

THE SEVENTH ANNUAL MEETING

2001

THE JAPAN SOCIETY OF GENE THERAPY

PROGRAM AND ABSTRACTS

Date

July 5 (Thu), 6 (Fri), 7 (Sat), 2001

Venue

Hitotsubashi-Memory Hall

2-1-2, Hitotsubashi, Chiyoda-ku

Tokyo

GENERAL INFORMATION

Presidential Lecture

Inder M. Verma (Chairperson; Shigetaka Asano)

Gene Therapy: Medicine of the 21st Century

Presidential Address

Tsuneya Ohno (Chairperson; Masami Muramatsu)

**Impact of the Advances in Molecular Medicine on
Therapeutic Advances in Japan : The Next Decade**

International Symposium of Gene Therapy (1)

Date : July 5, 2001

Time : 13:00-15:20

Kazunari Taira (Chairperson: Shoji Tsuji)

Intracellularly active novel hybrid-ribozymes

Sunyong Kim (Chairperson: Takashi Shimada)

High Efficiency Retroviral Vectors that Contain No Viral Coding Sequences

Ven Murthy (Chairperson: Jun Yoshida,)

Apolipoprotein E-mediated Transfection and Expression of Human Low Density Lipoprotein Receptor Transgene into Hepatocytes

Thomas J Wickham (Chairperson: Izumu Saito)

Genetically Retargeted Adenovirus Vectors for Human Gene Therapy

Xi-Zhang Lin (Chairperson: Yoshikatsu Eto)

Hydrodynamics-based transfection of naked DNA into the liver through the bile duct

International Symposium of Gene Therapy (2)

Date : July 7, 2001

Time : 13:30-15:50

Matthew J. During(Chairperson: Nagahiro Saijo)

Peroral Transduction of Neuroendocrine Cells and Hepatocytes with an AAV Insulin Vector leading to Euglycemia in Diabetic Rats.

Suthat Fucharoen (Chairperson: Keiya Ozawa)

Antisense and Gene Therapy for Thalassemia

Steve Wilton (Chairperson: Yasufumi Kaneda)

The Application of Antisense Oligonucleotides in a "Gene Knock-In" Therapy for Duchenne Muscular Dystrophy

Dale Ando (Chairperson: Kenzaburo Tani)

Phase I/II study of Autologous GM-CSF Gene-modified Cancer Vaccines in subjects with Non-Small Cell Lung Cancer (NSCLC)

PhaseII Trials of a GM-CSF Gene-Transduced Prostate Cancer Cell Line Vaccine(GVAX[®]) Demonstrate Anti-Tumor Activity

Michael Perricone (Chairperson: Yutaka Kawakami)

Immunotherapy for Melanoma Using Gene Therapy Vectors Encoding Melanoma-Associated Antigens

PROGRAM

Plenary Session (Abstracts #1~8)

Day 1: July 5, 2001

New Approach & Preclinical Studies (15:30-16:50)

Chairperson: Hiromitsu Nakauchi and Yoshikazu Sugimoto

- 1 Stable γ Globin Expression by Retrovirus Vector Using Chromatin Insulator
Nishino T., Yannaki E., Tubb J., Stamatoyannopoulos G., and Emery DW.
- 2 Fiber-modified Adenovirus Vectors for Gene Therapy -Enhanced Anti-Tumor Effects and Reduced Side Effects Obtained Using Fiber-Modified Adenovirus Vectors Expressing HSVtk and the Development of a System for Targeting Adenovirus Vectors-
Mizuguchi H., and Hayakawa T.
- 3 Behavioral Recovery in a Primate Model of Parkinson's Disease by Triple Transduction of Striatal Cells with AAV Vectors Expressing Dopamine-Synthesizing Enzymes
Muramatsu S., Fujimoto K., Ikeguchi K., Shizuma N., Kawasaki K., Ono F., Shen Y., Wang L., Mizukami H., Kume A., Matsumura M., Nagatsu I., Ichinose H., Nagatsu T., Terao K., Nakano I., and Ozawa K.
- 4 In vivo Selective Expansion of Retrovirally Transduced Hematopoietic Cells in the Setting of a Clinically Applicable Nonhuman Primate Transplantation Protocol
Hanazono Y., Nagashima T., Asano T., Shibata H., Ageyama N., Ueda Y., Kume A., Terao K., Hasegawa M., and Ozawa K.

