Program

Keynote Lecture (Joint session with SITC)
キーノートレクチャー（SITC ジョイントセッション）

July 25(Fri.)　11 : 30 ～ 12 : 30　1st venue

座長：西川 博嘉（Hiroyoshi Nishikawa　Division of Cancer Immunology, Research Institute/ Exploratory Oncology Research and Clinical Trial Center (EPOC), National Cancer Center / Department of Immunology, Nagoya University Graduate School of Medicine / Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology (CCII) Graduate School of Medicine, Kyoto University）

玉田 耕治（Koji Tamada　The Research Institute for Cell Design Medical Science, Yamaguchi University / Yamaguchi University Graduate School of Medicine, Department of Immunology）

Advancing CAR T Cell Therapy for Brain Tumors

◯Giedre Krenciute

Department of Bone Marrow Transplantation & Cellular Therapy Comprehensive Cancer Center St. Jude Graduate School of Biomedical Sciences

Cancer immunotherapy that overcomes tumor heterogeneity

◯Hiroaki Ikeda

Department of Oncology, Nagasaki University Graduate School of Biomedical Sciences

Special Symposium
Industry-Academia-Government collaboration and more
産官学＋α連携シンポジウム

July 24(Thu.)　15 : 00 ～ 18 : 10　1st venue

座長：鳥越 俊彦（Toshihiko Torigoe　Sapporo Medical University）

赤塚 美樹（Yoshiki Akatsuka　Department of Immunology, Graduate School of Medicine, Nagoya University）

SS-1　Our experience of clinical development
臨床開発の経験

◯Yoshihiro Miyahara

Mie University Graduate School of Medicine

SS-2　Endeavor for the research and development of next-generation CAR-T cell therapy

◯Koji Tamada

Department of Immunology, Yamaguchi University Graduate School of Medicine

SS-3　What is the Japan Agency for Medical Research and Development (AMED)?

◯Yasunori Kouchi

Japan Agency for Medical Research and Development

SS-4　The Future of Cell and Gene Therapy: The PMDA Perspective

◯Yoshiaki Maruyama
Office of Cellular and Tissue-based Products, Pharmaceuticals and Medical Devices Agency

SS-5　Establishment of Otsuka global satellite drug discovery organization through horizontal alliance

◯Toshiki Sudo
Otsuka Pharmaceutical Co., Ltd.

SS-6　How to build New coleveraging academic discovery

◯Takashi Futami
AN Venture Partners

■ Symposium 1 (Joint session with SITC)
Treatment of solid tumors with gene-modified immune cells
シンポジウム 1（SITC ジョイントセッション）

July 25(Fri.)　13：35 ～ 15：40　1st venue

座長：籠谷 勇紀（Yuki Kagoya　Division of Tumor Immunology, Institute for Advanced Medical Research, Keio University）
渡邊 慶介（Keisuke Watanabe　Division of Cancer Immunology National Cancer Center）

SY1-1　CAR T: Present and Future Prospects

◯Carl June
Department of Pathology and Laboratory Medicine, University of Pennsylvania / Perelman School of Medicine, Abramson Cancer Center

SY1-2　CAR-T therapy targeting epidermal growth factor receptor (EGFR)

◯Koichi Hirabayashi
Department of Pediatrics, Shinshu University School of Medicine

SY1-3　The development of a novel chimeric antigen receptor (CAR) T-cell therapy platform targeting solid tumors

◯Keishi Adachi, Koji Tamada
Department of Immunology, Yamaguchi University Graduate School of Medicine

SY1-4　FAP-Targeted mRNA-based CAR-T Cell Therapy for Solid Tumor

◯Sikun Meng[1)], Tomoaki Hara[1)], Shotaro Tatekawa[2)], Tetsuya Sato[3)], Yoshiko Saito[1)], Yasuko Arao[1)], Hidetoshi Eguchi[4)], Kazuhiko Ogawa[2)], Yutaka Miura[5)], Hideshi Ishii[1)]
[1)] Department of Medical Data Science, Osaka University Graduate School of Medicine,
[2)] Department of Radiation Oncology, Osaka University Graduate School of Medicine,
[3)] Biomedical Research Center, Faculty of Medicine, Saitama Medical University,
[4)] Department of Gastroenterological Surgery, Osaka University Graduate School of Medicine,
[5)] Laboratory for Chemistry and Life Science, Institute of Integrated Research, Institute of Science Tokyo

■ Symposium 2 (Joint session with SITC)
Cutting-edge technologies in spatial analysis and single cell omics analysis
シンポジウム 2（SITC ジョイントセッション）

July 25(Fri.)　9 : 20 ～ 11 : 25　1st venue

座長：坂田 麻実子（Mamiko Sakata-Yanagimoto　Department of Hematology, Institute of Medicine University of Tsukuba)
廣橋 良彦（Yoshihiko Hirohashi　Department of Pathology, Sapporo Medical University)

SY2-1　Spatial multi-omics reveal humoral immunity niches associated with tertiary lymphoid structures in pancreatic cancer.

◯Dimitrios N. Sidiropoulos
Department of Oncology, Johns Hopkins University School of Medicine

SY2-2　Spatial omics analyses for revealing molecular mechanisms of lung cancer progression

◯Ayako Suzuki
Graduate School of Frontier Sciences, The University of Tokyo

SY2-3　Spatial Omics Analyses of Ovarian Cancer

◯Koji Okamoto
Teikyo University, Advanced Comprehensive Research Organization

SY2-4　Unveiling Lymphoma Microenvironment Heterogeneity through Single-Cell and Spatial Multi-Omics Analysis

◯Yoshiaki Abe
Institute of Medicine, University of Tsukuba

■ Symposium 3 (Joint session with SITC)
Antibody-based cancer therapy: Immune checkpoint inhibitors, antibody-drug conjugates and bispecific antibodies
シンポジウム 3（SITC ジョイントセッション）

July 26(Sat.)　13 : 20 ～ 15 : 25　1st venue

座長：本橋 新一郎（Shinichiro Motohashi　Graduate School of Medicine Medical Immunology, Chiba University)
鈴木 弘行（Hiroyuki Suzuki　Department of Chest Surgery Fukushima Medical University)

SY3-1　Enhancing myeloid antitumor immunity with Fc-engineered antibodies

◯Juan C. Osorio
Department of Medicine, Memorial Sloan Kettering Cancer Center

SY3-2　Design, analysis, and prodrugation of multispecific antibodies for cancer therapeutics

◯Ryutaro Asano
Department of Biotechnology and Life Science, Graduate School of Engineering, Tokyo University of Agriculture and Technology

SY3-3 Reviewing the Development of DXd ADC Technology & the Latest Clinical Results

◯Akiko Zembutsu
Discovery Reaserch Laboratories, R&D Division, Daiichi Sankyo Co., Ltd.

