:45-9:30, Convention Hall
Chairpersons: Shin-ichi Muramatsu & Mahito Nakanishi

PS-4. Endogenous proliferative mesenchymal stromal cells population is required to preserve muscle function in DMD model mice

Fujita R., Tamai K., Aikawa E., Nimura K., Kikuchi Y., Kaneda Y.

PS-5. A phase I clinical trial of autologous CD4⁺ T cells modified with a retroviral vector expressing the MazF endoribonuclease in patients with HIV-1

Jacobson J. M., Chono H., Metz M., Plesa G., Jadowsky J., Lacey S., Levine B., Yoshioka H., Kidokoro T., Tomura D., Mineno J., Takesako K., June C. H.

PS-6. A universal AAV Barcode-Seq system expressing RNA barcodes from an AAV viral genome

Adachi K., Ido H., Holman W., Nakai H.

Day 1: August 6, 2014

Oral Session I Vector-I (Abstracts OR7~OR15)

Underlined number: Short Talk

16:00-17:15, Lecture Room-1
Chairpersons: Saki Kondo & Masashi Urabe

OR-7. MicroRNA processing factors regulate adenovirus replication

Machitani M., Sakurai F., Wakabayashi K., Tachibana M., Mizuguchi H.

OR-8. Efficient and long-term transgene expression by a novel adenovirus vector exhibiting microRNA-mediated suppression of viral gene expression

Sakurai F., Shimizu K., Tomita K., Nagamoto Y., Tachibana M., Mizuguchi H.

OR-9. The isolation of CD133-targeted adenovirus by screening with a fiber-modified adenovirus library

Sato M., Miura Y., Yamamoto M.

OR-10. Development of a novel adenovirus vector for cancer-specific and stable expression: mini-adenovirus vector (mini-AdV)

Yoshioka T., Maekawa A., Suzuki M., Kondo S., Kanegae Y., Saito I.

OR-11. Liposome-based delivery system of telomerase-specific oncolytic adenoviral plasmid DNA

Aoyama K., Kuroda S., Tazawa H., Kagawa S., Fujiwara T.

OR-12. Production and purification of AAV1 and AAV9 vectors without using ultracentrifugation*Tomono T., Hirai Y., Shimada T., Onodera M., Okada T.***OR-13. Best insertion sites and orientations for the single and double expression units in the adenovirus vector genome***Suzuki M., Kondo S., Saito I., Kanegae Y.***OR-14. Adenovirus vectors lacking virus-associated RNA expression enhance shRNA activity***Maekawa A., Pei Z., Kondo S., Suzuki M., Saito I., Kanegae Y.***OR-15. Alveolar bone regeneration by BMP gene transfer using *in vivo* electroporation***Kawai M., Yamamoto T.***Oral Session II****Genetic Diseases-I (Abstracts OR16~OR18)**Underlined number: Short Talk

16:00-16:36, Lecture Room-2

*Chairpersons: Fumio Endo & Katsuto Tamai***OR-16. Gene therapy for amyotrophic lateral sclerosis with siRNA-SOD1 targeting spiral cord***Terashima T., Ogawa N., Urabe H., Kawai H., Kojima H., Maegawa H.***OR-17. Improvement of hypophosphatasia model mice by muscle specific expression of bone targeted alkaline phosphatase using self-complementary AAV8 vector***Nakamura A., Iijima O., Miyake K., Watanabe A., Hirai Y., Kinoshita H., Noguchi T., Abe S., Okada T., Shimada T.***OR-18. Neonatal transplantation of lentivirally transduced bone marrow cells for the treatment of lethal hypophosphatasia mice***Iijima O., Miyake K., Watanabe A., Nakamura A., Igarashi T., Kanokoda C., Kinoshita H., Noguchi T., Abe S., Okada T., Shimada T.***Genetic Diseases-II (Abstracts OR19~OR24)**