Clinical Studies (17:00-18:20)

Chairperson: Hideaki Tahara and Hiromi Kumon

- 5 A Proposed rAAV-Liver Directed Clinical Trial for Hemophilia B
Nakai H., Ohashi K., Arruda V., McClelland A., Couto L., Meuse L., Storm T., Dake M., Razavi M., Manno C., Glader B, High KA, and Kay MA.
- 6 A Clinical Study of MDR1 Gene Therapy against Breast Cancer
Sugimoto Y, Takahashi S, Nakane M, Mitsuhashi J, Tsukahara S, Nagamine T, Minowa S, Shibata H, Ito Y., Hatake K., Tsuruo T., Horikoshi N., and Aiba K.
- 7 Phase I/II Study of Adenoviral Vector Delivery of HSV-TK Gene and the Intravenous Administration of Ganciclovir in Men with Local Recurrence of Prostate Cancer after Hormonal

Therapy -A Report of the First Case-

Nasu Y, Ebara S, Arata R, Tsushima T, Thompson TC, and Kumon H.

8 Clinical Studies of Immunogene Therapy Using Autologous GM-CSF Transduced Tumor Vaccines (GVAX) for Stage IV Renal Cell Cancer : Progress Report

Tani K., Nakazaki Y., Hase H., Takahashi K., Monna M., Komine F., Kitamura R., Machida U., Ohata J., Soda Y., Watari K., Oyaizu N., Satoh N., Tojo A., Yamashita N., Maekawa T., Eriguchi M., Tomikawa S., Hanazawa K., Wakumoto Y., Kawai K., Azuma M., Hamada H., Okumura K., Kakizoe T., Akaza H., Fujime M., Mulligan R., Clift S., Ando D., Sherwin S., and Asano S.

Oral Session 1 (Abstracts #9~15)

Day 2: July 6, 2001

Cancer Gene Therapy(9:30-10:30)

Chairperson: Yoshiro Niitsu, and Takenori Ochiai

9 Improvement of Carcinoembryonic Antigen-Specific Suicide Gene Therapy in the Orthotopic Colon Cancer Model with Liver Metastases

Ueda K., Iwahashi M., Nakamori M., Nakamura M., Matsuura I., and Yamaue H.

10 Prolonged Survival of Multiple Liver Metastases Model Mice by Intravenous Administration of Oncolytic Adenovirus with CEA Promoter Controlled E1A and 55K-Deleted E1B

Sagawa T., Takahashi M., Sumiyoshi T., Sato T., Sato Y., Iyama S., Fukaura J., Yamada Y., Okamoto T, Oku T., and Niitsu Y.

11 E1A Gene Therapy for Treatment of Local and Metastatic Cancer

Anklesaria P, Paul R, Reynolds T, Heald A, Carey M, Galbraith T, Mebel E, Zhang S, Huang L, Ueno N, and Hung M-C.

12 Diagnosis and Treatment of Esophageal Cancer through p53 Molecule as a Target

Shimada H., Matsubara H., Gunji Y., and Ochiai T.

Cancer Gene Therapy: New Approach (10:30-11:15)

Chairperson: Noriyuki Kasahara and Osam Mazda

13 Development of Novel Vectors for Anti-Angiogenic Gene Therapy of Cancer

Shichinohe T., Logg CR., Soifer H., Tai CK., Logg A., Cannon PM., Anderson WF., and Kasahara N.

14 Hydrodynamics-Based Immuno-Gene Therapy of Cancer

Itokawa Y., Ueda Y., Fuji N., Cui F., Asada H., Kishida T., Satoh E., Hirai H., Fujiwara H., Imanishi J., Yamagishi H., and Mazda O.

15 Potential Applicability of Tumor-Targeting Peptide Vector and RNA Interference for Cancer Gene Therapy

Aoki Y., Cioca DP., Kamiya J., and Kiyosawa K.