SY3-4 Development Status of Immune Checkpoint Inhibitors

◯Shigehisa Kitano
Department of Advanced Medical Development, The Cancer Institute Hospital of Japanese Foundation for Cancer Research (JFCR)

▌Symposium 4
The potential of immunotherapy for biliary tumors
シンポジウム 4
胆道系腫瘍に対する免疫療法の可能性

July 25(Fri.)　15 : 45 ～ 17 : 20　1st venue

座長：江畑 智希（Tomoki Ebata　Division of Surgical Oncology, Department of Surgery, Nagoya University Graduate School of Medicine）
門脇 則光（Norimitsu Kadowaki　Department of Internal Medicine, Division of Hematology, Rheumatology and Respiratory Medicine, Faculty of Medicine, Kagawa University）

SY4-1 Immune Microenvironment of Biliary Tract Cancers

◯Shogo Kumagai
Division of Cancer immunology, Research Institute, National Cancer Center

SY4-2 Development of SynNotch-Regulated Anti-Claudin18.2 CAR T Cells to Overcome the Immunosuppressive Microenvironment in Biliary Tract Cancers

◯Reona Sakemura
Division of Hematology, Mayo Clinic

SY4-3 Current status of immune checkpoint inhibitor therapy for biliary tract cancers

◯Takashi Mizuno, Shunsuke Onoe, Nobuyuki Watanabe, Mihoko Yamada, Shoji Kawakatsu, Junpei Yamaguchi, Masaki Sunagawa, Taisuke Baba, Tomoki Ebata
Division of Surgical Oncology, Department of Surgery, Nagoya University Graduate School of Medicine

▌Educational Lecture 1
教育講演 1

July 25(Fri.)　8 : 10 ～ 8 : 40　1st venue

座長：池田 裕明（Hiroaki Ikeda　Department of Oncology, Nagasaki University Graduate School of Biomedical Sciences）

EL-1 Next-generation cancer immunotherapy

◯Mitsuru Miyata
Miyata Institute of Technologies

Educational Lecture 2
教育講演 2

July 25(Fri.)　8：40 ～ 9：10　1st venue

座長：三森 功士（Koshi Mimori　Kyushu University Beppu Hospital）

EL-2　Antibody Chemistry: from basic concept to next generation biomedicine

◯Kohei Tsumoto
The University of Tokyo

Educational Lecture 3
教育講演 3

July 25(Fri.)　8：10 ～ 8：40　2nd venue

座長：金子 新（Shin Kaneko　Center for iPS Cell Research and Application, Kyoto University）

EL-3　Current status and perspectives of cell therapy and immunotherapy for hematological cancers

◯Naoki Hosen
Department of Hematology and Oncology, The University of Osaka Graduate School of Medicine

Educational Lecture 4
教育講演 4

July 25(Fri.)　8：40 ～ 9：10　2nd venue

座長：高橋 義行（Yoshiyuki Takahashi　Department of Pediatrics, Nagoya University Graduate School of Medicine）

EL-4　Tumor Immune Microenvironment: From Fundamentals to Cutting-Edge Insights

◯Shohei Koyama
National Cancer Center Research Institute

Educational Lecture 5
教育講演 5

July 25(Fri.)　8：10 ～ 8：40　3rd venue

座長：大谷 直子（Naoko Ohtani　Osaka Metropolitan University）

EL-5　Extraction of spatial information from tumor tissue

◯Shumpei Ishikawa
Graduate School of Medicine, The University of Tokyo

▌Educational Lecture 6
教育講演 6

July 25(Fri.)　8：40 ～ 9：10　3rd venue

座長：本橋 ほづみ（Hozumi Motohashi　Department of Medical Biochemistry, Tohoku University Graduate School of Medicine/ Department of Gene Expression Regulation, Institute of Development, Aging and Cancer, Tohoku University）

EL-6　Tumor immunology and metabolism

◯Kenji Chamoto
Center for Cancer Immunology and Cancer Immunotherapy, Kyoto University

▌Symposium organized by the Academic Committee
Cancer immunology from a new perspective
学術委員会・学術総会企画委員会特別企画
新しい角度からのがん免疫学

July 26(Sat.)　8：50 ～ 10：50　1st venue

座長：藤井 眞一郎（Shin-ichiro Fujii　RIKEN Center for Integrative Medical Sciences Laboratory for Immunotherapy）
垣見 和宏（Kazuhiro Kakimi　Department of Immunology, Kindai University Faculty of Medicine）

AC-1　Immune Activation and Application to RNA Vaccines Using Nanoparticles Based on Vitamin E-Scaffolded Lipids

◯Hidetaka Akita
Graduate School of Pharmaceutical Sciences & Faculty of Pharmaceutical Sciences, Tohoku University

AC-2　Decoding Cancer Immunopathology through RNA Modomics

◯Akiko Ogawa
Dept. Modomics Pharmacology, Graduate School of Pharmaceutical Sciences, Tohoku University

AC-3　Immune regulation by dendritic cell - regulatory T cell crosstalk and tumor microenvironment

◯Sayuri Yamazaki
Department of Immunology, Nagoya City University Graduate School of Medical Sciences

AC-4　Development of a machine learning model for predicting protein binding affinities toward immune receptor protein design

◯Rui Yamaguchi
Division of Cancer Systems Biology, Aichi Cancer Center Research Institute

■ Luncheon Seminar 1
ランチョンセミナー 1

July 25(Fri.)　12：40 ～ 13：30　1st venue

【Co-sponsored by Merck BioPharma Co., Ltd.】

座長：北野 滋久（Shigehisa Kitano　CANCER INSTITUTE HOSPITAL OF JFCR）

LS1-1　Deciphering the Tumor Immune Microenvironment via Gene Alterations in Cancer Cells