16:36-17:20, Lecture Room-2

*Chairpersons: Takashi Okada & Shin'ichi Takeda***OR-19. Immune tolerance induction of canine X-linked muscular dystrophy with fetal rAAV-microdystrophin transduction***Hayashita-Kinoh H., Okada H., Nitahara-Kasahara Y., Chiyo T., Yugeta N., Okada T., Takeda S.***OR-20. Disease modeling of late-onset Pompe disease-specific iPS cells***Sato Y., Kobayashi H., Higuchi T., Ida H., Eto Y., Ohashi T.***OR-21. Long-term enzyme supplementation into the CSF to treat metachromatic leukodystrophy by intraventricular injection of AAV1 vector***Yamazaki Y., Hironaka K., Miyake N., Hirai Y., Miyake K., Okada T., Shimada T.***OR-22. Gene therapy for Krabbe disease using the system of lentiviral vector and Zinc Finger nuclease***Kobayashi H., Ariga M., Sato Y., Wakabayashi T., Shimada Y., Higuchi T., Iizuka S., Eto Y., Ohashi T.***OR-23. Lentiviral ex vivo gene therapy to the murine model of mucopolysaccharidosis type 2***Wakabayashi T., Kobayashi H., Akiyama K., Higuchi T., Shimada Y., Iizuka S., Eto Y., Ida H., Ohashi T.***OR-24. Effective microdystrophin expression in non-human primate muscle with AAV type 2/8/9 vectors following immune suppression***Ishii A., Okada H., Hayashita-Kinoh H., Shin J-H., Okada T., Takeda S.*

Oral Session III
Vector-II (Abstracts OR25~OR33)

Underlined number: Short Talk

17:15-18:30, Lecture Room-1
Chairpersons: Kei Adachi & Ko Mitani

- OR-25. Novel combination therapy of adenoviral gene transfer of HER2-extracellular domain and trastuzumab based photoimmunotherapy for HER2 negative gastric cancer cells**
Ishida M., Kagawa S., Shimoyama K., Takehara K., Noma K., Tanabe S., Tazawa H., Kobayashi H., Fujiwara T.
- OR-26. Neurotensin receptor-targeted oncolytic adenovirus for pancreatic cancer**
Na Y., Choi J-W., Kasala D., Jung S-J., Kim S. W., Yun C-O.
- OR-27. Multi-modal cancer therapy by systemic administration of the platelet vector incorporating HVJ envelope**
Nishikawa T., Kaneda Y.
- OR-28. A targeting ligand enhances infectivity and cytotoxicity of an oncolytic adenovirus in human pancreatic cancer tissues**
Yamamoto Y., Hiraoka N., Rin Y., Miura K., Narumi K., Tagawa M., Aoki K.
- OR-29. Adenovirus-mediated Decorin expression induces cell death through activation of p53 and mitochondrial apoptosis**
Yoon A-R., Han J., Jeon B-N., Hur M-W., Yun C-O.
- OR-30. Enhanced synergistic antitumor efficacy mediated by a paclitaxel-conjugated polymeric micelle-coated oncolytic Ad**
Lee S. H., Choi J-W., Nam K., Kim S. W., Yun C-O.
- OR-31. Integrin antagonist augments the therapeutic effect of adenovirus-mediated REIC/Dkk-3 gene therapy for malignant glioma**
Shimazu Y., Kurozumi K., Ichikawa T., Fujii K., Onishi M., Ishida J., Oka T., Watanabe M., Nasu Y., Kumon H., Date I.
- OR-32. A novel super gene expression system enhances the anti-glioma effects of adenovirus-mediated REIC/Dkk-3 gene therapy**
Oka T., Kurozumi K., Ichikawa T., Shimazu Y., Fujii K., Ishida J., Sakaguchi M., Watanabe M., Nasu Y., Kumon H., Date I.
- OR-33. Examination of the curative effect through the antitumor immunity of the host by the locally administered oncolytic virus HF10 to the subcutaneous tumor in the liver and peritoneal metastasis mouse models**
Hotta Y., Kasuya H., Tan G., Wu Z., Fukuda S., Kuwahara T., Kodera Y.

Oral Session IV
Basic Science (Abstracts OR34~OR42)

Underlined number: Short Talk

17:20-18:25, Lecture Room-2
Chairpersons: Toshinao Kawai & Koichi Miyake

- OR-34. MR images found improvement in cartilage following treatment of TGF- β 1 transduced chondrocyte, tissueengine-C (TG-C)**
Totterman S. M., Gale D. R., Schreyer A. B., Cho J. J., Kim T. W., Park Y. M., Jeong E. G.
- OR-35. Sequential process of gene silencing for the transgene expression was primed in the sequence-specific binding of ZFP809 to the primer-binding site**
Ichida Y., Utsunomiya Y., Sato T., Onodera M.
- OR-36. Tyrosine-mutated AAV2 mediated BDNF rescued inner retina in rat retinal ischemic injury model**
Igarashi T., Miyake K., Kobayashi M., Takahashi K., Miyake N., Iijima O., Nakamoto K., Hirai Y., Shimada T., Okada T., Takahashi H.