Oral Session 2 (Abstracts #16~24)

Day 2: July 6, 2001

Gene Therapy of Congenital Disorders (14:50-15:40)

Chairperson: Yukio Sakiyama and Torayuki Okuyama

16 Development of AAV Vector Mediated Enzyme Replacement Therapy for Fabry Disease

Takahashi H., Hirai Y., Takahashi K., Sakuraba H., Kase R., and Shimada T.

17 Feasibility Study Using SCID Repopulating Cells in Hematopoietic Stem Cell Gene Therapy for Adenosine Deaminase Deficiency

Yoshida J., Ichimura T., Onodera M., Kaneko S., Ariga T., and Sakiyama Y.

18 Rapid and Long-Term Pathological Correction of Corneal Clouding in Mice with Mucopolysaccharidosis Type VII Using Novel Vector Administration Procedure "Lamellar Keratotomy"

Kamata Y., Azuma N., Kosuga M., O'hira A., Tanabe A., Sasaki K., Yamada M., and Okuyama T.

19 Recombinant Sendai Virus-Mediated Gene Transfer into Retinal Tissue of Adult Rats

Ikeda Y., Yonemitsu Y., Ishibashi T., Ueno H., Kato A., Nagai Y., Fukumura M., Inomata H., Hasegawa M., Sueishi K.

20 Improved Exon Skipping in the MDX Mouse Model of DMD by Refining the Design of Antisense Oligonucleotides

Mann C., Honeyman K., Fletcher S., Lloyd F., and Wilton S.

Gene Therapy of Acquired Disorders (15:50-16:50)

Chairperson: Akihiro Kume and Fumio Endo

21 AAV Vector-Mediated Delivery of GDNF Gene in the Striatum Rescues Dopaminergic Neuron

Degeneration and Ameliorates Behavioral Impairment in a Rat Model of Parkinson's Disease

Wang L, Muramatsu S, Lu Y, Ikeguchi K, Fujimotol K, Okada T, Mizukami H, Hanazono Y, Kume A, Urano F, Ichinose H., Nagatsu T., Nakano I., and Ozawa K.

22 Cardio-Protective Effect of HGF Gene Transfer into Myocardium of Cardiomyopathic Hamster (Bio 14.6) : Novel Gene Therapy Strategy for Cardiomyopathy

Hashiya N, Aoki M, Taniyama Y, Yamasaki K, Makino H, Morishita R, Kaneda Y, and Ogihara T.

23 Combination Gene Therapy of Angiotensin-1 with VEGF for Critical Limb Ischemia

Yamauchi A., Ito Y., Morikawa M., Huang J.H., Abe T., and Hamada H.

24 Preliminary Results from Japan Trial to Prevent Restenosis after Angioplasty or Stent Using E2F Decoy ODN as Gene Therapy (J-PRAS)

Makino H., Aoki M., Yamasaki K., Hashiya N., Shimizu H., Morishita R., Kaneda Y., and Ogihara T.

Oral Session 3 (Abstracts #25~36)

Day 3: July 7, 2001

Gene Therapy Targeting Hematopoietic Stem Cells (9:30-10:30)

Chairperson: Masatoshi Tagawa and Mamoru Hasegawa

25 Reversible Transduction of Hematopoietic Stem/Progenitor Cells with a Differentiation-blocking Gene for Their ex vivo Expansion

Muramatsu M., Hanazono Y., Ogasawara Y., Okada T., Mizukami H., Kume A., Mizoguchi H., and Ozawa K.

26 In vivo Expansion of Transduced Murine Hematopoietic Cells with Selective Amplifier Genes

Kume A., Koremoto M., Xu R., Okada T., Mizukami H., Hanazono Y., Ueda Y., Nagashima T., Hasegawa M., and Ozawa K.

27 Establishment of the Efficient Gene Transfer System into Murine Hematopoietic Stem Cells Using a VSV-G Pseudo-type Retroviral Vector GCDNsap(MSCV)

Kaneko S, Onodera M, Kaneda M, Nagawasa T, and Nakauchi H.