◯Shohei Koyama
National Cancer Center Research Institute

LS1-2　Analysis of Tumor Microenvironment and Its Clinical Significance in Urothelial Carcinoma via Multiplex Fluorescent Immunohistochemistry

◯Daiki Ikarashi
Department of Urology, Iwate Medical University

■ Luncheon Seminar 2
ランチョンセミナー 2

July 26(Sat.)　11：50 ～ 12：40　1st venue

【Co-sponsored by Bristol-Myers Squibb Company】

座長：保仙 直毅（Naoki Hosen　Osaka University School of Medicine）

LS2　Tips for CAR-T cell therapy in Hematology: Establishment and development of Cytotherapy Management Sciences

◯Yasuyuki Arai
Department of Cytotherapy, Kyoto University Hospital

■ Evening Seminar 1
イブニングセミナー 1

July 25(Fri.)　17：30 ～ 18：10　1st venue

【Co-sponsored by Gilead Sciences, Inc.】

座長：赤塚 美樹（Yoshiki Akatsuka　Nagoya University Graduate School of Medicine）

ES1　Clinical Insights into CD19 CAR-T Cells: Distinguishing Between 4-1BB CAR and CD28 CAR

◯Seitaro Terakura
Department of Hematology and Oncology, Nagoya University Graduate School of Medicine

■ Evening Seminar 2
イブニングセミナー 2

July 25(Fri.)　17 : 30 ～ 18 : 10　2nd venue

【Co-sponsored by PHC Corporation】

座長：本橋 新一郎（Shinichiro Motohash　Graduate School of Medicine, Chiba University）

ES2　Advancing T cell research using the LiCellMo, a live cell metabolism analysis device

◯Masakatsu Yamashita
Department of Immunology, Graduate School of Medicine, Ehime University

■ Evening Seminar 3
イブニングセミナー 3

July 25(Fri.)　17 : 30 ～ 18 : 10　3rd venue

【Co-sponsored by Miyari San Pharmaceutical Co., Ltd.】

座長：江畑 智希（Tomoki Ebata　Nagoya University Graduate School of Medicine）

ES3　Identifying mechanisms for augmenting antitumour efficacy of PD-1/PD-L1 blockade therapy by gut microbiota

◯Hiroyoshi Nishikawa[1,2,3)]
[1)] Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University,
[2)] Division of Cancer Immunology, Research Institute, National Cancer Center Japan,
[3)] Department of Immunology, Nagoya University Graduate School of Medicine

■ 市民公開講座
がん免疫療法について

7月26日（土） 16：00 ～ 18：00 第1会場

座長：赤塚 美樹（名古屋大学大学院医学系研究科 分子細胞免疫学分野）

PL-1 ここまでわかった。～がん免疫の歴史を振り返る～

◯池田 裕明

長崎大学大学院医歯薬学総合研究科 腫瘍医学分野 教授

PL-2 免疫療法ががん治療を変える

◯門脇 則光

香川大学医学部 血液・免疫・呼吸器内科学

PL-3 見逃さないで！免疫チェックポイント阻害薬の副作用

◯濱 昌代

名古屋大学医学部附属病院 がん化学療法看護認定看護師・外来化学療法室主任

PL-4 余命より足し算命でがんをしぶとく生きる

◯大橋 洋平

愛知県厚生連海南病院 緩和ケア病棟 緩和ケア医師（パート非常勤）

※演題登録時の情報を使用し掲載いたしております。
※お名前等において英語表記を優先し情報がない場合は日本語掲載いたしております。

■ Excellent Presentation Award for General Topics
一般演題優秀演題賞

July 26(Sat.)　10：55 ～ 11：40　1st venue

座長：赤塚 美樹（Yoshiki Akatsuka　Department of Immunology, Nagoya University Graduate School of Medicine）

EPA-1　Digital Twin-Driven Immune Profiling in Peripheral Blood: A Machine Learning-Based Simulation Platform for Evaluating Response to Immunotherapy

デジタルツイン概念を応用した末梢血免疫プロファイリング：機械学習統合型プラットフォームによる ICI 治療反応性評価

◯FEIFEI WEI[1,2)]，Taku Kouro[1,2)]，Hidetomo Himuro[1,2)]，Kayoko Tsuji[1,2)]，Mitsuru Komahashi[1,2,3)]，Tetsuro Sasada[1,2)]

[1)]神奈川県立がんセンター 臨床研究所 がん免疫療法研究開発学部，
[2)]神奈川県立がんセンター がんワクチン・免疫センター，[3)]日本大学 医学部 小児外科

EPA-2　Rejuvenation of effector CD8$^+$ T cells by repurposing the tyrosine kinase inhibitor ponatinib

◯Yuki Okuhiro[1,2)]，Sachiko Ito[2)]，Keisuke Watanabe[1)]，Yue Yan[1,2)]，Kazuhiro Kumagai[1,2)]，Takahiko Sato[2,3)]，Yasuhiro Kojima[4)]，Yuki Fujioka[5)]，Naoto Takahashi[5)]，Hitoshi Kiyoi[3)]，Yuka Maeda[1)]，Hiroyoshi Nishikawa[1,2,6,7)]

[1)]Division of Cancer Immunology, National Cancer Center Japan Research Institute,
[2)]Department of Immunology, Nagoya University Graduate School of Medicine,
[3)]Department of Hematology and Oncology, Nagoya University Graduate School of Medicine,
[4)]Laboratory of Computational Life Science, National Cancer Center,
[5)]Department of Hematology, Nephrology, and Rheumatology, Akita University Graduate School of Medicine,
[6)]Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine，[7)]Kindai University Faculty of Medicine

■ Young Research Encouragement Award Session 1
一般演題若手研究奨励賞セッション 1

July 25(Fri.)　9：20 ～ 10：20　3rd venue

座長：垣見 和宏（Kazuhiro Kakimi　Department of Immunology, Kindai University Faculty of Medicine）

早川 芳弘（Yoshihiro Hayakawa　Toyama University Institute of Traditional Chinese Medicine）

Y1-1　Characterization of a unique proliferative CD8 tumor-infiltrating lymphocyte induced by PD-L1 blockade

PD-L1 阻害治療に特徴的な増殖性腫瘍浸潤 CD8 T 細胞の同定

◯Naoya Baba，Mikiya Tsunoda，Kouji Matsushima，Satoshi Ueha
東京理科大学 生命医科学研究所 炎症・免疫難病制御部門

Y1-2 Immunostimulatory tumor cells enhance the antitumor efficacy of immune checkpoint inhibitors in a *Batf3*-independent manner in mice.