OR-37. Host cell proteins “X” and “Y” greatly augment the efficacy of recombinant lentiviral production*Nakagawa R., Fujita T., Yanagisawa T., Sato T.***OR-38. Gene therapy for neuropathic pain by GAD67 expression with helper dependent adenoviral vector in DRG***Ogawa N., Kawai H., Terashima T., Urabe H., Oka K., Chan L., Kojima H., Maegawa H.***OR-39. A transcriptional repressor, ZFP809, inhibits transgene expression driven by the cytomegalovirus promoter without DNA methylation***Utsunomiya Y., Ichida Y., Yamamoto Y., Onodera M.***OR-40. Quality control for the supernatants of retroviral vectors using a next-generation DNA sequencer***Igarashi Y., Uchida E., Sato Y., Onodera M.***OR-41. A revised view of roles for CXCR4 signaling in hematopoietic stem cells for improvement in transplantation medicine***Lai C-Y., Yamazaki S., Okabe M., Suzuki S., Maeyama Y., Iimura Y., Onodera M., Kakuta S., Iwakura Y., Nojima M., Otsu M., Nakauchi H.***OR-42. Study on the biosafety of ex vivo transduced cells with retroviral vectors and Cartagena Protocol Domestic Law***Uchida E., Igarashi Y., Sato Y., Onodera M., Yamaguchi T.***Day 2: August 7, 2014****Oral Session V
Cancer-I (Abstracts OR43~OR50)**Underlined number: Short Talk

9:30-10:40, Lecture Room-1

Chairpersons: Masaaki Mizuno & Toshiaki Tahara

OR-43. Virus-mediated delivery system of photosensitive cytotoxic fluorescent protein KillerRed in novel photodynamic therapy for human cancers*Takehara K., Tazawa H., Hashimoto Y., Kishimoto H., Narii N., Mizuguchi H., Fujiwara T.***OR-44. The elucidation of molecular mechanism of HVJ-E-induced necroptosis in human neuroblastoma cells***Nomura M., Kaneda Y.***OR-45. Arming oncolytic HSV-1 (G47Δ) with anti-VEGF factors confers additional therapeutic benefits***Kiyama T., Ino Y., Fukuhara H., Nakatsubo T., Iwai M., Todo T.***OR-46. Therapeutic efficacy of retroviral replicating vectors in breast cancer metastasis to the brain***Inagaki A., Hiraoka K., Kamijima S., Robbins J. M., Jolly D. J., Gruber H. E., Kasahara N.***OR-47. Combination therapy of oncolytic Herpes Simplex Virus HF10 and Bevacizumab against experimental model of human breast carcinoma***Tan G., Kasuya H., Sahin T. T., Yamamura K., Shikano T., Yamada S., Kanzaki A., Fujii T., Sugimoto H., Nomoto S., Nishikawa Y., Tanaka M., Tsurumaru N., Takeda S., Nakao A., Kodera Y.***OR-48. A promising therapy against human gastric cancer xenograft with the combination of Bevacizumab and oncolytic virus hrR3***Wu Z., Tan G., Kasuya H., Sahin T. T., Shikano T., Yamada S., Kanzaki A., Yamamura K., Fujii T., Sugimoto H., Nomoto S., Nishikawa Y., Hotta Y., Koide U., Fukuda S., Tsurumaru N., Kuwahara T., Takeda S., Nakao A., Kodera Y.*

OR-49. Translational study using herpes oncolytic virus HF10 with Erlotinib and Gemcitabine

Kasuya H., Yamamura K., Hotta Y., Tan G., Wu Z., Fukuda S., Kuwahara T., Hirooka Y., Goto H., Koide U., Tanaka M., Kodera Y.

OR-50. Anti-tumor activity of oncolytic herpes simplex virus HF10 in combination with the epidermal growth factor receptor tyrosine kinase inhibitor Erlotinib in human pancreatic cancers

Koide Y., Yamamura K., Kasuya H., Wu Z., Tan G., Hotta Y., Kanda M., Fukuda S., Kuwahara T., Yamada S., Nakayama G., Fujii T., Koike M., Nomoto S., Fujiwara M., Tanaka M., Fujimoto Y., Kodera Y.

Oral Session VI
Vector-III (Abstracts OR51~OR59)

Underlined number: Short Talk

9:30-10:45, Lecture Room-2

Chairpersons: Hiroyuki Miyoshi & Hiroyuki Mizuguchi

OR-51. Transcriptional targeting of retroviral replicating vectors for prostate cancer

Kamijima S., Kimura T., Haga K., Hiraoka K., Inagaki A., Tam Q., Hermann K. J., Collins S. A., Hacke K., Kamiya N., Logg C. R., Kao C., Bochner B. H., Ichikawa T., Kasahara N., Suzuki H.