28 Genetic Engineering of CD34⁺ Hematopoietic Stem/Progenitor Cell-Derived Dendritic Cells Using a Lentiviral Vector

Sumimoto H, Miyoshi H, Tsuji T, Okamoto S, Ikeda Y, Takahashi T, and Kawakami Y.

Lentivirus Vector (10:30-11:30)

Chairperson: Nobuhiko Emi and Mahito Nakanishi

- 29** Gene Transfer to Human Leukemia Cells, Lymphocytes and Hematopoietic Stem Cells with the Third Generation Lentiviral Vector
Soda Y., Bai Y., Izawa K., Sasaki E., Nakazaki Y., Tanabe T., Iseki T., Tojo A., Miyoshi H., Tani K., and Asano S.
- 30** High-Level and Long-Term Transgene Expression in Cynomolgus Monkey Embryonic Stem Cells with a Simian Immunodeficiency Virus Vector
Asano T, Hanazono Y, Ueda Y, Nagashima T, Muramatsu S, Nakano I, Kume A, Suzuki Y, Kondo Y, Suemori H., Nakatsuji N., Hasegawa M., Ozawa K., and Harii K.
- 31** Production of High-Titer Lentiviral Vectors Using Adenovirus-HIV Hybrid Expression Vectors
Miyake K., Suzuki N., Shimada T.
- 32** Pseudotyping of SIVagm-Based Lentiviral Vectors with Envelope Proteins from Paramyxovirus
Kobayashi M., Huang K., Iida A., and Hasegawa M.

Sendai Virus & Adenovirus (11:30-12:30)

Chairperson: Shinichi Miyatake and Takao Hayakawa

- 33** Persistent Expression of the Gene Transferred by Sendai Virus Vector
Tokito F., Ueda Y., Nagai Y., and Hasegawa M.
- 34** Development of a Novel Type of Sendai Virus Vector Lacking All of the Envelope Glycoprotein Genes
Kitazato K., Iida A., Hirata T., Hou XG., Zhu YF., Kato A., Nagai Y., and Hasegawa M.
- 35** Adenovirus Vectors Containing Chimeric Type 5 and Type 35 Fiber Proteins Exhibit Expanded Tropism and Increase the Size Limit of Foreign Genes
Mizuguchi H., and Hayakawa T.
- 36** Single Adenovirus Vector Containing a Tetracycline-Controllable Expression System Allows Regulated Transgene Expression in vitro and in vivo -Tet-Off System Shows Higher Regulation Than Tet-On System-
Mizuguchi H., and Hayakawa T.

Oral Session 4 (Abstracts #37~40)

Day 3: July 7, 2001

Novel Approach to Gene Therapy (16:00-17:00)

Chairperson: Hisamaru Hirai, and Toya Ohashi

- 37** Identification of Intermediates for rAAV Vector Genome Concatemerization and Integration in Hepatocytes in vivo: Evidence for Double-Stranded Linear Monomer Genomes not Circles as Reactive Intermediates

Nakai H., Fuess S., Storm TA., Meuse L., and Kay MA.

- 38** MR Imaging of Transgene Expression from a HSV-1 Amplicon Vector

Kanbara H., Ichikawa T., Hoegemann D., Saeki Y., Weissleder R., Chioocca EA., Basilion JP., Tamiya T., and Ohmoto T.

- 39** Human Proteins Responsible for Mitochondrial Fusion

Endo H., Ueno E., Hamamoto T., and Kagawa Y.

- 40** Design Considerations, Manufacturing, and Analytical Aspects of DNA-Based Gene Therapeutics

Breul A.

Poster Session 1 (Abstracts #41~86)

Day 2: July 6, 2001 (17:00-18:30)

Gene Targeting for Aquired Disease

- 99 P2-01 Sendai Virus Mediated Gene Transfer of Glial Cell Line-Derived Neurotrophic Factor Rescues from Ischemic Brain Injury in Gerbils

Shirakura M., Fukumura M., Maeda M., Inoue M., Fujikawa S., Komaba S., Washizawa K., Hasegawa M., and Yoshikawa Y.