◯Hitoki Arisato[1,2)], Takuro Noguchi[1,3)], Akihiko Shiiya[1)], Yuta Toji[1,4)], Ichiro Kinoshita[1,5)], Masaaki Murakami[6)], Satoshi Konno[2)]

[1)] Department of Medical Oncology, Hokkaido University Graduate School of Medicine,

[2)] Department of Respiratory Medicine, Hokkaido University Graduate School of Medicine,

[3)] Shinshu Cancer Center, Shinshu University Hospital,

[4)] Department of Gastroenterological Surgery II, Division of Surgery, Hokkaido University Graduate School of Medicine, [5)] Division of Clinical Cancer Genomics, Hokkaido University Hospital,

[6)] Division of Molecular Psychoimmunology, Institute for Genetic Medicine, Hokkaido University

Y1-3 Reprogramming of Cancer-Associated Fibroblasts Enhances the Anti-tumor Effect of Anti-PD-L1 Antibody in Cholangiocarcinoma

◯Kisuke Ito[1,2)], Yukihiro Shiraki[1)], Shimpei Kubota[1)], Nobutoshi Esaki[1)], Ryota Ando[1)], Akihiro Sakai[1)], Tomoki Ebata[2)], Atsushi Enomoto[1)]

[1)] Department of Pathology, Nagoya University Graduate School of Medicine,

[2)] Division of Surgical Oncology, Department of Surgery, Nagoya University Graduate School of Medicine

Y1-4 Acrolein accelerates lipid peroxidation and ferroptosis process of CD8$^+$ T cells in TME

抗腫瘍効果における Acrolein の影響および Ferroptosis との関係

◯Koki Ichimaru, Koji Kitaoka, Yasuharu Haku, Tomonori Yaguchi, Tasuku Honjo, Kenji Chamoto

京都大学 医学研究科 がん免疫総合研究センター 免疫ゲノム講座

Y1-5 Integrated Spatial Transcriptomics Reveals Spatially Distinct Fibroblast Differentiation Shaping the Immune-Excluded Microenvironment in Urothelial Carcinoma

◯Tomohiro Iwasawa[1,2)], Nobuyuki Tanaka[1)], Kota Itahashi[2)], Hiroyoshi Nishikawa[2)], Mototsugu Oya[1)]

[1)] Keio University School of Medicine, Department of Urology,

[2)] National Cancer Center Research Institute, Division of Cancer Immunology

Y1-6 ROSE12, a novel ATP-dependent anti-CTLA-4 Switch Antibody™ with FcγR affinity-enhanced Fc, evokes strong anti-tumor immune response and mitigates toxicity mediated by tumor selective Treg depletion

ROSE12―新規 FcγR 親和性増強 ATP 依存性抗 CTLA-4 スイッチ抗体 ™―の腫瘍選択的 Treg 除去を介した抗腫瘍効果と毒性軽減の実証

◯Moe Yoshimoto[1)], Hiroki Hayashi[1)], Kanako Tatsumi[1)], Hitoshi Katada[1)], Toshiaki Tsunenari[1)], Susumu Hiroaki[1)], Kenji Nakagawa[1)], Hiroaki Nagano[1)], Saki Michisaka[1)], Masaki Honda[2)], Chie Kato[2)], Junko Shinozuka[2)], Hiroshi Tanaka[1)], Takehisa Kitazawa[1)], Mika Kamata-sakurai[1)], Tomoyuki Igawa[1)]

[1)] 中外製薬株式会社 研究本部, [2)] 中外製薬株式会社 TR 本部

Young Research Encouragement Award Session 2
一般演題若手研究奨励賞セッション 2

July 25(Fri.)　10 : 20 ～ 11 : 20　3rd venue

座長：中面 哲也（Tetsuya Nakatsura　Division of Cancer Immunothrapy, National Cancer Center）
宮原 慶裕（Yoshihiro Miyahara　Mie University Graduate School of Medicine）

Y2-1　Affinity-driven clonal competition modulates CD8$^+$ T-cell proliferation and differentiation

◯Masaki Kurosu, Mikiya Tsunoda, Haru Ogiwara, Kouji Matsushima, Satoshi Ueha
Division of Molecular Regulation of Inflammatory and Immune Diseases, Research Institute for Biomedical Sciences, Tokyo University of Science

Y2-2　Development of chimeric cytokine receptor-engineered CAR-T cells for CNS lymphoma

中枢神経系悪性リンパ腫に対するキメラサイトカイン受容体搭載 CAR-T 細胞療法の開発

◯Hitomi Kasuya[1)], Yasunori Amaishi[2)], Sachiko Okamoto[2)], Yuki Kagoya[1)]
[1)] 慶應義塾大学 先端医科学研究所 がん免疫研究部門, [2)] タカラバイオ株式会社

Y2-3　Decoding CTL Cytotoxicity via Real-Time Imaging of Granzyme B Secretion at the Single-Cell Level

◯Zhuohao Yang[1)], Mai Yamagishi[2)], Koji Nagaoka[3)], Yuto Kurisu[4)], Nobutake Suzuki[1)], Satoshi Yotsumoto[5)], Takashi Kamatani[6)], Takashi Funatsu[7)], Masato Tanaka[5)], Kazuhiro Kakimi[3)], Yoshitaka Shirasaki[1)]
[1)] Research Center for Advanced Science and Technology, The University of Tokyo, [2)] Live Cell Diagnosis, Ltd.,
[3)] Graduate School of Medicine, Kindai University,
[4)] Graduate School of Pharmaceutical Sciences, The University of Tokyo,
[5)] School of Life Sciences, Tokyo University of Pharmacy and Life Sciences,
[6)] Institute of Integrated Research M&D Data Science Center,
[7)] Graduate School of Integrated Sciences for Life, Hiroshima University

Y2-4　Single-molecule super-resolution imaging-based characterization of the signalosome of tonic signaling chimeric antigen receptors

◯Sana Hibino, Keisuke Watanabe, Hiroyoshi Nishikawa
Division of Cancer Immunology, National Cancer Center Research Institute

