

THE 19th ANNUAL MEETING

JSGT2013

JAPAN SOCIETY OF GENE THERAPY

Program & Abstracts

Date

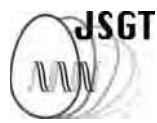
July 4-6, 2013

Venue

OKAYAMA CONVENTION CENTER

14-1, Ekimotomachi, Kita-ku, Okayama, 700-0024, Japan

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



PROGRAM

Presidential Lecture

Date: July 5, 2013, 13:00-13:45, Hall A
 Chairperson: Yasufumi Kaneda

Toshiyoshi Fujiwara (*Okayama University Graduate School of Medicine*)
Cancer Gene Therapy: Two Decades and Future

Board Chairman's Lecture

Date: July 4, 2013, 13:30-14:15, Hall A
 Chairperson: Shigetaka Asano

Yasufumi Kaneda (*Osaka University Graduate School of Medicine*)
What will be needed in gene therapy in Japan?

Special Lecture I (E)

Date: July 4, 2013, 14:15-15:00, Hall A
 Chairperson: Keiya Ozawa

David W. Russell (*University of Washington, USA*)
Genetic engineering of human pluripotent stem cells

Special Lecture II (E)

Date: July 4, 2013, 15:00-15:45, Hall A
 Chairperson: Jun Yoshida

Denise K. Gavin (*US Food and Drug Administration, USA*)
Gene therapy – Past and present

Special Lecture III (E)

Date: July 5, 2013, 13:45-14:30, Hall A
 Chairperson: Hiromi Kumon

John J. Nemunaitis (*Mary Crowley Cancer Research Centers, USA*)
Gene based vaccines: Insights from ongoing trials

Special Lecture IV (E)

Date: July 5, 2013, 14:30-15:15, Hall A
 Chairperson: Kohnosuke Mitani

Dmitry M. Shayakhmetov (*University of Washington School of Medicine, USA*)
Functional role of blood coagulation factor binding to adenovirus vectors

Educational Lecture I

Date: July 5, 2013, 11:00-11:40, Hall A
 Chairperson: Toshiyoshi Fujiwara

Yoshiki Sawa (*Osaka University Graduate School of Medicine*)
A promising regenerative therapy for severely damaged myocardium using cell sheet technology
 ~Up to date and perspective of stem cell therapy ~

Educational Lecture II

Date: July 6, 2013, 10:30-11:10, Hall A
 Chairperson: Yasutomo Nasu

Koji Kawakami (*Kyoto University*)
Clinical research environment and clinical/pharmacoepidemiology

Educational Lecture III

Date: July 6, 2013, 11:10-11:50, Hall A
Chairperson: Takashi Shimada

Sakura Tanaka (*Ministry of Health, Labor and Welfare*)

The national strategy to overcome rare and intractable disease

~Approach from medical research to clinical application~

Main Symposium (E)

Regulation of the Gene Therapy Products in the US and Japan

Date: July 5, 2013, 15:30-18:00, Hall A
Chairpersons: Teruhide Yamaguchi & Koji Kawakami

MS-1. Denise K. Gavin (*US Food and Drug Administration, USA*)
FDA regulatory approach to gene therapy clinical trials

MS-2. Robert E Sobol (*P53 Inc and VirRx Inc, USA*)
Clinical development of tumor suppressor and oncolytic adenoviral cancer therapies

MS-3. Haruko Yamamoto (*National Cerebral & Cardiovascular Center*)
Needs for harmonization among regulatory systems and other obstacles: a case study in medical devices

MS-4. Teruyo Arato (*Hokkaido University School of Medicine*)
Current situation of the regulation of the gene therapy products in Japan

MS-5. Ryuichi Morishita (*Department of Clinical Gene Therapy, Osaka University*)
Change in regulatory process of regenerative medicine & gene therapy in Japan

Symposium I (E)

Gene and Vector-based Molecular Imaging

Date: July 4, 2013, 16:00-18:30, Hall A
Chairpersons: Robert M. Hoffman & Masato Yamamoto

S1-1. Robert M. Hoffman (*AntiCancer Inc., University of California, San Diego, USA*)
Glowing tumors make for better detection and resection

S1-2. Lily Wu (*University of California, Los Angeles, USA*)
Reporter gene imaging directed by transcription-targeted vectors to detect cancer metastasis

S1-3. Shinae Kondoh (*Tokyo Institute of Technology*)
Imaging of hypoxia-inducible factor activity in cancer models

S1-4. Takahiro Ochiya (*National Cancer Center Research Institute*)
Functional imaging of cancer-specific exosomes in tumor metastasis

S1-5. Masato Yamamoto (*University of Minnesota*)
Novel theranostic for imaging and treatment of pancreatic cancer

Symposium II (E)**Genetic Diseases**

Date: July 5, 2013, 8:30-11:00, Hall A

Chairpersons: Akihiro Kume & Masafumi Onodera

- S2-1. **Toshinao Kawai** (*National Center for Child Health and Development*)
Gene therapy for chronic granulomatous disease
- S2-2. **Hirokazu Hirai** (*Gunma University Graduate School of Medicine*)
**Progress of spinocerebellar ataxia research on pathology, model animals and gene/stem cell therapies:
Toward clinical application**
- S2-3. **Yasuhiro Ikeda** (*Graduate School of Medical Sciences, Kyushu University*)
**Phase I, clinical study of a third-generation simian immunodeficiency virus (SIV)-based lentiviral
vector carrying human PEDF gene for patients with retinitis pigmentosa**
- S2-4. **Hiroaki Mizukami** (*Jichi Medical University*)
Hemophilia gene therapy – Recent progress and current perspectives
- S2-5. **Torayuki Okuyama** (*National Center for Child Health and Development*)
Gene therapy for inherited metabolic diseases