- 76 P2-02 Contribution of Microglia / Macrophages to Expansion of Focal Cerebral Ischemia Using GFP Bone Marrow Transplantation Mice

Urabe T., Tanaka R., Mochizuki H., Migita M., Shimada T., and Mizuno Y.

- 77 P2-03 Intracranial Transplantation of Bone Marrow Stromal Cells from Transgenic Mice Expressing Enhanced Green Fluorescent Protein

Tanaka R., Mochizuki H., Urabe T., Yamada M., Migita M., Shimada T., and Mizuno Y.

- 78 P2-04 Intracerebral Grafting of Genetically Modified Progenitor Cell Using High-Titer Pseudo-Typed Retrovirus Vector

Suzuki A., Mochizuki H., Obi K., Urabe T., Onodera M., and Mizuno Y.

79 P2-05 Contribution of Microglia / Macrophage Accumulation and Dopaminergic Cell Death Using MPTP-Treated EGFP Bone Marrow Transplantation Mice

Furuya T., Mochizuki H., Hayakawa H., Migita M., Shimada T., and Mizuno Y.

75 P2-06 Anti-Apoptotic Gene Therapy in Parkinson's Disease

Mochizuki H., Hayakawa H., Migita M., Miura M., Shimada T., and Mizuno Y.

28 P2-07 P21 Gene Transfer into Rheumatoid synovitis Suppressed the Articular Cartilage Degradation

Tomita T., Takahi K., Tomita N., Morishita R., Nakase T., Kaneda Y., and Yoshikawa H.

117P2-08 Angiostatic Gene Therapy of Rheumatoid Arthritis

Kato K., Miyake K., Suzuki N., Igarashi T., Nagashima M., Yosino S., and Shimada T.

118P2-09 Gene Transfer into Synovium by Electroporation in vivo

Ohashi S., Kubo T., Kishida T., Takahashi K., Arai Y., Ikeda T., Terauchi R., Hirasawa Y., Imanishi J., and Mazda O.

84 P2-10 Cell Therapy for Diabetes with Genetically Engineered Preadipocytes

Yamasaki K., Sasaki T., Nemoto M., Fujimoto K., Sakai K., Eto Y., and Tajima N.

72 P2-11 HST-1/FGF-4 Serves as a New Paradigm for Gene Therapy Applications to Testicular Damage

Hirai K., Ochiya T., Yamamoto H., Sasaki H., Sakamoto H., Kubota Y., Kakizoe T., and Terada M.

49 P2-12 Introduction of DNA Enzyme for Egr-1 into Tubulointerstitial Fibroblasts by Electroporation Reduced

Interstitial α -Smooth Muscle Actin Expression and Fibrotic Changes in Unilateral Ureteral Obstruction Rats

Isaka Y., Nakamura H., Tsujie M., Imai E., and Hori M.

92 P2-13 Gene Therapy of Bone Defects Using Genetically Modified Primary Bone Marrow Stromal Cells

Sugiyama O., Orimo H., Suzuki S., and Shimada T.

126P2-14 Development of a DNA Vaccine against B Virus : Its Evaluation in Japanese Monkeys

Hirano M., Nakamura S., Mitsunaga F., Okada M., Shimizu K., Bennett A., and Eberle R.

18 P2-15 Anti-Pseudomonas Vaccine Using Dendritic Cells Expressing Macrophage-Derived Chemokine

Kikuchi T., and Crystal R.G.

Development of New Viral Vectors

100P2-16 A New Design of Selective Amplifier Genes with an Erythropoietin Receptor-Based Molecular Switch for Controlled Expansion of Gene-Modified Hematopoietic Cells

Nagashima T., Ueda Y., Hanazono Y., Kume A., Shibata H., Ageyama N., Komatsu N., Terao K., Ozawa K., and Hasegawa M.

95 P2-17 Improvement of Retrovirus-Mediated Gene Transfer into Tumor Cells

Tsujinoue H., Nakatani T., Yoshiji H., Akahane T., Fukui H., Ikenaka K., and Kuriyama S.