Y2-5　On-demand GLUT3 expression augments CAR-T cell metabolic fitness and antitumor efficacy while preventing toxicity in glioblastoma

◯Akihiro Nakamura[1)], Keisuke Watanabe[2)], Junya Yamaguchi[1,3)], Daisuke Sugiyama[3)], Shinichiro Kato[3)], Akihito Nagata[2)], Hitomi Nishinakamura[2)], Yukihiro Shiraki[4)], Atushi Enomoto[4)], Sachi Maeda[1)], Fumiharu Ohka[1)], Kazuya Motomura[1,5)], Yuichiro Tsukada[6)], Masaaki Ito[6)], Yuka Maeda[2)], Ryuzo Ueda[3)], Atsushi Natsume[7)], Hiroyoshi Nishikawa[2,3,8,9)], Ryuta Saito[1)]
[1)] Department of Neurosurgery, Nagoya University,
[2)] Division of Cancer Immunology, Research Institute/Exploratory Oncology Research & Clinical Trial Center (EPOC), National Cancer Center, [3)] Department of Immunology, Nagoya University Graduate School of Medicine,
[4)] Department of Pathology, Nagoya University Graduate School of Medicine,
[5)] Division of Neurosurgery, Shizuoka Cancer Center,
[6)] Department of Colorectal Surgery, National Cancer Center Hospital East,
[7)] Institute of Innovation for Future Society of Nagoya University,
[8)] Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology (CCII), Graduate School of Medicine, Kyoto University, [9)] Kindai University Faculty of Medicine

Y2-6 Impact of clonal hematopoietic-derived microenvironment in T-cell lymphomas on dasatinib treatment as an immunostimulatory agent

◯Sakurako Suma[1)], Mamiko Sakata[1,2,3)], Yasuhito Suehara[1,2)], Manabu Fujisawa[2,4)], Yoshiaki Abe[2)], Kenichi Makishima[1)], Tatsuhiro Sakamoto[1,2)], Hidekazu Nishikii[1,2)], Naoto Keino[5)], Masahiko Gosho[6)], Koichi Hashimoto[5)], Shigeru Chiba[2)]

[1)]筑波大学附属病院 血液内科, [2)]筑波大学 医学医療系 血液内科,
[3)]筑波大学 トランスボーダー医学研究センター 先端血液腫瘍学,
[4)]Centre for Lymphoid Cancer, BC Cancer, Vancouver, BC, Canada, [5)]筑波大学 つくば臨床医学研究開発機構,
[6)]筑波大学 医学医療系 生物統計学

Oral Session 1
Immune checkpoint blockade (1)
一般演題 1
免疫チェックポイント阻害剤（1）

July 25(Fri.) 9 : 20 ～ 10 : 20 2nd venue

座長：塚本 博丈（Hirotake Tsukamoto Division of Clinical Immunology and Cancer Immunotherapy, Center for Cancer Immunotherapy and Immunobiology, Kyoto University)

O-1 Impact of food consumption for response of immune checkpoint inhibitor therapy: food frequency questionnaire study (updated).

免疫チェックポイント阻害薬の治療効果に対する摂取食物の影響評価：食物摂取頻度調査（追報）

◯Hirotsugu Ariizumi[1)], Chisato Ogawa[5)], Mika Kaneki[5)], Nanaho Saito[5)], Emiko Mura[1)], Toshiaki Tsurui[1)], Risako Suzuki[1)], Nana Iriguchi[1)], Tomoyuki Ishiguro[1)], Yuya Hirasawa[1)], Go Ikeda[1)], Masahiro Shimokawa[1)], Ryotaro Ohkuma[1,6)], Yutaro Kubota[1)], Satoshi Wada[1,3)], Kiyoshi Yoshimura[1,2)], Miyuki Shimazui[4,5)], Atsushi Horiike[1)], Takuya Tsunoda[1,6)]

[1)]昭和医科大学 医学部 内科学講座 腫瘍内科学部門, [2)]昭和医科大学臨床薬理研究所臨床免疫腫瘍学部門,
[3)]昭和医科大学臨床薬理研究所臨床腫瘍診断学部門, [4)]昭和医科大学保健医療学部, [5)]昭和医科大学病院栄養科,
[6)]昭和医科大学統括がん情報センター

O-2 A Phase II Study of Atezolizumab in Patients with Advanced Non-Small Cell Lung Cancer Resistant to Anti-PD-1 Antibody Therapy

抗 PD-1 抗体治療耐性進行非小細胞肺癌に対するアテゾリズマブの第 II 相試験

◯Atsushi Horiike[1)], Emiko Mura[1)], Toshiaki Tsurui[1)], Risako Suzuki[1,2)], Nana Iriguchi[1)], Tomoyuki Ishiguro[1)], Yuya Hirasawa[1)], Ryotaro Ohkuma[1)], Go Ikeda[1)], Masahiro Shimokawa[1)], Hirotsugu Ariizumi[1)], Yutaro Kubota[1,2)], Satoshi Wada[1,3)], Kiyoshi Yoshimura[1,4)], Takuya Tsunoda[1)]

[1)]昭和医科大学医学部内科学講座腫瘍内科学部門, [2)]昭和医科大学横浜市北部病院内科,
[3)]昭和医科大学臨床薬理研究所臨床腫瘍診断学部門, [4)]昭和医科大学臨床薬理研究所臨床免疫腫瘍学部門

O-3 Combination of LVFX and CBM588 Enhances Immune Checkpoint Inhibitor Efficacy via CD8+ T Cells

LVFX と CBM588 の併用による CD8+T 細胞を介した免疫チェックポイント阻害薬の効果増強

◯Kohei Tajima[1,2,3)], Masahiro Hosonuma[1,4)], Eiji Funayama[1,4)], Junya Isobe[5)], Yuta Baba[1)], Hitoshi Toyoda[1,4)], Midori Shida[1)], Toshiaki Tsurui[1,4,6)], Aya Sasaki[1,4)], Rie Nakashima[1,2,3)], Takuya Tsunoda[6)], Atsuo Kuramasu[1)], Kazuo Koyanagi[3)], Kiyoshi Yoshimura[1,6)]

[1)]昭和大学 臨床薬理研究所 臨床免疫腫瘍学部門, [2)]東海大学大学院医学研究科先端医科学,
[3)]東海大学医学部外科学系消化器外科学, [4)]昭和医科大学医学部薬理学講座医科薬理学部門,
[5)]昭和医科大学薬学部病院薬剤学講座, [6)]昭和医科大学医学部内科学講座腫瘍内科学部門

O-4 Metabolites from Human Intestinal Bacteria as Adjuvants to Improve Immune Checkpoint Therapy in Gastric Cancer.

