

THE 13th ANNUAL MEETING

2007

**JAPAN SOCIETY OF
GENE THERAPY**

PROGRAM AND ABSTRACTS

Date

June 28-30, 2007

Venue

International Conference Hall
(Aichi Cancer Center)

1-1, Kanokoden, Chikusa-ku,
Nagoya

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

Presidential Symposium

Date: June 29, 2007

13:30-15:30, Hall A

Chairpersons: Yoshiro Niitsu, Kenzaburo Tani

Shinya Yamanaka (*Institute for Frontier Medical Sciences, Kyoto University*)

GENERATION OF PLURIPOTENCY BY DEFINED FACTORS

David Klatzmann (*Hôpital Pitié-Salpêtrière*)

THERAPEUTIC USE OF REGULATORY T CELLS

James S. Economou (*University of California, Los Angeles*)

GENETIC ENGINEERING OF THE IMMUNE SYSTEM

Andrew D. Miller (*Imperial College London*)

WHITHER SYNTHETIC NON-VIRAL VECTORS IN GENE THERAPY?

Special Lecture

Date: June 28, 2007

13:30-14:00, Hall A

Chairperson: Takashi Shimada

Mitsuru Hashida (*Graduate School of Pharmaceutical Sciences, Kyoto University*)

PRESENT STATUS AND FUTURE PROSPECT OF DDS IN GENE THERAPY

Evening Seminar

(*Japanese*)

Date: June 29, 2007

18:30-19:30, Tokugawa-en

Chairperson: Jun Yoshida

Fumimaro Takaku (*Jichi Medical University*)

RECENT TREND IN HUMAN GENE THERAPY

Translational Research Program I

(Japanese)

Date: June 29, 2007

11:45-12:00

Chairpersons: Shigetaka Asano, Jun Yoshida

TR I-1. ROLE OF PMDA IN PUTTING NEXT GENERATION MEDICAL SERVICES TO PRACTICAL USE

Katsutoshi Tanaka (Pharmaceuticals and Medical Devices Agency)

Translational Research Program II

(Japanese)

Date: June 29, 2007

15:30-17:30

Chairpersons: Shigetaka Asano, Jun Yoshida

TR II-1. BASIC STUDY

IN VIVO BONE REGENERATION WITHOUT CELL TRANSPLANTATION USING SUPRAMOLECULAR NANOCARRIER FOR GENE DELIVERY

Itaka K., Ohba S., Chung U., Kataoka K.

TR II-2. PRECLINICAL STUDY

LONG-TERM BEHAVIORAL RECOVERY IN A PRIMATE MODEL OF PARKINSON'S DISEASE AFTER GENE TRANSFER OF DOPAMINE-SYNTHEZING ENZYMES

Muramatsu S., Ono F., Takino N., Nishida H., Asari S., Ikeguchi K., Fujimoto K., Tsukada H., Terao K., Ozawa K., Nakano I.

TR II-3. CLINICAL STUDY

RESULTS OF A PHASE I/II STUDY OF AD-OC-TK/VAL GENE THERAPY FOR THE PATIENTS WITH METASTATIC OR LOCAL RECURRENT PROSTATE CANCER

Shirakawa T., Gotoh A., Terao S., Hinata N., Goda K., Tanaka K., Takenaka A., Hara I., Kamidono S., Fujisawa M.

TR II-4. DESIGN, DEVELOPMENT AND MANUFACTURE OF PROCESSED CELLS, TISSUES AND GENE PRODUCTS FOR CLINICAL RESEARCH AT THE CENTER FOR GENETIC AND REGENERATIVE MEDICINE, NAGOYA UNIVERSITY HOSPITAL

Toshihiko Wakabayashi, Atsushi Natsume, Masazumi Fujii, Masaaki Mizuno, and Jun Yoshida

TR II-5. THE PROMOTION STRATEGY FOR LIFE SCIENCE BASED ON THE 3RD SCIENCE & TECHNOLOGY BASIC PLAN

Mitsuaki Yamamoto (Council for Science and Technology Policy, Cabinet office)

TR II-6. BRIDGE BETWEEN BASIC RESEARCH AND CLINICAL RESEARCH

Yutaka Hishiyama (Ministry of Education, Culture, Sports, Science and Technology)