55 P2-18 Reversible and Irreversible Silencing of Retrovectors in vivo

Inada T., Furuta R.A., and Fujisawa J.

30 P2-19 Two Elements in the Upstream Control Region of the SFFVp LTR Cooperatively Regulate the Efficient Retroviral Expression in Hepatocytes and Hematopoietic Cells

Ohnishi N., Itoh K., Itoh Y., Okanoue T., and Fujita J.

47 P2-20 The Retroviral Vector GCsap with Murine Stem Cell Virus LTR Allows High and Continued Expression of the Transgene by Human Peripheral T Lymphocytes Engrafted in Non-Obese Diabetic/Severe Combined Immunodeficiency Mice

Kaneko S., Onodera M., Kaneda M., Nagawasa T., and Nakauchi H.

9 P2-21 Modification of the Host Range Property of the Ecotropic MLV Vector by Insertion of a Peptide Ligand into the VRA of Envelope Protein

Katane M., Takao E., Kubo Y., and Amanuma H.

54 P2-22 Removal of Inhibitory Substances by Using Recombinant Fibronectin CH-296 Plates Enhances Retroviral Transduction Efficiency of CD34⁺CD38⁻ Bone Marrow Cells

Chono H., Yoshioka H., Ueno M., and Kato I.

122P2-23 Inhibitory Effect of Central Polypurine Tract on Titers of HIV-1 Vectors

Sakuma R., Kobayashi N., Ae K., and Kitamura Y.

83 P2-24 Successful in situ Delivery of Sendai Virus-Based Vectors to Rat Parenchymal Hepatocytes by Isolated Hepatic Perfusion

Fujita S., Eguchi A., Inoue Y., Ito T., Matsuda H., Hasegawa M., and Nakanishi M.

44 P2-25 Efficient Adenovirus Vector-Mediated Gene Transfer to Dog Liver by Liver Asanguineous Perfusion

Takeuchi K., Okamoto T., Shiba H., Futagawa Y., Nakamura J., Takeda A., Aoki T., Ohashi T., and Eto Y.

51 P2-26 Efficient Repetitive Gene Delivery to Skeletal Muscle Using Recombinant Adenovirus Vector Containing the Coxsackievirus and Adenovirus Receptor cDNA

Kimura E., Maeda Y., Arima T., Yamashita S., Nishida Y., Uchida Y., and Uchino M.

33 P2-27 Stability of Adenovirus Vector during Transport and Delivery by the Manufacturer

Murata T., Watanabe S., Kujime Y., Hirose M., Ugai H., Nakata-Tsutsui H., Suzuki E., and Yokoyama K.K.

64 P2-28 Detection of Single-Mutation of Human P53-Recombinant Adenovirus in 293 Cells by Taqman Assay

Ugai H., Suzuki E., Watanabe S., Kujime Y., Tsutsui H., Murata T., Hamada H., and Yokoyama K.K.

116P2-29 Production of Recombinant Adenovirus (rAd) Carrying All Genome of Adeno-Associated Virus Type 2 (AAV) in the Antisense - Rep Expressed 293 Cells

Hirai Y., Takahashi H., Takahashi K., and Shimada T.

113P2-30 Adeno-Associated Virus Type3-Based Vector Efficiently Transduces Both Slow and Fast Muscle Fibers

Yoshimura M., Muramatsu S., Mizukami H., Kanazawa I., Nakano I., and Ozawa K.

106P2-31 A Novel Packaging Cell Line for Adeno-Associated Virus Vector Production Based on Simultaneous Induction of Rep and Cap Expression Mediated by Mutant and Wild-Type loxP Sequences with Cre Recombinase

Mizukami H., Okada T., Mochizuki S., Ogasawara Y., Matsushita T., Urabe M., Hanazono Y., Kume A., and Ozawa K.

39 P2-32 Development and Characterization of an Antisense-Mediated Regulation System for Adeno-Associated Virus Vector Production with Introduction of Cre Recombinase

Okada T., Mizukami H., Urabe M., Matsushita T., Hanazono Y., Kume A., Tobita K., and Ozawa K.