OR-52. Development of a new generation of herpes simplex virus vectors fully retargeted to a variety of tumor-associated antigens

Uchida H., Okubo Y., Shibata T., Suzuki T., Ikeda H., Shiroyama T., Fukuhara T., Kojima M., Yamaguchi M., Miyagawa Y., Cohen J. B., Glorioso J. C., Hamada H.

OR-53. Development of novel immune-stimulatory pseudovirion for cancer immune therapy

Saga K., Tamai K., Yamazaki T., Kaneda Y.

OR-54. Expression of the adeno-associated virus Rep proteins decreases assembly-activating protein levels

Earley L. F., Nakai H.

OR-55. Hydrodynamics-based gene delivery to the fibrotic liver

Kamimura K., Abe H., Yokoo T., Ohtsuka M., Miura H., Kanefuji T., Suda T., Liu D., Aoyagi Y.

OR-56. Hemodynamics of hydrodynamic injection in mice

Yokoo T., Kanefuji T., Suda T., Abe H., Kamimura K., Liu D.

OR-57. Suppression of leaky expression of Ad genes leads to the reduction in the adenovirus vector-mediated hepatotoxicity at the not only late phase but also early phase

Shimizu K., Sakurai F., Nakamura S., Tachibana M., Mizuguchi H.

OR-58. Activity levels of cathepsins B and L in tumor cells are a biomarker for efficacy of reovirus-mediated tumor cell lysis

Sakurai F., Terasawa Y., Tachibana M., Mizuguchi H.

OR-59. Good manufacturing practice (GMP) compatible method for adeno-associated virus type2 vector production and purification

Sakamoto S., Nishie T., Takakura H., Enoki T., Mineno J., Okada T., Yamagata T., Mizukami H., Ozawa K., Muramatsu S.

Oral Session VII
Cancer-II (Abstracts OR60~OR68)

Underlined number: Short Talk

15:30-16:45, Lecture Room-1

Chairpersons: Kazunori Aoki & Yasutomo Nasu

OR-60. Systemic treatment with fiber-redesigned oncolytic adenovirus eliminates tumors in pancreatic cancer model

Miura Y., Sato M., Yamamoto M.

OR-61. A case report showing promising results with Ad-REIC, leading the future to a new cancer vaccine

Ariyoshi Y., Hirata T., Watanabe M., Tanimoto R., Sasaki K., Kaku H., Ebara S., Watanabe T., Yanai H., Hiraki T., Kanazawa S., Nasu Y., Kumon H.

OR-62. Prodrug activator gene therapy using replicating gibbon ape leukemia virus in an experimental model of human malignant mesothelioma

Kubo S., Takagi-Kimura M., Logg C.R., Kasahara N.

OR-63. Intratumoral inoculation with oncolytic HSV-1 G47 Δ suppresses lymph node metastases in orthotopic tongue cancer models

Uchihashi T., Nakahara H., Ino Y., Fukuhara H., Iwai M., Kogo M., Todo T.

OR-64. Oncolytic adenovirus as a potential tool for pancreatic cancer combination therapy

Oliveira A., LaRocca C., Han J., Shanley R., Davydova J., Yamamoto M.

OR-65. Coxsackievirus B3 displays remarkable oncolytic activity against both malignant pleural mesothelioma and triple-negative breast cancer cells

Sagara M., Inoue H., Miyamoto S., Kai M., Takishima Y., Kobayashi K., Takayama K., Shimizu H., Nakanishi Y., Tani K.

OR-66. Oncolytic virotherapy for oxaliplatin-resistant colorectal cancer cells using coxsackievirus A11

Wang B., Inoue H., Miyamoto S., Nakano Y., Sakamoto C., Narusawa M., Takayama K., Shimizu H., Nakanishi Y., Tani K.

OR-67. Coxsackievirus A11 displays remarkable oncolytic activity against human non-small cell lung cancer cells

Inoue H., Nakano Y., Wang B., Miyamoto S., Narusawa M., Sakamoto C., Takayama K., Shimizu H., Nakanishi Y., Tani K.

OR-68. Molecular and cellular mechanism of tumor dissemination in the peritoneal cavity

Harada Y., Morodomi Y., Kasagi Y., Yonemitsu Y.