**Joint Symposium with
The Japanese Society of Gene Design and Delivery**

For the Future Collaboration

Date: June 28, 2007

10:00-12:00, Hall A

Chairpersons: Kazunori Kataoka, Keiya Ozawa

1. Kazunori Kataoka (The University of Tokyo)

POLYMERIC-MICELLAR NANODEVICE FOR SMART GENE VECTOR

2. Kazuo Maruyama (Teikyo University School of Pharmacy)

GENE DELIVERY BY “BUBBLE LIPOSOME” AND ULTRASOUND

3. Hideyoshi Harashima (Hokkaido University)

QUANTITATIVE ANALYSIS OF TRANSFECTION EFFICIENCY BETWEEN VIRAL AND NON-VIRAL VECTORS

4. *Keiya Ozawa (Jichi Medical University)*

APPLICATION OF AAV (ADENO-ASSOCIATED VIRUS) TO GENE THERAPY

5. *Izumu Saito (Institute of Medical Science, University of Tokyo)*

ADENOVIRUS VECTORS WITH HIGHLY REDUCED IMMUNOGENICITY: USE OF EF1- α PROMOTER AND IMPROVED HELPER-DEPENDENT VECTOR

Asian Gene Therapy Symposium

Past, Present and Future Direction of Human Gene Therapy in Asian Countries

Date: June 30, 2007

10:12-12:00, Hall A

Chairpersons: Yasufumi Kaneda, Sunyoung Kim

1. *Zhaohui Peng (SiBiono GeneTech Co.,Ltd.)*

CURRENT STATUS OF GENE THERAPY IN CHINA

2. *Hu Fang (Shanghai Sunway Biotech Co. Ltd.)*

PAST, PRESENT AND FUTURE DIRECTION OF HUMAN GENTHERAPY IN CHINA & THE EXPERENCE OF ONCOLYTIC VIRUS R&D IN SUNWAY

3. *Chae-Ok Yun (Yonsei University College of Medicine)*

TARGETED CANCER GENE THERAPY WITH A NOVEL ACTIVITY OF TUMOR TISSUE PENETRINATION

4. *Sunyoung Kim (Seoul National University)*

CURRENT STATUS OF GENE THERAPY IN KOREA

5. *Yasufumi Kaneda (Graduate School of Medicine, Osaka University)*

DEVELOPMENT OF MOLECULAR THERAPY AGAINST INTRACTABLE HUMAN DISEASE USING HVJ-E

Clinical Research Enterprise

Date: June 30, 2007

13:00-15:00, Hall A

Chairpersons: Mitsuo Itakura, Toya Ohashi

1. *Dale G. Ando (Sangamo BioSciences, Inc)*
**IMPROVED NEUROLOGIC EXAM AND NERVE CONDUCTION VELOCITIES IN
DIABETIC NEUROPATHY PATIENTS TREATED WITH VASCULAR ENDOTHELIAL
GROWTH FACTOR (VEGF) ZINC FINGER PROTEIN ACTIVATOR (SB-509)**
2. *Ryuichi Morishita (Graduate School of Medicine, Osaka University)*
**CLINICAL TRIALS OF HGF (HEPATOCTE GROWTH FACTOR) GENE THERAPY IN
PERIPHERAL ARTERIAL DISEASE (PAD)**
3. *Yoshikazu Yonemitsu (Chiba University Graduate School of Medicine)*
**REVERSE GENETICS OF SENDAI VIRUS: DEVELOPMENT OF BIO-PLATFORM FOR
HUMAN GENE THERAPY**
4. *Kunio Matsumoto (Kanazawa University Cancer Research Institute)*
ANTI-CANCER APPROACH WITH NK4: MECHANISMS AN SIGNIFICANCE
5. *Yasuhiko Tabata (Institute for Frontier Medical Sciences, Kyoto University)*
**NON-VIRAL GENE CARRIER NECESSARY FOR BASIC RESEARCHES OF BIOLOGY
AND MEDICINE AND ADVANCED MEDICAL THERAPY**
6. *Toshiyoshi Fujiwara (Okayama University Graduate School)*
**THERANOSTIC APPLICATION OF TELOMERASE-SPECIFIC ONCOLYTIC
ADENOVIRAL AGENTS**
7. *Toshihiro Nakajima (GenomIdea, Inc.)*
**HVJ-ENVELOPE NON-VIRAL VECTOR FOR THE CLINICAL TRIAL OF CANCER
IMMUNE THERAPY**

8. *Shirley M. Clift (Cell Genesys, Inc.)*

CLINICAL UPDATE: A DOSE-ESCALATION TRIAL OF GM-CSF-GENE TRANSDUCED ALLOGENEIC PROSTATE CANCER CELLULAR IMMUNOTHERAPY (GVAX IMMUNOTHERAPY FOR PROSTATE CANCER) IN COMBINATION WITH A FULLY HUMAN ANTI-CTLA ANTIBODY (MDX-010, IPILIMUMAB) IN PATIENTS WITH METASTATIC HORMONE-REFRACTORY PROSTATE CANCER (HRPC)

Plenary Session

Vector Development

Date: June 28, 2007

14:00-16:00, Hall A

Chairpersons: Noriyuki Kasahara, Yutaka Kawakami

1. *Yutaka Kawakami (Keio University School of Medicine)*

(Key Note Lecture: K-1)

IMMUNOTHERAPY AND GENE THERAPY USING VIRAL VECTORS

2. *Noriyuki Kasahara (University of California Los Angeles School of Medicine)*

COMBINING ONCOLYTIC VIROTHERAPY AND ADOPTIVE IMMUNOTHERAPY FOR CANCER

3. *Yoshinaga Saeki (The Ohio State University Medical Center)*

DEVELOPING HERPES-BASED VECTOR SYSTEMS AND STUDYING FACTORS THAT LIMIT HERPES VECTOR-MEDIATED IN VIVO GENE DELIVERY AND ONCOLYSIS

4. *Hideho Okada (University of Pittsburgh Cancer Institute)*

TOLL LIKE RECEPTOR-3 LIGAND POLY-ICLC PROMOTES THE EFFICACY OF GLIOMA VACCINES – PRECLINICAL AND CLINICAL STUDIES

5. *Atsushi Miyanochara (UCSD School of Medicine)*

GENE TRANSFER TO NEURAL AND CARDIAC CELLS WITH VIRAL VECTORS

Day 1: June 28, 2007

Oral Presentation 1 (Abstracts 1-5)

Gene Therapy for Disease Model (1)

9:00~10:00, Hall A

Chairpersons: Yoshikatsu Eto, Hiroyuki Nunoi

1. NOVEL VACCINATION (HVJ-LIPOSOME/ HSP65 DNA+ IL-12 DNA) AGAINST TUBERCULOSIS USING CYNOMOLGUS MONKEY

Okada M., Kita Y., Kanamaru N., Hashimoto S.