Symposium III (E)**Asian Cancer Symposium**

Date: July 6, 2013, 8:30-10:30, Hall A

Chairpersons: Masatoshi Tagawa & Yoshikazu Yonemitsu

- S3-1. **Wei-Wei Zhang** (*Acrotics Corporation, USA*)
Adenoviral-vector-mediated cancer gene therapy: Technologies and clinical applications
- S3-2. **Chae-Ok Yun** (*Hanyang University, Korea*)
Reprogrammed viruses as cancer gene therapeutics: targeted, armed, and shielded.
- S3-3. **Liang Min** (*TOTBIOPHARM Company Ltd, China*)
Gene therapy progress in China
- S3-4. **Li Yang** (*Sichuan University, China*)
Progress in gene and cell therapy in China

Symposium IV (E)**Regenerative Medicine**

Date: July 6, 2013, 13:00-15:00, Hall A

Chairpersons: Mahito Nakanishi & Makoto Otsu

- S4-1. **Koji Eto** (*Center for iPS Cell Research and Application (CiRA), Kyoto University*)
Two modes of platelet biogenesis in mice detectable by two-photon imaging system
- S4-2. **Masayo Takahashi** (*Center for Developmental Biology, RIKEN*)
Application of iPS cells for retinal diseases
- S4-3. **Wado Akamatsu** (*Keio University School of Medicine*)
iPS technology-based regenerative medicine for damaged central nervous system
- S4-4. **Katsuto Tamai** (*Stem Cell Science, Graduate School of Medicine, Osaka University*)
Regenerative medicine for epidermolysis bullosa: from discovery to recovery

Symposium V (E)

Cancer Therapy

Date: July 6, 2013, 15:00-17:00, Hall A

Chairpersons: Hideaki Tahara & Toshihiko Wakabayashi

S5-1. Tomoki Todo (*The Institute of Medical Science, The University of Tokyo*)

Clinical development of a third-generation oncolytic HSV-1 (G47 Δ) for brain tumors and rare cancers

S5-2. Hideki Kasuya (*Nagoya University Graduate School of Medicine*)

Combination therapy of HF10 with Erlotinib and Gemcitabine as preclinical data for next clinical trial

S5-3. Masatoshi Tagawa (*Chiba Cancer Center Research Institute*)

Updated gene therapy for malignant mesothelioma: challenges for the intractable cancer

S5-4. Katsuyuki Hamada (*School of Medicine, Ehime University*)

Cancer gene therapy with oncolytic adenovirus by cell and polymer processing

4th Takara Bio Award Lecture

Date: July 4, 2013, 11:30-11:45, Hall A

Chairperson: Yasufumi Kaneda

Kenya Kamimura (*Graduate School of Medical and Dental Sciences, Niigata University*)

“Novel electric power-driven hydrodynamic injection system for gene delivery: safety and efficacy of human factor ix delivery in rats.”

Plenary Session (E) (Abstracts PS1~PS6)

Date: July 4, 2013, 10:00-11:30, Hall A
Chairpersons: Noriyuki Kasahara & Kenzabro Tani

PS-1. A phase IIb clinical study of tissue gene-C (TG-C) in patients with osteoarthritis

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

PS-2. Vaccination with irradiated induced pluripotent stem cells genetically engineered to secrete GM-CSF provides substantial antitumor immunity in immunocompetent syngeneic mouse models

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

PS-3. Ex vivo generation of highly purified and activated NK cells from human peripheral blood

Saito S., Harada Y., Yonemitsu Y.

PS-4. Systemic cancer virotherapy with MDVV, a combined miRNA-regulated and thymidine kinase-deleted oncolytic vaccinia virus

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

PS-5. Syncytial mutations augment the oncolytic potential of a fully retargeted herpes simplex virus vector

Wakata A., Okubo Y., Fukuhara T., Cohen J. B., Glorioso J. C., Nakano K., Kumagai I., Kuroki M., Hamada H., Uchida H.

PS-6. Generation of muscular dystrophy NHP model with rAAV 1 and 9-mediated transduction of common marmoset

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

Day 1: July 4, 2013

Oral Session 1 (Abstracts OR7~OR12) Genetic Diseases I

16:00-17:00, Hall B
Chairpersons: Fumio Endo & Torayuki Okuyama

OR-7. Elucidation of pathophysiological mechanisms in Wiskott Aldrich Syndrome using induced pluripotent stem cells (iPSC)

Amirhosseini M. K., Otsu M., Nakauchi H.

OR-8. Anti-inflammatory therapeutic approach using multipotent mesenchymal stromal cells for the treatment of duchenne muscular dystrophy

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

OR-9. Immune tolerance induction by transplacental transmission of rAAV-microdystrophin in canine X-linked muscular dystrophy

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

OR-10. Dry run of ex vivo transduction and expansion of human hematopoietic stem/progenitor cells toward stem cell gene therapy for chronic granulomatous disease

Yamamoto M., Kawai T., Onodera M.

OR-11. Enzyme replacement therapy enhanced a therapeutic efficacy of bone marrow transplantation in MPS II mouse.