Day 3: August 8, 2014

**Oral Session VIII
Cancer-III (Abstracts OR69~OR77)**

Underlined number: Short Talk

9:00-10:10, Lecture Room-2

Chairpersons: Yasushi Ino & Takashi Nakamura

OR-69. Combination effect of telomerase-specific oncolytic adenovirus and zoledronic acid in human osteosarcoma cells

Yamakawa Y., Hasei J., Tazawa H., Osaki S., Oomori T., Kunisada T., Yoshida A., Kagawa S., Urata Y., Ozaki T., Fujiwara T.

OR-70. Therapeutic vaccination with irradiated GM-CSF gene transduced cancer stem cells induces potent antitumor immunity in mice

Sakamoto C., Inoue H., Narusawa M., Matsumura Y., Miyamoto S., Inoue M., Takayama K., Hasegawa M., Nakanishi Y., Tani K.

OR-71. Deletions of both vaccinia growth factor and O1 protein genes enhance therapeutic index of oncolytic vaccinia virus

Nitta N., Goto I., Nakatake M., Yamane M., Horita K., Kurosaki H., Nakamura T.

OR-72. Conditionally replicative oncolytic adenoviruses as a novel treatment for HPV-positive head and neck squamous cell carcinomas

LaRocca C. J., Emery A., Han J., Oliveira A. R., Davydova J., Herzberg M., Gopalakrishnan R., Yamamoto M.

OR-73. Therapeutic efficacy of oncolytic HSV-1 for nonseminoma germ cell tumors*Kakutani S., Fukuhara H., Taguchi S., Takeshima Y., Homma Y., Ino Y., Todo T.***OR-74. A new therapeutic approach for esophageal cancer using G47 Δ , a third generation oncolytic HSV-1***Yajima S., Ino Y., Fukuhara H., Iwai M., Seto Y., Todo T.***OR-75. Generation of a oncolytic herpes simplex virus expressing an antibody as a therapeutic molecule***Ito H., Iwai M., Ino Y., Todo T.***OR-76. Oncolytic virus therapy for malignant melanoma using interleukin 12-expressing herpes simplex virus type 1***Higuchi A., Ino Y., Fukuhara H., Iwai M., Todo T.***OR-77. Oncolytic virus therapy for colorectal cancer using genetically engineered herpes simplex virus type 1 (G47 Δ)***Abe S., Ino Y., Fukuhara H., Iwai M., Watanabe T., Todo T.***Oral Session IX****Underlined number: Short Talk****Infectious Diseases/Methodology (Abstracts OR78~OR85)**

10:10-11:20, Lecture Room-2

*Chairpersons: Hiroaki Mizukami & Fuminori Sakurai***OR-78. Virus-guided fluorescence imaging of intraperitoneal gastric cancer cells as an alternative to cytology***Watanabe M., Kagawa S., Ishida M., Hori N., Kikuchi S., Kuroda S., Kishimoto H., Nishizaki M., Tazawa H., Urata Y., Fujiwara T.***OR-79. Development of combination therapy of *Bifidobacterium* displaying HCV-NS3 oral vaccine with interferon-alpha***Kitagawa K., Omoto C., Ishikawa H., Oda T., Morishita N., Hotta H., Shirakawa T.***OR-80. Overcoming resistance to anti-VEGF therapies in glioblastoma: Targeting tumor-derived endothelial cells by HIF-1 inhibition***Soda Y., Myskiw C., Rommel A., Friedmann-Morvinski D., Marumoto T., Soda M., Kesari S., Verma I. M.***OR-81. Robust treatment for cervical cancer using short-hairpin RNA against human papillomavirus type 16 E6/E7***Saga Y., Sato N., Mizukami H., Uchibori R., Tsukahara T., Urabe M., Kume A., Suzuki M., Ozawa K.***OR-82. Rejuvenation of *Helicobacter pylori*-induced, salt diet-promoted chronic atrophic gastritis with MSC relevant to gastric microbiota changes***Hahm K. B., Han Y. M., Lee S. Y., Park J. M., Choi Y. S., Kim E. H., Chung M. K., Kim W. H.***OR-83. Examination on large scale production of AAV vectors for clinical use***Nishie T., Enoki T., Kitagawa M., Mineno J., Okada T., Ohmori T., Mizukami H., Ozawa K., Sakata Y.***OR-84. Mass-production of human dendritic cells in accordance with GMP for clinical studies***Yasuda N., Harada Y., Yonemitsu Y.***OR-85. Suicide gene therapy for glioma using induced pluripotent stem cell-derived neural stem cells generated without viral vector***Yamasaki T., Kawaji H., Namba H.*