2. TRANSIENT EXPRESSION OF WHIM-ASSOCIATED MUTANT CXCR4 BY TRANSDUCED HUMANHEMATOPOIETIC STEM CELL ENHANCES THE ENGRAFTMENT IN NOD/SCID MICE XENOGRAFT MODEL

Kawai T., Choi U., Liu P-C., Lantz L. M., Malech H. L.

3. BONE MARROW-DERIVED KERATINOCYTES CAN AMELIORATE ABNORMALITY OF THE GENETIC SKIN DISEASE

Tamai K., Yamazaki T., Otsuru S., Chino T., Kikuchi Y., Nimura K., ShimboT., Kaneda Y.

4. EFFICIENT AND STABLE LIVER TRANSDUCTION BY A SELF-COMPLEMENTARY ADENO-ASSOCIATED VIRUS VECTOR FOR PHENYLKETONURIA GENE THERAPY

Kume A., Matsushita T., Mizukami H., Urabe M., Okada T., Ozawa K.

5. INTRANASAL ADMINISTRATION OF HVJ-E CONTAINING ALLERGEN ATTENUATES EXPERIMENTAL ALLERGIC RHINITIS

Yasuoka E., Tamai K., Kaneda Y.

Oral Presentation 2 (Abstracts 6-15)

Viral Vector (1): Sendai Virus Vectors

16:00~16:48, Hall A

Chairpersons: Masafumi Onodera, Makoto Otsu

6. DEVELOPMENT OF NOVEL DEFECTIVE SENDAI VIRUS VECTORS CAPABLE OF EXPRESSING THERAPEUTIC GENES PERSISTENTLY

Nishimura K., Segawa H., Nakanishi M.

7. DETECTION OF CLUSTERED GFP POSITIVE CELLS TRANSDUCED BY LENTIVIRAL VECTOR PSEUDOTYPED SENDAI VIRUS ENVELOPES IN MOUSE NASAL EPITHELIUM

Mitomo K., Inoue M., Iwasaki H., Tabata T., Yoshizaki M., Nagashima N., Washizawa K., Fujikawa S., Akiba E., Geddes D. M., Griesenbach U., Alton E. W. F. W., Hasegawa M.

8. UROKINASE-TARGETED ONCOLYTIC SENDAI VIRUS VECTORS, WHICH ARE ACTIVATED UNDER UROKINASE-RICH ENVIRONMENT, SELECTIVELY KILL SOLID TUMOR AND INHIBIT THE TUMOR GROWTH VIA SYNCYTIA FORMATION

Kinoh H., Inoue M., Komaru J., Ueda Y., Yonemitsu Y., Hasegawa M.

9. RNA REPLICON VECTOR DERIVED FROM SENDAI VIRUS SELF-REPLICATING RIBONUCLEOPROTEIN COMPLEXES SHOWS EFFICIENT TRANSDUCTION IN VIVO

Hironaka T., Inoue M., Suzuki E., Iwasaki H., Washizawa K., Fujikawa S., Iida A., Hasegawa M.

Viral Vector (2): AAV & Oncolytic Virus

16:48~18:00, Hall A

Chairpersons: Fumio Endo, Masaaki Mizuno

10. PRODUCTION OF MORE POTENT TYPE 1 ADENO-ASSOCIATED VIRUS VECTORS IN INSECT CELLS

Urabe M., Mizukami H., Bakker A., Kume A., Hermens W., Ozawa K.

11. ADVANCES IN PARKIN GENE THERAPY –A PRIMATE STUDY–

Mochizuki H., Yasuda T., Nihira T., Inoue K., Yamazaki Y., Terao K., Takada M., Shimada T., Mizuno Y.

12. WHAT IS THE NEXT OF ONCOLYTIC VIRUS CLINICAL TRIAL

Kasuya H., Nomura N., Kanazumi N., Nomoto S., Takeda S., Sugimoto H., Shikano T., Tanabe K. K., Nakao A.

13. CONDITIONALLY-REPLICATIVE ADENOVIRAL VECTORS WITH BIOLUMINESCENCE-BASED REPLICATION MONITORING CAPABILITY FOR LUNG CANCER

Davydova J., Brown E., Yamamoto M.

14. INTRAVENOUS TREATMENT WITH THIRD-GENERATION ONCOLYTIC HERPES SIMPLEX VIRUSES FOR RENAL CELL CARCINOMAS

Tsurumaki Y., Fukuhara H., Ino Y., Kitamura T., Todo T.

15. ONCOLYTIC ADENOVIRUS-MEDIATED TRAIL GENE TRANSFER FOR PERITONEAL DISSEMINATION OF XENOTRANSPLANTED HUMAN GASTRIC CANCER CELLS

Kagawa S., Hioki M., Fujiwara T., Sakai R., Kojima T., Watanabe Y., Hashimoto Y., Urata Y., Uno F., Tanaka N., Fujiwara T.

Oral Presentation 3 (Abstracts 16-20)

Gene Therapy for Disease Model (2)

9:00~10:00, Hall B

Chairpersons: Torayuki Okuyama, Yoshikazu Yonemitsu

16. KUPFFER CELL TARGETED DELIVERY OF NF κ B DECOY SUPPRESS HEPATIC ISCHEMIA/REPERFUSION INJURY

Higuchi Y., Wu C., Kawakami S., Hashida M.