◯Takumi Iwasawa[1,2)], Suguru Yamauchi[3)], Tomoaki Ito[2,4)], Kazunori Kato[1)]

[1)]東洋大学 ライフイノベーション研究所, [2)]順天堂大学 静岡災害医学研究センター,
[3)]ジョンズホプキンス大学 医学部 外科, [4)]順天堂大学 静岡病院

O-5 Exosome inhibitor enhances the effect of PD-L1 antibody against urothelial carcinoma

エクソソーム産生阻害剤 GW4869 は尿路上皮癌に対する NK 細胞活性および PD-L1 抗体の効果を増強する

◯Yuichi Koyama, Masakatsu Takanashi
麻布大学 生命・環境科学部 臨床検査技術学科

O-6 Combination of Japanese Herbal Medicine “TSUDOSAN” with Immune Checkpoint Inhibitors Enhances Therapeutic Efficacy

◯Hidetomo Himuro[1,2,3)], Taku Kouro[1,3)], Feifei Wei[1,3)], Kayoko Tsuji[1,3)], Mitsuru Komahashi[4)], Tomoya Matsui[1,2,5)], Tetsuro Sasada[1,2,3)]

[1)]神奈川県立がんセンター 臨床研究所 がん免疫療法研究開発学部, [2)]神奈川県立がんセンター 免疫療法科,
[3)]神奈川県立がんセンター がんワクチンセンター, [4)]日本大学医学部小児外科, [5)]慶応義塾大学医学部産婦人科学教室

▌Oral Session 2
Immune checkpoint blockade (2)
一般演題 2
免疫チェックポイント阻害剤（2）

July 25(Fri.) 10：20 ～ 11：20 2nd venue

座長：上羽 悟史（Satoshi Ueha Tokyo University of Science）

O-7 Analysis of anti-tumor immune response enhanced by photodynamic therapy with talaporfin.

Talaporfin を用いた PDT による抗腫瘍免疫応答の解析

◯Ryotaro Imagawa[1)], Mohemad Ehab[1)], Tomonori Yaguchi[1,2,3)], Tasuku Honjyo[1)], Kenji Chyamoto[1,3)]

[1)]京都大学大学院医学研究科 がん免疫総合研究センター 免疫ゲノム医学講座,
[2)]京都大学大学院医学研究科 がん免疫総合研究センター 免疫代謝研究講座,
[3)]京都大学大学院医学研究科 がん免疫PDT研究講座

O-8 Vaccine development for in vivo induction of antibodies against target proteins: A fundamental study on a peptide vaccine inducing anti-PD-1 antibodies

◯Haruka Yamamoto[1)], Hidenori Ando[1,2)], Yasykazu Omoto[1)], Haruka Takata[1,2)], Tatsuhiro Ishida[1,2)]

[1)]Graduate School of Pharmaceutical Science Department of Pharmacokinetics and Biopharmaceutics Tokushima University, [2)]徳島大学 大学院医歯薬学研究部 DDS研究センター

O-9 Identification of Targeted Antigens for Pituitary Dysfunction Induced by anti-CTLA-4 antibody Using Expression Cloning with a Human Pituitary cDNA Library

◯Tetsushi Izuchi[1)], Shintaro Iwama[1)], Takanori Murase[1)], Koji Suzuki[1)], Tomoko Kobayashi[1)], Yoshiki Akatsuka[2)], Hiroshi Arima[1)]

[1)]Department of Endocrinology and Diabetes, Nagoya University Graduate School of Medicine,
[2)]Department of Immunology, Nagoya University Graduate School of Medicine

O-10 Deciphering Mechanisms of Immune Checkpoint Inhibitor Resistance in EGFR-Mutant Lung Cancer through Single-Cell Analysis of Tumor-Infiltrating Immune Cells

腫瘍内免疫細胞 single-cell 解析による EGFR 変異陽性肺がんにおける ICI 不応答性の機序解明

◯Shota Sasagawa[1)], Kazuhiro Maejima[1)], Koji Nagaoka[2)], Yukari Kobayashi[2)], Kazuhiro Kakimi[2)], Hidewaki Nakagawa[1)]

[1)]理化学研究所 生命医科学研究センター がんゲノム研究チーム, [2)]近畿大学 医学部 免疫学教室

O-11 Complete Response to Atezolizumab-Bevacizumab in HCC After Rituximab-Based B-Cell Depletion

◯San-Chi Chen[1)], Jen-Pei Huang[1)], Chun-Kuang Tsai[1)], Pei-Ying Hsieh[2)]

[1)]Department of Medicine, Taipei Veterans General Hospital, Taipei, Taiwan,
[2)]Department of Medicine, Far Eastern Memorial Hospital, New Taipei City, Taiwan

O-12 Cytokine-releasing syndrome (CRS) and immune effector cell-associated neurotoxicity syndrome (ICANS) that occurred during the administration of pembrolizumab plus pemetrexed for very elderly non-small cell lung cancer: A case report.

◯Hibiki Kanda, Yoshifumi Suga, Naoya Nishimura

Department of Respiratory disease center, Respiratory Medicine, Omi Medical Center.