Akiyama K., Shimada Y., Higuchi T., Iizuka S., Fukuda T., Ohtsu M., Nakauchi H., Brown J. R., Crawford B. E., Kobayashi H., Ida H., Eto Y., Ohashi T.

OR-12. Defining the threshold of rAAV-mediated gene transfer required to protect against hyperammonaemia in mouse models of urea cycle defects

Kok C., Cunningham S., Alexander I.

Oral Session 2 (Abstracts OR13~OR18)
Other Diseases

17:00-18:00, Hall B

Chairpersons: Makoto Inoue & Shin-ichi Muramatsu

- OR-13. Oral administration of genetically modified bifidobacterium displaying HCV-NS3 multi-epitope fusion protein can induce the HCV-NS3 specific systemic immune response in mice**
Omoto C., Kitagawa K., Takei S., Morishita N., Katayama T., Hotta H., Kawabata M., Shirakawa T.
- OR-14. Nonhuman primate model for HIV-1 gene therapy using endoribonuclease MazF transduced CD4+ T cells in the presence of SHIV 89.6P infection**
Saito N., Chono H., Shibata H., Ageyama N., Yasutomi Y., Mieno J.
- OR-15. Endogenous mesenchymal stem cells accelerate engraftment and regeneration of the skin graft**
Aikawa E., Fujita R., Inuma S., Kikuchi Y., Saga K., Uchida Y., Kaneda Y., Tamai K.
- OR-16. Widespread neuronal transduction in the primate brain via intrathecal administration of adeno-associated virus vectors**
Iida A., Takino N., Miyauchi H., Shibata H., Ono F., Muramatsu S.
- OR-17. siRNA targeting vascular endothelial growth factor by adeno-associated vector (type 8) efficiently inhibits neovascularization in a murine choroidal neovascularization model**
Igarashi T., Miyake N., Iijima O., Fujimoto C., Shimada T., Takahashi H., Miyake K.
- OR-18. rAAV8/9-mediated muscle transduction with tacrolimus in non-human primates**
Ishii A., Okada H., Hayashita-Kinoh H., Shin J-H., Okada T., Takeda S.

Day 2: July 5, 2013

Oral Session 3 (Abstracts OR19~OR23)
Cancer I

8:30-9:20, Hall B

Chairpersons: Akinobu Gotoh & Katsuyuki Hamada

- OR-19. A phase I/IIa study of REIC/Dkk-3 (reduced expression in immortalized cells) gene therapy for prostate cancer; Challenges in establishing REIC/Dkk-3 as a cancer vaccine.**
Sasaki K., Watanabe M., Hirata T., Ariyoshi Y., Tanimoto R., Kaku H., Ebara S., Watanabe T., Nasu Y., Kumon H.
- OR-20. Identification of mesenteric hematopoiesis where is the metastatic niche of tumor dissemination**
Harada Y., Morodomi Y., Kasagi Y., Saito S., Yoshida K., Maeda N., Yonemitsu Y.
- OR-21. Novel immuno-virotherapy: Tumor-specific killer activity of oncolytic adenovirus-loaded T cell line HOZOT**
Onishi T., Tazawa H., Takeuchi M., Otani T., Nakamura S., Yamasaki F., Sakurai F., Mizuguchi H., Hashimoto Y., Kikuchi S., Urata Y., Kagawa S., Fujiwara T.
- OR-22. Radiosensitization of glioma cells after intracellular generation of 5-fluorouracil by prodrug activator gene therapy with a non-lytic retroviral replicating vector**
Takahashi M., Valdes G., Inagaki A., Kamijima S., Hiraoka K., Micewicz E., Robbins J. M., Jolly D. J., McBride W. H., Iwamoto K. S., Kasahara N.
- OR-23. The integrin antagonist cilengitide increases anti-tumor effects of vasculostatin-expressing oncolytic virus**
Ishida J., Fujii K., Kurozumi K., Ichikawa T., Onishi M., Shimazu Y., Chiocca E. A., Kaur B., Date I.

**Oral Session 4 (Abstracts OR24~OR28)
Cancer II**

9:20-10:10, Hall B

Chairpersons: Kazunori Aoki & Masaaki Mizuno

- OR-24. Gene therapy using retroviral replicating vectors in CNS metastasis of breast cancer**
Inagaki A., Hickey M. J., Hiraoka K., Kamijima S., Robbins J. M., Jolly D. J., Gruber H. E., Kruse C. A., Kasahara N.
- OR-25. A novel chimeric antigen receptor targeting GM-CSF receptor for the treatment of juvenile myelomonocytic leukemia**
Nakazawa Y., Sueki A., Matsuda K., Sakashita K., Koike K.
- OR-26. Cyclophosphamide enhances antitumor efficacy of oncolytic adenovirus expressing uracil phosphoribosyltransferase (UPRT) in immunocompetent syrian hamsters.**
Hasegawa N., Abei M., Fukuda K., Seo E., Kawashima R., Yamada T., Yokoyama K. K., Obata Y., Hamada H., Hyodo I.
- OR-27. Infection with dual microRNA-targeted coxsackievirus B3 abrogates ITS pathogenicity retaining oncolytic activity**
Miyamoto S., Inoue H., Sagara M., Wang B., Takayama K., Shimizu H., Nakanishi Y., Tani K.
- OR-28. Usefulness of microRNA-375 as a prognostic and therapeutic tool in esophageal squamous cell carcinoma**
Isozaki Y., Hoshino I., Akutsu Y., Hanari N., Mori M., Nishimori T., Akanuma N., Takeshita N., Maruyama T., Matsubara H.