17. SAFE AND EXTENSIVE rAAV8-MEDIATED α -SG TRANSDUCTION OF THE LIMB-GIRDLE MUSCULAR DYSTROPHY TYPE 2D MODEL MICE

Nishiyama A., Among B. N., Shin J-H., Nakai H., Okada T., Takeda S.

18. EFFECTIVE MICRODYSTROPHIN GENE DELIVERY INTO THE DYSTROPHIC DOGS WITH rAAV SEROTYPE 8

Ohshima S., Shin J-H., Nishiyama A., Yuasa K., Nakai H., Okada T., Takeda S.

19. EFFICIENT SYSTEMIC DELIVERY OF rAAV8 INTO DYSTROPHIC ANIMALS BY UBCUTANEOUS INJECTION

Shin J-H., Ohshima S., Nishiyama A., Yuasa K., Nakai H., Okada T., Takeda S.

20. TOWARDS CLINICAL GENE THERAPY FOR CHRONIC GRANULOMATOUS DISEASE: OPTIMIZATION OF GENE TRANSDUCTION INTO HEMATOPOIETIC STEM/PROGENITOR CELLS

Horiuchi Y., Otsu M., Kiyokawa N., Migita O., Ogata T., Li X-K., Onodera M., Kume A., Okuyama T., Fujimoto J., Nakauchi H., Kuratsuji T.

Oral Presentation 4 (Abstracts 21-31)

Viral Vector (3): Adenoviral Vector

16:00~17:00, Hall B

Chairpersons: Yumi Kanegae, Hiromi Kumon

21. DIRECT COMPARISON OF ADENO-VIRUS SEROTYPES FOR SYSTEMIC DELIVERY BY MONITORING OF *IN VIVO* QUANTITATIVE NONINVASIVE IMAGING

Miyake K., Miyake N., Hirai Y., Shimada T.

22. FIRST-GENERATION ADENOVIRUS VECTORS BEARING EF1 α PROMOTER DO NOT INDUCE HOST IMMUNE RESPONSES AND PROLONG TRANSGENE EXPRESSIONS.

Nakai M., Komiya K., Murata M., Kimura T., Kanaoka M., Kanegae Y., Saito I.

23. CONDITIONALLY REPLICATING ADENOVIRUS REGULATED BY *SURVIVIN* AND CEA PROMOTERS EXERTED MORE STRICT CANCER SPECIFICITY AND POTENT ANTI-CANCER EFFECT

Murofushi Y., Kamizono J., Khai N. C., Takahashi T., Komiya S., Kosai K.

24. INTRAVENOUS DELIVERY OF ADENOVIRUS SEROTYPE 35 VECTORS IN NONHUMAN PRIMATES

Sakurai F., Akitomo K., Nakamura S., Shibata H., Terao K., Kawabata K., Mizuguchi H.

25. GENERATION OF FIBER-MODIFIED ADENOVIRUS VECTORS CONTAINING THE TAT PEPTIDE IN THE FIBER KNOB

Kurachi S., Tashiro K., Sakurai H., Sakurai F., Kawabata K., Yayama K., Okamoto H., Nakagawa S., Mizuguchi H.

In Vivo Gene Therapy

17:00~18:12, Hall B

Chairpersons: Hiroyuki Mizuguchi, Takashi Okada

26. GENE TRANSFER INTO GUINEA PIG COCHLEA VIA SEVERAL TYPES OF AAV VECTORS

Konishi M., Kawamoto K., Izumikawa M., Yagi M., Asako M., Kuriyama H., Yamashita T.

27. PREVALENCE OF NEUTRALIZING ANTIBODY AGAINST AAV SEROTYPES 1, 8 AND 9 IN CYNOMOLGUS MONKEY COLONIES

Mizukami H., Ishiwata A., Ono F., Takano J., Fujimoto K., Mimuro J, Urabe M., Kume A., Terao K., Sakata Y., Ozawa K.

28. ADENOVIRUS VECTORS STIMULATE INNATE IMMUNITY VIA MYD88/TLR9-DEPENDENT AND –INDEPENDENT PATHWAYS

Yamaguchi T., Kawabata K., Koizumi N., Sakurai F., Nakashima K., Sasaki T., Okada N., Mizuguchi H.

29. REIC/Dkk-3 AS A POTENTIAL GENE THERAPEUTIC AGENT AGAINST HUMAN TESTICULAR CANCER

Tanimoto R., Abarzua F., Sakaguchi M., Nasu Y., Kumon H., Huh N.

- 30. SAFETY OF INTRACRANIAL AAV VECTOR INJECTION IN CYNOMOLGUS MONKEYS**
Mizukami H., Muramatsu S., Ono F., Mimuro J., Sakata Y., Urabe M., Kume A., Terao K., Nakano I., Ozawa K.
- 31. INHIBITION OF CHOROIDDAL NEOVASCULARIZATION BY ANGIOINHIBITORY GENES DERIVED BY THE RPE SPECIFIC PROMOTER**
Kachi S., Binley K., Umeda N., Akiyama H., Yokoi K., Xiao W., Kachi M., Esapa M., Iqball S., Kan O., Picard M., Naylor S., Campochiaro P. A.

Day 2: June 29, 2007

Oral Presentation 5 (Key Note Lecture & Abstracts 32-43)

Cancer Gene Therapy (1)

9:00~10:33, Hall A

Chairpersons: Hideaki Tahara, Ryuzou Ueda

Key Note Lecture-2: K-2

GENETIC ENGINEERING OF HUMAN DENDRITIC CELLS WITH TUMOR ANTIGEN-ENCODING ADENOVIRUSES FOR CANCER VACCINES

Butterfield L. H., Ph.D.