Oral Session 3
Tumor microenvironment (1)
一般演題 3
腫瘍微小環境（1）

July 25(Fri.)　11：20 ～ 12：20　2nd venue

座長：塚原 智英（Tomohide Tsukahara　Department of Pathology, Sapporo Medical University）

O-13　Spatial Multiomics Uncovers Critical Regulatory Networks Between Vasculogenic Mimicry and Immune Evasion in Lung Adenocarcinoma

◯Chun-Hui Lee[1)], Wei-Pang Chung[1,3)], Shang-Yin Wu[1)], Yu-Min Yeh[1)], Shu-Hsien Wang[4)], Peng-Chan Lin[1,5,6)], Wu-Chou Su[1)]

[1)] College of Medicine, National Cheng Kung University, Institute of Clinical Medicine, Tainan, Taiwan,
[2)] Department of Oncology, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan, [3)] Center of Applied Nanomedicine, National Cheng Kung University, Tainan, Taiwan,
[4)] Department of Pathology, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan,
[5)] Department of Genomic Medicine, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan,
[6)] Center for Hospice and Palliative Shared Care, National Cheng Kung University Hospital, College of Medicine, National Cheng Kung University, Tainan, Taiwan

O-14　Association between the molecular subtypes of endometrial cancer and the immunophenotypes based on CD8$^+$ T cell tumor-infiltrating patterns

◯Satomi Hattori, Nobuhisa Yoshikawa, Komei Katayama, Mei Kubokawa, Hiroaki Kajiyama

Department of Obstetrics and Gynecology, Nagoya University Graduate School of Medicine

O-15　Spatial analysis of cellular interaction within the tumor microenvironment in diffuse large B-cell lymphoma

◯Xin Zhong[1)], Tasuku Kawano[2)], Naoe Goto[3)], Kazuyuki Shimada[4)], Akio Kohno[5)], Yachiyo Kuwatsuka[6)], Masataka Okamoto[7)], Kennosuke Karube[8)], Akihiro Tomita[3)], Hiroyoshi Nishikawa[1,9,10)], Yoshiki Akatsuka[1)]

[1)] Deparment of Immunology, Nagoya University Graduate School of Medicine,
[2)] Department of Pathology, JA Aichi Konan Kosei Hospital,
[3)] Department of Hematology, Fujita Health University School of Medicine,
[4)] Department of Hematology and Oncology, Nagoya University Graduate School of Medicine,
[5)] Department of Hematology and Oncology, JA Aichi Konan Kosei Hospital,
[6)] Department of Advanced Medicine, Nagoya University Hospital,
[7)] Department of Hematology and Oncology, Fujita Health University Okazaki Medical Center,
[8)] Department of Pathology and Laboratory Medicine, Nagoya University Graduate School of Medicine,
[9)] Division of Cancer Immunology, Research Institute, National Cancer Center,
[10)] Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine

O-16 Single-cell multiomics technology for the comprehensive analysis of transcriptomics and cancer driver mutation

◯Tadashi Imafuku[1)], Kyohei Matsumoto[2)], Shigeyuki Shichino[3)], Manabu Kawai[2)], Shinichi Hashimoto[1)]

[1)] Department of Molecular Pathophysiology, Wakayama Medical University,

[2)] Second department of surgery, Wakayama Medical University,

[3)] Division of Molecular Regulation of Inflammatory and Immune Disease, Research Institute for Biomedical Sciences, Tokyo University of Science

O-17 The mechanism of gut microbiome-mediated immune activation on the clinical efficacy of PD-1 blocking treatment in solid tumors.

◯Yitzu Lin[1)], Shota Fukuoka[2)], Hiroyoshi Nishikawa[2)], Shohei Koyama[1)]

[1)] 国立がんセンター 研究所 免疫ゲノム解析部門,

[2)] Research Institute/Exploratory Oncology Research & Clinical Trial Center (EPOC), National Cancer Center, Chiba, Japan

O-18 Spatial proteomics of tertiary lymphoid structures in Merkel cell carcinoma under immunotherapy

免疫療法下メルケル細胞癌における三次リンパ様構造の空間的プロテオミクス

◯Motoki Nakamura[1)], Dai Ogata[2)], Junji Kato[3)], Ko Yi-wen[1)], Hu Jiayue[1)], Maki Yoshimitsu[1)], Tetsuya Magara[1)], Hiroshi Kato[1)], Takeo Maekawa[4)], Masato Yasuda[5)], Yukiko Kiniwa[6)], Hideyuki Ishikawa[7)], Yasuhiro Nakamura[8)], Kotaro Nagase[9)], Akimichi Morita[1)]

[1)] 名古屋市立大学大学院医学研究科 加齢・環境皮膚科学, [2)] 国立がん研究センター中央病院 皮膚腫瘍科,

[3)] 札幌医科大学 皮膚科, [4)] 自治医科大学 皮膚科, [5)] 群馬大学 皮膚科, [6)] 信州大学 皮膚科, [7)] 横浜市立大学 皮膚科,

[8)] 埼玉医科大学国際医療センター 皮膚腫瘍科・皮膚科, [9)] 医療法人 ながせ皮膚科

▌Oral Session 4
Tumor microenvironment (2)
一般演題 4
腫瘍微小環境（2）

July 25(Fri.)　13 : 35 ～ 14 : 35　2nd venue

座長：大栗 敬幸（Takayuki Ohkuri　Department of Pathology, Asahikawa Medical University）

O-19 The effect of eradication of Helicobacter pylori on anti-tumor immune responses in gastric cancer

ピロリ菌除菌による胃癌抗腫瘍免疫応答増強の検討

◯Takuro Saito[1,2)], Kaoru Fujikawa[1,2)], Hisashi Wada[1)], Hidetoshi Eguchi[2)], Yuichiro Doki[2)]

[1)] 大阪大学 医学系 臨床腫瘍免疫学, [2)] 大阪大学 医学系 消化器外科学

O-20 Pathogenic Roles of Commensal Oral Bacteria in Oral Cancer Progression

口腔内常在細菌による口腔がん進展機構の解明

◯Tomonori Kamiya[1)], Megumu Yano[1)], Yuki Yamamoto[2)], Miki Nishio[3)], Akira Suzuki[3)], Kishiko Sunami[2)], Naoko Ohtani[1)]

[1)] 大阪公立大学 大学院 医学研究科 病態生理学, [2)] 大阪公立大学大学院医学研究科耳鼻咽喉科,

[3)] 神戸大学大学院医学研究科分子生物学分野

O-21 Hypoxic tumors identified by endoscopy exhibit the immunosuppressive tumor microenvironment in esophageal and gastric cancers

◯Atsuo Sai[1,2,3], Hiroki Yamashita[4], Shogo Kumagai[2], Kota Itahashi[2], Hiroyoshi Nishikawa[1,2], Shohei Koyama[3]

[1] National Cancer Center Division of Cancer Immunology, Research Institute,
[2] 名古屋大学 医学部 医学系研究科 分子細胞免疫学, [3] 国立がん研究センター研究所 免疫ゲノム解析部門,
[4] 国立がん研究センター東病院 内視鏡科