**Oral Session 5 (Abstracts OR29~OR33)
Cancer III**

10:10-11:00, Hall B

Chairpersons: Ken-ichiro Kosai & Tomoki Todo

- OR-29. Adenovirus-mediated REIC/Dkk-3 gene therapy induces tumor antigen-specific cytotoxic T-cell activation in mouse cancer models**
Ariyoshi Y., Hirata T., Watanabe M., Tanimoto R., Sasaki K., Kaku H., Ebara S., Watanabe T., Nasu Y., Kumon H.
- OR-30. Potent *in vitro* bystander effect and migratory activity in the suicide gene therapy using Muse cells transduced with herpes simplex virus-thymidine kinase gene and ganciclovir**
Namba H., Yamazoe T., Yamasaki T., Koizumi S., Amano S., Wakao S., Tsuchiyama K., Dezawa M.
- OR-31. Bisphosphonates and Nutlin-3a augments cytotoxicity induced by adenovirally expressed p53 in p53 wild-type mesothelioma**
Tagawa M., Kawamura K., Jiang Y., Chai K., Yang S., Yamaguchi N., Shingyoji M., Tada Y., Sekine I., Takiguchi Y., Kubo S., Tatsumi K., Shimada H., Hiroshima K.
- OR-32. Induction of an angiogenic factor, Cyr61, in oncolytic viral therapy for malignant gliomas.**
Kurozumi K., Ichikawa T., Fujii K., Shimazu Y., Onishi M., Ishida J., Chiocca E. A., Kaur B., Date I.
- OR-33. A clinical development of a third-generation oncolytic HSV-1 G47 Δ for patients with castration resistant prostate cancer**
Fukuhara H., Homma Y., Ino Y., Todo T.

Day 3: July 6, 2013

Oral Session 6 (Abstracts OR34~OR39)

Basic Science I

8:30-9:30, Hall B

Chairpersons: Toya Ohashi & Hironori Nakagami

- OR-34. CD106+/CD44+ mesenchymal stromal cells in bone marrow are recruited to preserve muscle function through the inhibition of severe fibrosis in mdx mice.**
Fujita R., Tamai K., Aikawa E., Kikuchi Y., Kaneda Y.
- OR-35. Tbx18 and Wt1 control the epicardial epithelial-mesenchymal transition through bi-directional regulation of Slug**
Nakagami H., Takeichi M., Nimura K., Kaneda Y.
- OR-36. The effect of ZFP809 on gene silencing depends on primer-binding site located downstream MoMLV type retroviral vectors**
Ichida Y., Sato T., Onodera M.
- OR-37. The mechanism of a transcriptional repressor, ZFP809, for induction of gene silencing in the transduced cells**
Utsunomiya Y., Ichida Y., Yamamoto Y., Onodera M.
- OR-38. Generation of transgenic mice with human AAVS1 sequence**
Urabe M., Miyata S., Tominaga T., Tsukahara T., Mizukami H., Kume A., Ozawa K.
- OR-39. Development of the oral universal type A influenza vaccine using *Bifidobacterium* displaying influenza-M2e protein**
Ozaki S., Kitagawa K., Shirotsuki C., Morishita N., Katayama T., Kawabata M., Shirakawa T.

Oral Session 7 (Abstracts OR40~OR45)

Basic Science II

9:30-10:30, Hall B

Chairpersons: Koichi Miyake & Atsushi Natsume

- OR-40. Novel DNA vaccine platform : Tumor-associated antigen/adjuvant genes-loading polyplex micelle for cancer therapy**
Nakano K.
- OR-41. The p53-specific CTL induced by Ad-p53 infected dendritic cells showed the high cytotoxicity in p53-overexpressed and Ad-p53 infected tumor cell lines.**
Saito H., Yamasaki R., Morishita N., Kawabata M., Bautista D., Dator D., Shirakawa T.
- OR-42. Interferon-expressing oncolytic adenovirus sensitized chemotherapy and radiation for pancreatic cancer in vitro and in vivo models.**
Han J., Shanley R., Xianghua L., Aoki K., Vickers S. M., Yamamoto M., Davydova J.
- OR-43. Analysis of combination therapy of the adenovirus vector carrying REIC/Dkk-3 (Ad-REIC) and the integrin antagonist cilengitide**
Shimazu Y., Kurozumi K., Ichikawa T., Fujii K., Onishi M., Ishida J., Watanabe M., Nasu Y., Kumon H., Date I.
- OR-44. Midkine promoter-driven oncolytic adenovirus with adenovirus 35 fiber modification achieves enhanced transduction of human osteosarcoma cells**
Kubo S., Takagi-Kimura M., Tamamoto A., Tagawa M., Kasahara N., Hashimoto-Tamaoki T.
- OR-45. Alpharetroviral vectors: Demonstration of safe and efficacious gene therapy using X-CGD iPSCs.**
Lin H-T., Otsu M., Nakauchi H.