- 32. FEASIBILITY OF VACCINE THERAPY WITH DENDRITIC CELLS GENETICALLY MODIFIED TO EXPRESS THE TUMOR-ASSOCIATED ANTIGEN HER2**
Nabekura T., Nagasawa T., Nakauchi H., Onodera M.
- 33. GENERATION OF A LARGE NUMBER OF DENDRITIC CELLS *in vitro* FOR CANCER IMMUNOTHERAPY**
Harada Y., Ueda Y., Ishida K., Kato T., Komaru A., Kinoh H., Matsunaga A., Ichikawa T., Yonemitsu Y.

34. DENDRITIC CELL-BASED IMMUNOSTIMULATORY VIROTHERAPY USING TEMPERATURE-SENSITIVE MUTANT SeV/dF: AN ADVANCED REPORT OF PRECLINICAL EFFICACY STUDY AGAINST NEUROBLASTOMA

Tanaka S., Yonemitsu Y., Tatsuta K., Yoshida K., Okano S., Kondo H., Shibata S., Tajiri T., Taguchi T., Ueda Y., Inoue M., Hasegawa M., Sueishi K.

35. LOCAL AND DISTANT CONTROLS OF MURINE SQUAMOUS CELL CARCINOMA BY A COMBINATION THERAPY WITH CARBON ION BEAM TREATMENT AND DENDRITIC CELL INJECTION

Ueda Y., Matsunaga A., Ishida K., Yamada S., Kato T., Harada Y., Kinoh H., Komaru A., Tujii H., Ochiai T., Yonemitsu Y.

36. ENHANCEMENT OF HUMAN MONOCYTE-DERIVED DENDRITIC CELL FUNCTIONS BY ADENOVIRUS-MEDIATED RNA INTERFERENCE OF STAT-3

Iwata T., Sumimoto H., Mizuguchi H., Kawakami Y.

37. DENDRITIC CELL THERAPY VACCINATED WITH HLA-A2 RESTRICTED IL13R ALPHA 2 PEPTIDE IN PATIENTS WITH MALIGNANT GLIOMA: CLINICAL TRIAL AND ASSESSMENT OF COMBINATION THERAPY WITH INTERFERON-BETA GENE THERAPY

Wakabayashi T., Natsume A., Mizuno M., Fujii M., Kajita Y., Nakahara N., Yoshida J.

Cancer Gene Therapy (2)

10:33~11:45, Hall A

Chairpersons: Yoshinobu Manome, Hiromitsu Nakauchi,

38. IN VIVO ANTITUMOR VACCINE EFFECTS OF NON-TRANSMISSIBLE SeV ENCODING GM-CSF IN MOUSE RENAL CELL CARCINOMA MODELS

Inoue H., Nakamura T., Hisano T., Xin M., Asahi S., Kurita R., Takayama K., Yonemitsu Y., Inoue M., Hasegawa M., Nakanishi Y., Tani K.

39. SHORT INTERFERING RNA VECTOR AGAINST VEGF-C SUPPRESSES LYMPHATIC METASTASIS OF MURINE MAMMARY CANCER MODEL

Shibata M., Morimoto J., Otsuki Y.

40. COMPARISON OF EFFECT OF LENTIVIRAL VECTORS CONTAINING CMV OR MHCII PROMOTER AFTER INTRAVENOUS ADMINISTRATION FOR GENETIC VACCINATION

Kimura T., Koya R. C., Faure-Kumar E., Prins R. M., Comin-Anduix B., Ohashi T., Eto Y., Egawa S., Kasahara N., Stripecke R.

41. ASH1 GENE MAY BE PROTOTYPIC “LINEAGE-SURVIVAL ONCOGENE” AND SPECIFIC THERAPEUTIC TARGET FOR LUNG CANCERS WITH NEUROENDOCRINE FEATURES

Osada H., Tatematsu Y., Takeuchi T., Tomida S., Murakami H., Kondo Y., Yatabe Y., Sekido Y., Takahashi T.

42. IMMUNO-GENE THERAPY FOR HEPATOCELLULAR CARCINOMA BY SUBCUTANEOUS INJECTION OF ADENOVIRUS VECTOR EXPRESSING CD40 LIGAND

Iida T., Shiba H., Misawa T., Yanaga K., Ohashi T., Eto Y.

43. IMMUNO-GENE THERAPY FOR METASTATIC OF LIVER CANCER BY SUBCUTANEOUS INJECTION OF ADENOVIRUS VECTOR EXPRESSING CD40 LIGAND

Hanyu K., Iida T., Shiba H., Misawa T., Yanaga K., Ohashi T., Eto Y.

Day 3: June 30, 2007

Oral Presentation 6 (Abstracts 44-49)

Cancer Gene Therapy (3)

9:00~10:12, Hall A

Chairpersons: Toshiyoshi Fujiwara, Teruhiko Yoshida

44. REPLICATION-COMPETENT RETROVIRUS VECTOR -MEDIATED SUICIDE GENE THERAPY IN A MULTIFOCAL LIVER METASTASIS MODEL OF COLORECTAL CANCER

Hiraoka K., Kimura T., Ohno I., Logg C., Haga K., Shichinohe T., Miyamoto M., Hirano S., Kondo S., Kasahara N.