90 P2-33 Rescue of a Recombinant AAV Vector from the Vector-Transduced HeLa Cells

Mori S., Takeuchi T., and Kanda T.

16 P2-34 Episomal Recombinant Adeno-Associated Virus Vector Genomes are Primarily Responsible for Stable Liver Transduction in vivo

Nakai H., Storm T.A., Yant S.R., Fuess S., Meuse L., and Kay M.A.

85 P2-35 Successful Transduction of Mammalian Astrocytes and Oligodendrocytes by “Pseudotype” Baculovirus Vector

Kobayashi H., Watabe K., Tani H., Matsuura Y., Barsoum J., Ohashi T., and Eto Y.

Development of Nonviral Vectors

27 P2-36 Development of a Novel Gene Transfer Method to the Kidney Based on HVJ-Immunoliposome

Tomita N., Morishita R., Higaki J., Ogihara T., and Kaneda Y.

67 P2-37 Cellular and Molecular Dynamics of Cationic Liposomes in Human Glioma Cells

Nobayashi M., Mizuno M., Okamoto K., Tsugawa T., and Yoshida J.

70 P2-38 An Improved Polyethylenimine (PEI)/DNA Vector Formulation that Exhibits Highly Efficient in vitro and in vivo Gene Delivery

Yamashita M.

109P2-39 Conformational Change of DNA by Use of Aluminium Hydroxide

Matauzawa Y., and Emi N.

114P2-40 Molecular Study of Oligonucleotide-Mediated Gene Repair

Ikejima M., Nakajima E., Watanabe A., and Shimada T.

125 P2-41 Development and Manufacturing of Plasmid DNA Based Drugs

Müller M.

7 P2-42 Simple Method of Extraction and Purification for High Purity and Large Scale of Plasmid DNA~TFF (Tangenital Flow Filtration) System

Ishida A., Sekiguchi K., Yasuzumi F., Arakaki S., and Nagamine M.

71 P2-43 Atelocollagen-Based Gene Delivery System : Biophysical Characteristics and Transfection Ability in vitro

Honma K., Ochiya T., Nagahara S., Sano A., Itoh H., Miyata T., and Terada M.

52 P2-44 High Efficiency of Gene Transfer to Renal Cell Carcinoma Cells by Using in vitro Electroporation
Hongo F., Mizutani Y., Sato N., Ushijima S., Kanazawa M., Nakanishi H., Nakamura T., Nomoto T., Nakao M., Tamura T., Sakata T., and Miki T.

65 P2-45 Advanced Gene Expression into Fetal Mouse Skin by Intrauterine Gene Transfer Using Microbubble-Enhanced Ultrasound
Endoh M.P., Morishita R., and Kaneda Y.

10 P2-46 Development of Ultrasound Device for Gene Delivery
Manome Y., Furuhata H., and Ohno T.

Poster Session 2 (Abstracts #87~136)

Day 3: July 7, 2001 (17:10-18:40)

Cancer Gene Therapy

88 P3-01 Efficient Cancer-Selective Gene Transfer to Hepatocellular Carcinoma in a Rat Model Using Adenovirus Vector with Tumor Embolic Agents
Shiba H., Okamoto T., Futagawa Y., Nakamura J., Takeuchi K., Takeda A., Aoki T., Ohashi T., and Eto Y.

32 P3-02 Recombinant Immunogene Approach Using Humanized Single Chain Antibody
Suzuki M., Takayanagi A., Chen J., and Shimizu N.

69 P3-03 Tumor-Targeted Gene Delivery by Fiber-Mutant Adenoviral Vectors
Nakamura T., Kawano Y., Ito Y., Sato K., and Hamada H.

2 P3-04 Gene Therapy Targeting for Hepatocellular Carcinoma: Selective and Enhanced Gene Expression Regulated by a Hypoxia-Inducible Enhancer Linked to α -Fetoprotein Promoter
Ido A., and Tsubouchi H.

38 P3-05 Development of Gene Therapy for Hormone-Refractory Prostate Cancer
Furuhata S., Ide H., Iwamoto T., Yoshida T., and Aoki K.