Oral Session 8 (Abstracts OR46~OR51)
Vector I

13:00-14:00, Hall B

Chairpersons: Hiroyuki Mizuguchi & Hiroaki Mizukami

- OR-46. Development of a targeted adenovirus vector displaying a human fibronectin type III domain-based monobody in a fiber protein**
Matsui H., Sakurai F., Katayama K., Abe Y., Machitani M., Kurachi S., Tachibana M., Mizuguchi H.
- OR-47. Pharmacokinetic analysis of 11 AAV serotypes and 134 AAV mutants in one rhesus macaque by deep sequencing**
Adachi K., Kawano Y., Dissen G. A., Ojeda S. R., Nakai H.
- OR-48. Improving the adenovirus vector-mediated RNAi efficiency by lacking the expression of virus-associated RNAs**
Machitani M., Sakurai F., Tachibana M., Katayama K., Matsui H., Suzuki T., Mizuguchi H.
- OR-49. TANK-binding kinase 1 regulates adenovirus-induced innate immune response**
Tsuzuki S., Yamaguchi T., Shoji M., Tachibana M., Sakurai F., Kobiyama K., Ishii K. J., Akira S., Mizuguchi H.
- OR-50. Systemic administration of fiber redesigned infectivity-selective oncolytic adenovirus for cancer treatment**
Miura Y., Han J., Davydova J., Yamamoto M.
- OR-51. New efficient method to produce a peptide-displaying adenovirus library**
Yamamoto Y., Goto N., Miura K., Narumi K., Ohnami S., Miura Y., Yamamoto M., Aoki K.

Oral Session 9 (Abstracts OR52~OR57)
Vector II

14:00-15:00, Hall B

Chairpersons: Yumi Kanegae & Hiroyuki Nakai

- OR-52. Pancreatic cancer therapy by systemic administration of soluble Flt-1 messenger RNA delivery using polyplex nanomicelles**
Kinoh H., Uchida S., Matsui A., Ishii T., Cabral H., Itaka K., Kataoka K.
- OR-53. Reduction in the leaky expression of adenovirus genes and hepatotoxicity following administration of a replication-incompetent adenovirus vector by incorporation of miR-122a-targeted sequences into the 3'-untranslated region of the E4 gene**
Shimizu K., Sakurai F., Nakamura S., Nagamoto Y., Tomita K., Tachibana M., Mizuguchi H.
- OR-54. Efficient detection of circulating tumor cells using an oncolytic adenovirus containing microRNA-regulated gene expression system**
Sakurai F., Narii N., Tomita K., Tachibana M., Urata Y., Fujiwara T., Mizuguchi H.
- OR-55. Efficient production of adenovirus vector lacking genes of virus-associated RNAs that disturb cellular RNAi machinery**
Kondo S., Maekawa A., Pei Z., Suzuki M., Saito I., Kanegae Y.
- OR-56. Development of SIN retroviral vectors equipped with switch promoters driven by activation signals from the chimeric antigen receptors.**
Uchibori R., Ninomiya S., Tsukahara T., Ido H., Teruya T., Omine K., Urabe M., Mizukami H., Kume A., Riviere I., Sadelain M., Brentjens R. J., Mineno J., Ozawa K.
- OR-57. Novel chimeric antigen receptors with signaling domain of glucocorticoid-induced TNF-receptor.**
Okamoto S., Amaishi Y., Oshikawa T., Nukaya I., Kurosawa Y., Shiku H., Mineno J.

Poster Sessions

:Best Poster

:Excellent Poster

Date: July 5, 2013, 18:00-18:30, Poster Hall
Chairperson: Junichi Mineno

Poster Session 1 (Abstracts: PO58~PO62) Vector III

PO-58. Disruption of metabotropic glutamate receptor signaling and rescue through intravascular administration of AAV9 in a mouse model of spinocerebellar ataxia type 3

Konno A., Shuvaev A. N., Miyake N., Miyake K., Yanagi S., Shimada T., Hirai H.

PO-59. Effective and safe TCR gene therapy with silencing endogenous TCRs and high affinity TCR variants.

Okamoto S., Iwase N., Amaishi Y., Ikeda H., Fujiwara H., Kuzushima K., Yasukawa M., Shiku H., Mineno J.

PO-60. Successful systemic cancer targeting by adenovirus vector with AB-loop redesigned fiber via reducing liver sequestration

Miura Y., Han J., Davydova J., Yamamoto M.

PO-61. Advanced two-step transcriptional amplification as a novel system for cancer-specific gene expression and imaging

Kaku H., Ueki H., Ariyoshi Y., Hirata T., Yoshioka T., Li S-A., Huang P., Nasu Y., Kumon H., Watanabe M.

PO-62. Synergistic antitumor effect of the combination of adenoviral gene therapy and immunotherapy for head and neck cancer

Ando S., Saito H., Morishita N., Kawabata M., Otsuki N., Nibu K., Fujisawa M., Shirakawa T.

Date: July 5, 2013, 18:30-19:00, Poster Hall
Chairperson: Toshiro Shirakawa

Poster Session 2 (Abstracts: PO63~PO67) Vector IV

PO-63. Tolerance induction to arylsulfatase A by AAV mediated neonatal gene transfer into MLD model mice

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

PO-64. Oncolytic effects of a fiber knob substituted adenovirus vector to human lung cancer cells

Nagaya H., Kanno T., Hiwasa K., Nakagawa Y., Shimomura K., Nakano T., Nishizaki T., Tagawa M., Gotoh A.

PO-65. Robust and cell type-specific transgene expression by applying tetracycline-controlled system to AAV9

Yamaguchi T., Konno A., Miyake N., Miyake K., Shimada T., Hirai H.