45. A 5-YEAR FOLLOW UP OF THE PATIENTS WHO HAVE UNDERGONE AN *MDR1* GENE THERAPY AGAINST METASTATIC BREAST CANCER

Sugimoto Y., Mitsuhashi J., Tsukahara S., Suzuki R., Oh-hara Y., Nishi S., Hosoyama H., Minowa S., Shibata H., Ito., Y., Hatake K., Aiba K., Takahashi S.

46. THERAPEUTIC EFFECT OF SUICIDE GENE-TRANSFERRED MESENCHYMAL STEM CELLS IN A RAT GLIOMA MODEL

Kosaka H., Ichikawa T., Kambara H., Inoue S., Maruo T., Kurozumi K., Nakamura K., Hamada H., Date I.

47. BYSTANDER EFFECT BETWEEN MESENCHYMAL STEM CELLS AND BRAIN TUMOR CELLS IN THE HSV-TK/GCV SYSTEM IS NOT SPECIES SPECIFIC

Namba H., Li S., Gao Y., Tokuyama T., Yokota N.

48. INTERFERON- α GENE TRANSFER ENHANCES ANTITUMOR ACTIVITY OF ALLOGENEIC HEMATOPOIETIC STEM CELL TRANSPLANTATION AGAINST SOLID CANCERS

Aoki K., Hara H., Kobayashi A., Ohashi M., Yoshida K., Yoshida T.

49. ADENO-ASSOCIATED VIRUS (AAV) TYPE-8 MEDIATED SYSTEMIC ANTIANGIOGENIC GENE THERAPY FOR MURINE MODEL OF MULTIPLE MYELOMA

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

Oral Presentation 7 (Abstracts 50-60)

DDS Development I

15:00~16:00, Hall A

Chairpersons: Hideyoshi Harashima, Mahito Nakanishi

50. TISSUE SPECIFIC GENE DELIVERY WITH LIPOSOMAL BUBBLES AND ULTRASOUND

Suzuki R., Oda Y., Takizawa T., Negishi Y., Utoguchi N., Maruyama K.

51. NAIVE T-LIKE CELL POPULATIONS ARE EXPANDABLE *EX VIVO* TO LARGE NUMBERS IN COMBINATION WITH RETRONECTIN® AND CD3-SPECIFIC ANTIBODY PLUS IL-2, AND NAÏVE T-LIKE CELLS SHOW SUPERIOR RECOGNIZING ABILITY OF TUMOR ANTIGEN

Ideno M., Enoki T., Kato I.

52. DIPHTHERIA TOXIN T DOMAIN-CONJUGATED PEI POLYPLEX FOR ENHANCED TRANFECTION VIA ELEVATED ENDOSOMAL ESCAPE

Kakimoto S., Nagasaki T.

53. FRAGMENTATION OF CATIONIC GENE CARRIERS LEADS TO THE ENHANCED GENE EXPRESSION *IN VITRO*

Hashimoto T., Yamaoka T.

54. LIPOSOME-MEDIATED INTERFERON-BETA GENE DELIVERY PROMOTES FUNCTIONAL RECOVERY AFTER SPINAL CORD INJURY

Ito M., Natsume A., Takeuchi H., Wakabayashi T., Mizuno M., Fujii M., Shimato S., Ito S., Ohno M., Yoshida J.

DDS Development II

16:00~17:12, Hall A

Chairpersons: Toshihiro Nukiwa, Toshihiko Wakabayashi

55. GENE THERAPY ENHANCING THE UBIQUITIN-PROTEASOME PATHWAY IN A MOUSE MODEL OF POLYGLUTAMINE DISEASE

Hirai H., Torashima T., Koyama C., Yanagi S., Ooue M., Yamaguchi H.

56. C-MYC TRANSCRIPTIONAL SUPPRESSOR FUSE-BINDING PROTEIN INTERACTING REPRESSOR FOR CANCER GENE THERAPY

Matsushita K., Shimada H., Tomonaga T., Kano M., Saitoh H., Mamiya T., Nishimori T., Matsubara H., Nomura F., Ochiai T.

57. GENE EXPRESSION AND HOMOLOGOUS RECOMBINATION IN CYNOMOLGUS MONKEY ES CELLS WITH HELPER-DEPENDENT ADENOVIRAL VECTORS

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

58. rAAV VECTORS WITH A PROLONGED HALF-LIFE: IMPLICATIONS FOR THE IMPROVEMENT OF rAAV GENE THERAPY

Inagaki K., Ma C., Nakai H.

59. CONSTRUCTION OF AN ARTIFICIAL PROMOTER RESPONSIVE TO RADIATION

Ogawa R., Lee S., Kagiya G., Hirano H., Fukuda S., Kondo T., Kodaki T.

60. INHIBITION OF PROLIFERATION AND INVASION OF MELANOMA CELLS BY INACTIVATION OF MITF WITH LENTIVIRAL shRNA

Kido K., Sumimoto H., Asada S., Okada S., Yaguchi T., Saida T., Kawakami Y.

Oral Presentation 8 (Key Note Lecture & Abstracts 61-73)

DDS Development III

9:00~10:48, Hall B

Chairpersons: Akinobu Gotoh, Kazuhiro Ikenaka

Key Note Lecture-3: K-3

HYDRODYNAMIC GENE DELIVERY : TOWARDS ITS APPLICATION IN CLINIC

Liu D., Ph. D.

61. A DIFFERENCE OF SENSITIVITIES OF PANCREATIC CANCER CELLS TO GEMCITABINE AFTER TRANSDUCTION OF DEOXYCYTIDINE KINASE (DCK) GENE BY RETROVIRAL VECTOR

Funamizu N., Suzuki R., Watanabe M., Manome Y.