Oral Session X
Cell Therapy (Abstracts OR86~OR93)

Underlined number: Short Talk

13:00-14:10, Lecture Room-1
Chairpersons: Ken-ichiro Kosai & Akihiro Kume

- OR-86. Oncolytic Herpes Simplex Virus Type 1 mutant HF10 in combination with anti-CTLA-4 antibody enhanced systemic anti-tumor effect**
Tsuda H., Huang S., Kohno S., Furui S., Fukuyo Y., Inoue K., Ishihara M., Muraoka D., Shiku H., Mineno J.
- OR-87. High-quality TCR-gene modified T cells using siTCR lentiviral vector in combination with anti-CD3/CH296 stimulation**
Okamoto S., Isoe K., Ikeda H., Fujiwara H., Yasukawa M., Shiku H., Mineno J.
- OR-88. The NFAT response elements in the IL-2 gene promoter permit visualization and quantification of activation status in CAR-expressing PBMCs**
Uchibori R., Ninomiya S., Teruya T., Ido H., Tsukahara T., Ohmine K., Urabe M., Mizukami H., Kume A., Riviere I., Sadelain M., Brentjens R. J., Mineno J., Ozawa K.
- OR-89. Efficacy and safety of T cells with CEA-specific chimeric antigen receptor for cancer immunotherapy**
Wang L., Kato T., Seo N., Okamoto S., Amaishi Y., Mineno J., Takesako K., Shiku H.
- OR-90. Development of chimeric antigen receptor immunotherapy targeting intracellular WT1 gene product**
Akahori Y., Yoneyama M., Ikeda H., Orito Y., Miyahara Y., Amaishi Y., Okamoto S., Mineno J., Takesako K., Shiku H.
- OR-91. Tol2 transposon-mediated gene transfer of CD19-CAR to primary human T-cells for the treatment of B-cell malignancies**
Tsukahara T., Iwase N., Yamamoto C., Ohmine K., Uchibori R., Teruya T., Urabe M., Mizukami H., Kume A., Nakamura M., Brentjens R., Kawakami K., Ozawa K.
- OR-92. TCR gene therapy with allogeneic T cells**
Ikeda H., Uneno H., Kawamura A., Yamane M., Imai N., Okamoto S., Mineno J., Takesako K., Shiku H.
- OR-93. Stem cell therapy: Stem cells, therapeutic effects, and genomics**
Moon J.

Oral Session XI
Regenerative Medicine (Abstracts OR94~OR101)

Underlined number: Short Talk

13:00-14:10, Lecture Room-2
Chairpersons: Shin Kaneko & Junichi Mineno

- OR-94. Potent *in vivo* bystander effect of the suicide gene therapy to glioblastoma using muse cells transduced with herpes simplex virus-thymidine kinase gene and ganciclovir**
Namba H., Yamasaki T., Yamazoe T., Kawaji H., Wakao S., Dezawa M.
- OR-95. Engraftment of mesenchymal stromal cells is effectively associated by IL-10 in skeletal muscle**
Nitahara-Kasahara Y., Hayashita-Kinoh H., Tsumita N., Chiyo T., Okada H., Takeda S., Okada T.
- OR-96. Engineered integration-free iPS cells using artificial chromosome vectors for hemophilia A therapy**
Kurosaki H., Ueda K., Suzuki T., Yakura Y., Fukuhara S., Hiratsuka M., Takehara S., Yoshino T., Kazuki Y., Nakamura T., Oshimura M.
- OR-97. Ectopic gp91phox expression is detrimental to patient autologous XCGD iPS cell-derived neutrophils**
Lin H-T., Otsu M., Nakauchi H.
- OR-98. Elucidation of pathophysiology of microthrombocytopenia in Wiskott Aldrich Syndrome using iPS cells**
Amirhosseini M. K., Morio T., Imai K., Nakauchi H., Otsu M.

OR-99. LYL1 is an efficient factor to induce hematopoietic stem/progenitor cells from common marmoset embryonic stem cells

Kawano H., Marumoto T., Yamaguchi S., Hiramoto T., Okada M., Nii T., Liao J., Tani K.

OR-100. Stem cell protection in inflammatory marrow environment

Ishida T., Otsu M., Suzuki S., Higashihara M., Nakauchi H.

OR-101. Reprogramming of invariant natural killer T (iNKT) cells to induced pluripotent stem cells and their development into functional iNKT cells in vitro

Watarai H.