PO-66. A super gene expression system strongly enhances the anticancer effects of the REIC/Dkk-3 encoding adenoviral vector

Watanabe M., Sakaguchi M., Kaku H., Ueki H., Ariyoshi Y., Hirata T., Yoshioka T., Huang P., Li S-A., Nasu Y., Huh N-H., Kumon H.

PO-67. Development of a powerful gene expression system using hTERT, SV40 and CMV triple translational enhancers

Watanabe M., Sakaguchi M., Kaku H., Ueki H., Ariyoshi Y., Hirata T., Yoshioka T., Kinoshita R., Futami J., Nasu Y., Huh N-H., Kumon H.

Poster Session 3 (Abstracts: PO68~PO72)
Vector V

- PO-68. Evaluation by the electron microscope of the oncolytic adenovirus by polymer multiplex processing treatment**
Takagi K., Hamada K., Ito T., Yoshihara C., Koyama Y., Tani K., Nawa A.
- PO-69. Global and effective gene delivery of neprilysin to the brain via intravascular administration of AAV vector in Alzheimer's disease mice**
Iwata N., Sekiguchi M., Hattori Y., Takahashi A., Asai M., Ji B., Higuchi M., Muramatsu S., Saido T. C.
- PO-70. Identification and characterization of nucleolar localization signals of Assembly-Activating Protein of AAV2**
Earley L. F., Sun X-X., Adachi K., Dai M., Nakai H.
- PO-71. Adenovirus-mediated induction of exogenous HER2 extracellular domain overcomes resistance to trastuzumab via ADCC activation in human cancer cells**
Yoshida R., Tazawa H., Hashimoto Y., Yano S., Onishi T., Sasaki T., Shirakawa Y., Kishimoto H., Uno F., Nishizaki M., Kagawa S., Fujiwara T.
- PO-72. Neotargeting HER2 negative cancer cells with Trastuzumab-based photoimmunotherapy by virally transduction of HER2-extracellular domain**
Ishida M., Kagawa S., Shimoyama K., Takehara K., Watamabe S., Noma K., Tazawa H., Hashimoto Y., Matsuoka J., Kobayashi H., Fujiwara T.

Poster Session 4 (Abstracts: PO73~PO77)
Cancer IV

- PO-73. Differential susceptibility of cancer stem cells and cancer cells undergoing epithelial-mesenchymal transition to oncolysis by CVB3 infection**
Sagara M., Inoue H., Miyamoto S., Sakamoto C., Nakano Y., Takayama K., Shimizu H., Nakanishi Y., Tani K.
- PO-74. A new therapeutic strategy for oral squamous cell carcinoma using G47 Δ , a third generation oncolytic herpes simplex virus type 1**
Uchihashi T., Nakahara H., Ino Y., Fukuhara H., Kogo M., Todo T.
- PO-75. A novel apoptotic mechanism of genetically engineered adenovirus-mediated tumor-specific p53 overexpression through E1A-dependent p21 and MDM2 suppression**
Tazawa H., Yamasaki Y., Hashimoto Y., Kuroda S., Yano S., Yoshida R., Uno F., Mizuguchi H., Ohtsuru A., Urata Y., Kagawa S., Fujiwara T.
- PO-76. An armed oncolytic herpes simplex virus expressing thrombospondin-1 has an enhanced in vivo antitumor effect against human gastric cancer**
Nakamori M., Tsuji T., Matsumura S., Kato T., Ino Y., Todo T., Yamaue H.
- PO-77. Dual cell death pathways induced by p53 transactivation overcome resistance to oncolytic adenovirus in human osteosarcoma cells**
Hasei J., Sasaki T., Tazawa H., Osaki S., Yamakawa Y., Kunisada T., Kagawa S., Urata Y., Ozaki T., Fujiwara T.

Poster Session 5 (Abstracts: PO78~PO82)
Cancer V

PO-78. Plasmacytoid dendritic cells play an essential role in GM-CSF-induced antitumor immunity

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

PO-79. Tumor targeting and anti-tumor activity mediated by T-lymphocytes with CD19-specific CAR in human B-cell lymphoma models

Tsukahara T., Ohmine K., Uchibori R., Ido H., Urabe M., Mizukami H., Kume A., Nakamura M., Riviere I., Sadelain M., Renier J.

PO-80. Roles of IL-21 in engineered T cell therapy against B cell lymphoma

Yamamoto C., Tsukahara T., Ohmine K., Teruya T., Ido H., Uchibori R., Urabe M., Mizukami H., Kume A., Nakamura M., Ozawa K.

PO-81. Development of Thrombospondin 1 shRNA as anti-cancer agent

Weng T-Y., Huang S-S., Yen M-C., Lai M-D.

PO-82. Aspects of nonviral gene therapy: Correlation of molecular parameters with lipoplex structure and transfection efficacy in pyridinium-based cationic lipids.

Parvizi P., Jubeli E., Raju L., Khalique N. A., Almeer A., Allam H., Manaa M. A., Larsen H., Nicholson D., Pungente M. D., Fyles T. M.

Poster Session 6 (Abstracts: PO83~PO87)
Cancer VI

PO-83. Cell-penetrating D-isomer peptides consisting of Pas and the p53 C-terminus induce autophagic cell death of glioma-initiating cells

Ueda Y., Wei F-Y., Hide T., Michiue H., Takayama K., Kaitsuka T., Nakamura H., Makino K., Kuratsu J., Futaki S., Tomizawa K.