62. IDENTIFICATION OF INTEGRATION SITES OF HIV-1 PROVIRUS ;A POSSIBLE TARGET FOR THE GENE THERAPY FOR AIDS

Matsushita S., Ikeda T., Shibata J., Koito A., Yoshimura K

63. ANALYSIS OF GENE EXPRESSION PROFILE INVOLVED IN THE INNATE IMMUNE RESPONSE BY ADENOVIRUS VECTOR

Sakurai H., Igarashi K., Tashiro K., Kawabata K., Sakurai F., Kurachi S., Nakagawa S., Aisaki K., Kanno J., Mizuguchi H.

64. MOLECULAR CLONING AND FUNCTIONAL ANALYSIS OF CAR-LIKE SOLUBLE PROTEIN (CLSP)

Kawabata K., Sakurai F., Tashiro K., Osada N., Kusuda J., Hayakawa T., Mizuguchi H.

65. PREPARATION OF HIGHLY POTENT NON-VIRAL VECTORS BY COMPLEXATION OF FUSOGENIC POLYMER-MODIFIED LIPOSOMES AND LIPOPLEXES

Kono K., Sakaguchi N., Yuba E., Kojima C., Harada A., Koiwai K.

66. A NOVEL STRATEGY FOR CONSTRUCTION OF TISSUE-TARGETING SENDAI VIRUS

Kawachi M., Tamai K., Saga K., Yamazaki T., Fujita H., Shimbo T., Nishifuji K., Amagai M., Kaneda Y.

67. ADENOVIRUS — MEDIATED REIC/DKK-3 GENE TRANSFER PREVENTED MESOTHELIOM TUMOR PROGRESSIONS IN ORTHOTOPIC MICE MODEL

Kashiwakura Y., Watanabe M., Abarzua F., Sakaguchi M., Takaoka M., Tanimoto R., Nasu Y., Huh N., Kumon H.

Oncolytic Virus Therapy

10:48~12:00, Hall B

Chairpersons: Yasutomo Nasu, Tomoki Todo

68. ABCOPAL EFFECT ON METASTATIC TUMOR INDUCED BY ONCOLYTIC VIRUS OF H101 COMBINING WITH LOCAL HEATING

Hongli L.

69. TAXANES-INDUCED DNA REPAIR AND ANTI-ANGIOGENESIS ENHANCES ONCOLYTIC HERPES SIMPLEX VIRAL THERAPY FOR GASTRIC CANCER

Nakamori M., Tsuji T., Tsujimura H., Ueda K., Nakamura M., Iwahashi M., Ino Y., Todo T., Yamaue H.

70. EVALUATION OF ONCOLYTIC HERPES SIMPLEX VIRUSES EXPRESSING DIFFERENT TYPES OF IL-12 IN MOUSE PROSTATE CANCER AND NEUROBLASTOMA MODELS

Fukuhara H., Tsurumaki Y., Kitamura T., Martuza R. L., Ino Y., Todo T.

71. ANTITUMOR EFFECT OF INTRAVENOUS ADMINISTRATION OF ONCOLYTIC HERPES SIMPLEX VIRUS EXPRESSING INTERLEUKIN 12 ON SYSTEMIC METASTASES

Guan Y., Ino Y., Fukuhara H., Todo T.

72. ASSESSMENT FOR ANTITUMOR ACTIVITY OF TELOMERASE-SPECIFIC ONCOLYTIC VIROTHERAPY IN THE HYPOXIC MICROENVIRONMENT

Hashimoto Y., Teraishi F., Watanabe Y., Sakai R., Kuroda S., Kagawa S., Urata Y., Tanaka N., Fujiwara T.

73. ENHANCED ANTITUMOR EFFICACY OF TELOMERASE-SELECTIVE ONCOLYTIC ADENOVIRAL AGENT OBP-301 WITH VALPROIC ACID (VPA) IN HUMAN LUNG CANCER CELLS

Watanabe Y., Hashimoto Y., Kagawa S., Kawamura H., Nagai K., Tanaka N., Urata Y., Fujiwara T.

Oral Presentation 9 (Abstracts 74-94)

Non -Viral Vector

13:00~14:00, Hall B

Chairpersons: Yutaka Kohgo, Koichi Miyake

74. A NOVEL VECTOR OF 2-DIETHYLAMINOETHYL(DEAE)-DEXTRAN-MMA GRAFT COPOLYMER FOR NON-VIRAL GENE DELIVERY

Onishi Y., Eshita Y., Murashita A., Mizuno M., Yoshida J.

75. INTRAMUSCULAR VASCULAR ENDOTHELIAL GROWTH FACTOR 164 ELECTRO-GENE THERAPY FOR A MOUSE MODEL OF ALS

Murakami T., Shimada Y., Imada Y., Sunada Y., Nakamura A.

76. RETROGRADE SENSORY NEURON GENE TRANSFER BY SUBCUTANEOUS INJECTION OF NEGATIVELY CHARGED PULLULAN-SPERMINE/DNA POLYION COMPLEXES

Thakor D., Tabata Y.

77. IDENTIFICATION OF ANGIOGENIC AND ANTIMICROBIAL FACTOR, AG-30, AND ANALYSIS OF ITS *DE NOVO* ENGINEERED VARIANTS

Nishikawa T., Nakagami H., Maeda A., Miyazaki N., Tabata Y., Morishita R., Tamai K., Kaneda Y.