119 P3-06 Glioma-Specific p53 Gene Expression by Adenovirus Vector
Kurihara H., and Takeuchi T.

34 P3-07 Transcriptional Activation of the Thyroglobulin Promoter Directing Suicide Gene Expression by Thyroid Transcription Factor-1 in thyroid Cancer Cells
Shimura H., Furuya F., Suzuki H., Miyazaki A., Ohta K., Haraguchi K., Endo T., and Onaya T.

12 P3-08 Suppression of Mammary Carcinoma Growth in vivo by Electro-Genes Therapy Using HSV-tk/GCV System
Shibata M., Morimoto J., and Otsuki Y.

22 P3-09 Enhancement of Suicide Cancer Gene Therapy Using a Novel Histone Deacetylase Inhibitor

Yamamoto S., Takao S., Morishita R., Aikou T., and Kaneda Y.

131 P3-10 Experimental Gene Therapy for Prostate Cancer Cell Line DU145 Using Adenovirus-Mediated Transfer of Cytosine Deaminase Gene and Uracil Phosphoribosyltransferase Gene with 5-Fluorocytosine
Miyagi T., Koshida K., Hori O., Katoh H., Konaka H., Kitagawa I., Mizokami A., Uchibayashi T., Ogawa S., Hamada H., and Namiki M.

132 P3-11 Chemosensitizing Gene Therapy for Bladder Cancer Using Adenovirus-Mediated Transfer of Uracil Phosphoribosyl Transferase Gene with 5-Fluorouracil
Kaku H., Nasu Y., Ebara S., Tsushima T., and Kumon H.

112 P3-12 Gamma Ray Irradiation Combined with AAV-Mediated Suicide Gene Therapy Results in Regression of Human Head and Neck Cancer Xenografts
Kanazawa T., Mizukami H., Okada T., Hanazono Y., Kume A., Nishino H., Ichimura K., and Ozawa K.

63 P3-13 Induction of Antitumor Immunity Using a Replication-Conditional HSV Mutant for the Treatment of Liver Metastasis
Endo T., Toda M., Watanabe M., Iizuka Y., Kubota T., Kitajima M., and Kawakami Y.

135 P3-14 Polyvalent DNA Vaccination Using in vivo Electroporation System
• • • A Powerful Tool for Cancer Immunotherapy • • •
Yamada M., Wada H., Sekimoto M., Monden M., Morishita R., and Kaneda Y.

86 P3-15 Anti-Tumor Immunity Induced by ex vivo Retrovirus Vector-Mediated Expression of CD40 Ligand Against Bladder Cancer
Kimura T., Ohashi T., Kiyota H., Eto Y., and Ohishi Y.

29 P3-16 Cancer Vaccine Therapy Using Dendritic Cells (DCs) Adenovirally Transduced with the Tumor Antigen Gene - Comparative Analysis to DCs Pulsed with the Immunodominant Peptide
Nakamura M., Iwahashi M., Nakamori M., Ueda K., Matuura I., Ojima T., and Yamaue H.

46 P3-17 Transfusion of Donor Lymphocytes Transduced with the Herpes Simplex Thymidine Kinase Gene into the Patients with Relapsed Leukemia after Allogeneic Hematopoietic Stem Cell Transplantation
Onodera M., Kaneko S., Kojima H., Hasegawa Y., Fukushima T., Shumazaki R., Matsui A., Nagawasa T., and Nakauchi H.

24 P3-18 Expression of Membrane-Type Fas Ligand on Murine Lung Carcinoma Cells Induces T-Cell Dependent and Independent Anti-Tumor Immunity in Inoculated Hosts
Tada Y., Wang J-O., Seimiya M., Takiguchi Y., Kuriyama T., Takenaga K., Sakiyama S., and Tagawa M.

23 P3-19 Novel Immunotherapy for Peritoneal Dissemination of Murine Colon Cancer with Macrophage Inflammatory Protein-1 β Mediated by a Tumor-Specific Vector, HVJ-Cationic Liposomes
Miyata T., Yamamoto S., Sakamoto K., Morishita R., and Kaneda Y.

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