PO-84. Induction of in vivo synthetic lethal RNAi responses to treat glioblastoma.

Michiue H., Nishiki T., Ohmori I., Dowdy S. F., Matsui H.

PO-85. EGFP peptides inhibit the glioblastoma cell proliferation by protein transduction therapy.

Akada S., Michiue H., Yamaguchi A., Nishiki T., Ohmori I., Matsui H.

PO-86. MicroRNA-133A regulates both fascin and MT-1 MMP and suppresses proliferation and invasion of esophageal squamous cell carcinoma

Akanuma N., Hoshino I., Akutsu Y., Nishimori T., Hanari N., Mori M., Murakami K., Isozaki Y., Maruyama T., Toyozumi T., Matsubara H.

PO-87. Tumor suppressor FHIT regulates tumor invasion of pancreatic cancer cells via inhibiting association of Ezrin and Actin cytoskeleton

Nishizaki M., Tazawa H., Kuroda S., Kishimoto H., Kagawa S., Fujiwara T.

Poster Session 7 (Abstracts: PO88~PO92)
Cancer VII

- PO-88. An Histone deacetylase inhibitor enhances cancer therapeutic efficiency of RNA polymerase III promoter driven-short hairpin RNA of Indoleamine 2,3-dioxygenase**
Yen M-C., Weng T-Y., Lai M-D.
- PO-89. Accumulation of epigenetic alteration could predict malignant formation in Intraductal Papillary Mucinous Neoplasm (IPMN)**
Yoshida K., Nagasaka T., Umeda Y., Yokomichi N., Mori Y., Kubota N., Morikawa T., Takehara Y., Inada R., Takehara K., Shigeyasu K., Nyuya A., Shiwaku R., Sadamori H., Suno M., Yagi T., Fujiwara T.
- PO-90. Combination treatment using adenovirus-mediated CD40 ligand gene delivery and NF- κ B inhibitor for pancreatic cancer**
Iwase R., Yanaga K., Haruki K., Shimada Y., Fujiwara Y., Furukawa K., Iida T., Shiba H., Uwagawa T., Kobayashi H., Misawa T., Ohashi T.
- PO-91. Oncolytic virus therapy using recombinant HSV-1 for nonseminoma germ cell tumors**
Kakutani S., Fukuhara H., Takeshima Y., Homma Y., Ino Y., Todo T.
- PO-92. Chemosensitizing effects of telomerase-specific oncolytic adenovirus in human osteosarcoma cells**
Osaki S., Sasaki T., Tazawa H., Hasei J., Yamakawa Y., Kunisada T., Kagawa S., Urata Y., Ozaki T., Fujiwara T.

Poster Session 8 (Abstracts: PO93~PO96)
Cancer VIII

- PO-93. Combination of the epidermal growth factor receptor tyrosine kinase inhibitor Erlotinib and intratumoral injection of oncolytic herpes simplex virus HF10 as a treatment strategy against human pancreatic cancers**
Yamamura K., Kasuya H., Sahin T. T., Tan G., Hotta Y., Kanda M., Kobayashi D., Tanaka C., Yamada S., Nakayama G., Fujii T., Koike M., Nomoto S., Fujiwara M., Tanaka M., Kodera Y.
- PO-94. Combination of herpes simplex virus type 1 mutant HF10 with anti-CTLA-4 antibody enhanced anti-tumor effects and improved mouse survival time**
Tsuda H., Huang S., Kohno S., Furui S., Inoue K., Ishihara M., Muraoka D., Shiku H., Mineno J.
- PO-95. Combination effect of oncolytic herpes virus HF10 with Bevacizumab against human breast carcinoma xenograft**
Tan G., Kasuya H., Sahin T. T., Shikano T., Yamada S., Kanzaki A., Yamamura K., Fujii T., Sugimoto H., Nomoto S., Nishikawa Y., Tanaka M., Noriko P., Takeda S., Nakao A., Kodera Y.
- PO-96. Antitumor effect of combination therapy with telomerase-specific oncolytic adenovirus and zoledronic acid in human osteosarcoma cells**
Yamakawa Y., Hasei J., Tazawa H., Osaki S., Sasaki T., Kunisada T., Yoshida A., Kagawa S., Urata Y., Ozaki T., Fujiwara T.

Poster Session 9 (Abstracts: PO97~PO101)
Cancer IX

- PO-97. A novel, fecal DNA methylation assay for the identification of a multiple gastrointestinal cancers including pancreatic cancer**
Morikawa T., Nagasaka T., Yoshida K., Mori Y., Umeda Y., Kubota N., Takehara Y., Yokomichi N., Inada R., Takehara K., Shigeyasu K., Nyuya A., Shiwaku R., Suno M., Fujiwara T.
- PO-98. MGMT methylation as a novel biomarker for the identification of stage III colorectal cancers at high-risk of disease recurrence following curative surgery**
Mori Y., Nagasaka T., Tazawa H., Umeda Y., Uno F., Morikawa T., Kubota N., Yoshida K., Takehara Y., Yokomichi N., Inada R., Takehara K., Shigeyasu K., Nyuya A., Shiwaku R., Suno M., Sadamori H., Fujiwara T.
- PO-99. Cytokeratin-19 staining is a novel, predictive biomarker for extra-hepatic metastasis in hepatocellular carcinoma**
Yokomichi N., Nagasaka T., Umeda Y., Mori Y., Morikawa T., Kubota N., Yoshida K., Takehara Y., Inada R., Takehara K., Shigeyasu K., Nyuya A., Shiwaku R., Sadamori H., Suno M., Yagi T., Fujiwara T.
- PO-100. A biological imaging system for detecting genetic alterations in circulating tumor cells using telomerase-specific replication-competent adenovirus**
Shigeyasu K., Hashimoto Y., Uno F., Kagawa S., Tazawa H., Nagasaka T., Mizuguchi H., Urata Y., Fujiwara T.
- PO-101. Genetic and epigenetic alterations in the netrin-1 receptors, UNC5C and DCC, constitutes a previously unrecognized pathway in gastric cancer progression**
Kubota N., Nagasaka T., Toda K., Shigeyasu K., Mori Y., Morikawa T., Umeda Y., Yokomichi N., Yoshida K., Takehara Y., Inada R., Takehara K., Nyuya A., Shiwaku R., Uno F., Suno M., Fujiwara T.