78. PROTECTIVE EFFECTS OF LIMITED IN VIVO GENE TRANSFER OF PHOSPHOLAMBAN ANTISENSE IN A CATECHOLAMINE INDUCED HYPERTROPHIC RAT HEART MODEL

Sato M., O'Gara P., Fuller S. J., Harding S. E.

DDS Development IV

14:00~15:12, Hall B

Chairpersons: Yoshikazu Sugimoto, Katsuto Tamai

79. EFFECT OF LONG-TERM ADMINISTRATION OF PI POLYAMIDE TARGETED TO THE TGF- β 1 PROMOTER FOR TREATMENT OF PROGRESSIVE RENAL DISEASES

Matsuda H., Fukuda N., Ueno T., Matsumoto K., Serie K., Sugiyama H.

80. BIOCOMPATIBLE MICELLAR NANOVECTORS ACHIEVE EFFICIENT GENE TRANSFER TO VASCULAR LESIONS WITHOUT CYTOTOXICITY AND THROMBUS FORMATION

Akagi D., Oba M., Koyama H., Nishiyama N., Miyata T., Nagawa H., Kataoka K.

81. BIOLOGICAL RESOURCES FOR GENE THERAPY AND BASIC RESEARCH IN DNA BANK, RIKEN BIORESOURCE CENTER

Murata T., Pan J., Inabe K., Hirose M., Kujime Y., Masuzaki S., Terashima M., Yamamoto M., Yamaoka S., Yamasaki T., Kimura M., Obata Y., Yokoyama K. K.

82. LIVER TOXICITY INDUCED BY AAV-DELIVERED SHORT HAIRPIN RNA (shRNA)

Unno T., Kubodera T., Murayama S., Ohira S., Li Y., Nishina K., Igari T., Eishi Y., Hirai Y., Shimada T., Yokota T., Mizusawa H.

83. A NEW RNAi STRATEGY FOR SELECTIVE SUPPRESSION OF A MUTANT ALLELE TO ANY MUTATION

Yamada H., Kubodera T., Yokota T., Mizusawa H.

84. PACLITAXEL-2'-ETHYLCARBONATE PRODRUG CANCELS P-GLYCOPROTEIN-MEDIATED CELLULAR EFFLUX TO INCREASE DRUG CYTOTOXICITY

Nawa A., Tanino T., Kajiyama H., Shibata K., Iwaki M., Kikkawa F.

Gene Therapy for Disease Model (3)

15:12~16:12, Hall B

Chairpersons: Akihiro Kume, Makoto Migita

85. EFFECT OF UCH-L1 PROTEIN ON THE α -SYNUCLEIN-INDUCED DOPAMINERGIC NEURODEGENERATION IN A MOUSE MODEL OF PARKINSON'S DISEASE

Yasuda T., Wada K., Mizuno Y., Mochizuki H.

86. THERAPEUTIC EFFECTS OF BONE MARROW TRANSPLANTATION FOR METACHROMATIC LEUKODYSTROPHY USING HOXB4 OVER-EXPRESSING CELLS

Miyake N., Miyake K., Karlsson S., Shimada T.

87. GENE THERAPY OF DUCHENNE MUSCULAR DYSTROPHY BY SPLICESOME-MEDIATED RNA TRANS-SPLICING

Yuasa K., Hijikata T.

88. LENTIVIRUS MEDIATED GENE THERAPY FOR KRABBE DISEASE

Kobayashi H., Ohashi T., Morita A., Eto Y.

89. DEVELOPMENT OF LEUKEMIA/LYMPHOMA AFTER THE LONG LATENCY PERIOD IN AN X-SCID MOUSE MODEL TREATED BY RETROVIRAL GENE THERAPY

Hanawa H., Shimada T.

DDS Development V

16:12~17:12, Hall B

Chairpersons: Yutaka Hanazono, Shinichi Miyatake

90. PHARMACOLOGICAL CONTROL OF SENDAI VIRAL TRANSGENE EXPRESSION IN CYNOMOLGUS EMBRYONIC STEM CELLS

Kishi Y., Inoue M., Shibata H., Tanaka Y., Sasaki K., Ikeda T., Hasegawa M., Hanazono Y.

91. TUMOR TRACKING AND THERAPEUTIC GENE AMPLIFICATION BY USING RETROVIRAL VECTOR-PRODUCING MESENCHYMAL STEM CELLS FOR REINFORCEMENT OF SUICIDE CANCER GENE THERAPY

Uchibori R., Okada T., Ito T., Matsushita T., Urabe M., Mizukami H., Kume A., Ozawa K.

92. SUSTAINED EXPRESSION OF PROSTACYCLIN SYNTHASE BY AN INTRAMUSCULAR INJECTION OF AN AAV VECTOR ATTENUATES OBESITY IN ZUCKER FATTY RATS

Ito T., Okada T., Mimuro J., Nakata M., Uchibori R., Urabe M., Mizukami H., Kume A., Sakata Y., Yada T., Shimada K., Ozawa K.

93. ESTABLISHMENT OF THE SYSTEM TO SUPPORT EX VIVO CELL MANIPULATION APPROPRIATE FOR CLINICAL TRIALS OF GENE THERAPY

Katano H., Sato M., Sasaki K., Kanamoto A., Yoshida K., Itoh A., Nagai S., Tahara H.

94. PRODUCTION OF CURRENT GMP-COMPLIANT VIRAL VECTORS FOR EARLY PHASE CLINICAL TRIALS

Sasaki K., Katano H., Sato M., Tahara H.