Poster Session 10 (Abstracts: PO102~PO105)
Cancer X

- PO-102. Differential treatment strategies for advanced colorectal cancer according to mutation spectrum in the Ras-Raf signaling pathway and microsatellite instability**
Inada R., Nagasaka T., Uno F., Mori Y., Morikawa T., Kubota N., Yokomichi N., Takehara Y., Takehara K., Shigeyasu K., Nyuya A., Shiwaku R., Umeda Y., Suno M., Sadamori H., Yagi T., Fujiwara T.
- PO-103. A simple detection system for adenovirus receptor expression using a telomerase-specific replication-competent adenovirus**
Sasaki T., Tazawa H., Hasei J., Osaki S., Hashimoto Y., Kagawa S., Urata Y., Ozaki T., Fujiwara T.
- PO-104. Novel strategy for eradicating lymph node metastasis of early-stage colorectal cancers using telomerase-dependent replicating adenoviral agent**
Kikuchi S., Kishimoto H., Tazawa H., Hashimoto Y., Uno F., Nishizaki M., Kagawa S., Urata Y., Hoffman R. M., Fujiwara T.
- PO-105. Preclinical evaluation of cytotoxic fluorescent protein KillerRed as novel photosensitizer in photodynamic therapy for cancer**
Takehara K., Tazawa H., Hashimoto Y., Kishimoto H., Narii N., Mizuguchi H., Fujiwara T.

Poster Session 11 (Abstracts: PO106~PO110)
Genetic Diseases II & Basic Science III

PO-106. Disruption of metabotropic glutamate receptor signaling in Purkinje cells expressing a lentivirally transduced mutant SCA1

Anton S.

PO-107. Non-myeloablative preconditioning with ACK2 for cell therapy for Hunter disease

Yokoi T.

PO-108. Route of AAV9 vector introduction decides the distribution patterns of transduced cell in the cerebellum: Implication of gene therapy approaches for cerebellar disease

Huda F., Konno A., Matsuzaki Y., Goenawan H., Hirai H.

PO-109. Establishment of pancreatic stem cell line generated from fibroblast-derived iPS cells

Kuise T., Noguchi H., Tazawa H., Kawai T., Fujiwara T.

PO-110. Generation of neurodegenerative disease model mice using the altered neuron-specific synapsin I promoter

Matsuzaki Y., Oue M., Hirai H.

Corporate Seminars

▶Day I

Corporate Seminar-I (Yakult Honsha Inc.)

Date: July 4, 2013, 12:00-12:50, Hall A
Chairperson: Hisahiro Matsubara (Chiba University)

Masahiko Nishiyama (Gunma University)

Molecular analysis and cancer therapeutics

Corporate Seminar-II (Merck Serono Inc. & Bristol-Myers Squibb)

Date: July 4, 2013, 12:00-12:50, Hall B
Chairperson: Hiroki Yamaue (Wakayama Medical University)

Kazuto Nishio (Kinki University)

The trend of the molecular target medicine and companion diagnosis

▶Day II

Corporate Seminar-III (Chugai Pharmaceutical Co., Ltd.)

English presentation
Date: July 5, 2013, 12:00-12:50, Hall A
Chairperson: Shinae Kondoh (Tokyo Institute of Technology)

Lily Wu (University of California, Los Angeles, USA)

Refinements in Adenoviral Mediated Reporter Imaging Technology

Corporate Seminar-IV (Takara Bio Inc.)

Date: July 5, 2013, 12:00-12:50, Hall B
Chairperson: Junichi Mineno (Takara Bio Inc.)

Hikaru Takakura (Takara Bio Inc.)

Contract Development and Manufacturing Service -Comprehensive Services from Development through Manufacturing for Gene Therapy and Regenerative Medicine-

▶Day III

Corporate Seminar-V (Otsuka Pharmaceutical Co., Ltd.)

Date: July 6, 2013, 12:00-12:50, Hall A
Chairperson: Hideaki Shimada (Toho University)

Eiji Kobayashi (Jichi Medical University)

Pig Center for Gene Therapy in Japan

Corporate Seminar-VI (Oncolys BioPharma Inc.)

Date: July 6, 2013, 12:00-12:50, Hall B
Chairperson: Satoru Kyo (Kanazawa University)

Hiroshi Tazawa (Okayama University)
Masahiro Takakura (Kanazawa University)
Nobuyoshi Katagiri (Oncolys BioPharma Inc.)

A novel adenovirus-based CTC detection technique and its clinical applications