O-22 Single-cell RNA/TCR analysis of tumor-infiltrating immune cells in primary/recurrent glioblastoma

原発性 / 再発性の膠芽腫における腫瘍免疫細胞のシングルセル RNA/TCR 解析

◯Yuki Kanazashi[1], Shota Sasagawa[1], Yukari Kobayashi[2], Koji Nagaoka[2], Kazuhiro Kakimi[2], Hidewaki Nakagawa[1]

[1] 理化学研究所 生命医科学研究センター がんゲノム研究チーム, [2] 近畿大学医学部 免疫学教室

O-23 Immune and Molecular Profiling of NBNC HCC Based on Prior HBV Infection andIdentification of Novel Therapeutic Targets

◯Himari Kurosu[1], Yuta Ouchi[1], Wakana Nakaniwa[1], Shunsuke Shichi[2], Saori Kimura[2], Hiroki Nakamoto[2], Chisato Shirakawa[2], Akinobu Taketomi[2], Junya Ohtake[3,4], Hidemitsu Kitamura[1,3,4,5]

[1] 東洋大学 理工学部 生体医工学科, [2] 北大院・医学研究院・消化器外科学教室I,
[3] 東洋大・朝霞共通機器共同利用センター, [4] 東洋大・生体医工学研究センター, [5] 東洋大・生命・生体医工学

O-24 IFN-STAT1-dependent hepatocarcinogenesis in HBV-infected HCC patients associated with lifestyle-related diseases

◯Akio Honda[1], Yuta Ouchi[1], Wakana Nakaniwa[1], Shunsuke Shichi[2], Saori Kimura[2], Hiroki Nakamoto[2], Chisato Shirakawa[2], Akinobu Taketomi[2], Junya Otake[3,4], Hidemitsu Kitamura[1,3,4,5]

[1] 東洋大学 理工学部 生体医工学科, [2] 北海道大学大学院 医学研究院 消化器外科学教室I,
[3] 東洋大学 朝霞共通機器共同利用センター, [4] 東洋大学 生体医工学研究センター,
[5] 東洋大学 生命科学部 生体医工学科

▌Oral Session 5
Metabolism and tumor immunity/Others
一般演題 5
代謝とがん免疫・その他

July 25(Fri.)　14 : 35 ～ 15 : 35　2nd venue

座長：西田 充香子（Mikako Nishida　Department of Metabolic Immune Regulation, Okayama University）

O-25 Regulatory mechanism of increased 5'-nucleotidase CD73 expression by tumor-derived lactic acid in macrophages

◯Hongwu Ying[1], Takashi Baba[1], Kosuke Yusa[2], Norimitsu Inoue[1]

[1] Department of Molecular Genetics, Wakayama Medical University, [2] 京都大学 医生物学研究所 幹細胞遺伝学分野

O-26 Fasting–Refeeding synergizes with metformin to promote antitumor immunity through dynamic changes in CD8 T cells between bone marrow and solid tumor

◯Weiyang Zhao[1)], Miho Tokumasu[1)], Mikako Nishida[2)], Natsumi Imano[1)], Naoko Yamashita[2)], Heiichiro Udono[2)]

[1)] Department of Immunology, Okayama University,

[2)] Department of Metabolic Immune Regulation, Okayama University

O-27 Active aldehydes accelerate glycolysis/FAO imbalance and exhaustion of CD8+ T cells in tumor microenvironment

◯Koji Kitaoka, Haku Haku, Koki Ichimaru, Tomoko Hirano, Tomonori Yaguchi, Tasuku Honjo, Kenji Chamoto

京都大学大学院 医学研究科附属 がん免疫総合研究センター 免疫ゲノム医学講座

O-28 Development of novel immunotherapeutic strategy using RUNX1 inhibitor targeting intragenic silencer in HTLV-1 genome

◯Kenji Sugata, Akhinur Rahman, Koki Niimura, Yorifumi Satou

Joint Research Center for Human Retrovirus, Kumamoto university

O-29 Mitochondrial signaling and metabolism in the tumor immune microenvironment for better cancer immunotherapy

◯Alan Yueh-Luen Lee, Ying-Chen Lin, Yu-Chieh Lee, Han-Yu Chou

National Institute of Cancer Research, Taiwan

O-30 The immune single-cell atlas of the deep venous thrombosis and tumor-associated venous thrombosis

◯Chen-Wei Yu[1)], Yin Xia[2)], Linlin Zhou[3)], Hung-Chih Yang[4)]

[1)] Department of Statistics and Information Science, Fu Jen Catholic University, Taiwan,

[2)] Department of Vascular Surgery, the Affiliated People's Hospital of Fujian University of Traditional Chinese Medicine, Fuzhou, China, [3)] Institute of Immunotherapy, Fujian Medical University, Fuzhou, China,

[4)] Department of Microbiology, National Taiwan University College of Medicine, National Taiwan University Hospital, Taipei, Taiwan

▌Oral Session 6
Anti-tumor effector cells (2)
一般演題 6
抗腫瘍エフェクター細胞（2）

July 25(Fri.) 15：35 ～ 16：25 2nd venue

座長：尾路 祐介（Yusuke Oji The University of Osaka）

O-31 Mitochondrial tuning of CD8+ T cell metabolism improves cancer immunotherapy by a novel orally administration chemical compound

◯Huimin Sun[1)], Yosuke Dotsu[2)], Daisuke Muraoka[1,3)], Takayuki Terukina[5)], Naohisa Ogo[4)], Situo Deng[1)], Kiyoshi Yasui[1)], Mitsuhiro Yoneda[1)], Hiromu Kondo[5)], Akira Asai[4)], Hiroaki Ikeda[1)]

[1)] Department of Oncology, Nagasaki University Graduate School of Biomedical Sciences,

[2)] Department of Respiratory Medicine, Ngasaki University Hospital,

[3)] Division of Translational Oncoimmunology, Aichi Cancer Research Institute,

[4)] Center for Drug Discovery, Graduate School of Pharmaceutical Sciences, University of Shizuoka,

[5)] Department of Pharmaceutical Engineering and Drug Delivery Science, School of Pharmaceutical Sciences, University of Shizuoka

O-32 The *Runx3*^{R122C} variant induces effector T_{EX}^{prog} development and improves $CD8^{+}$-T cell anti-tumor immunity

◯Shiki Takamura[1)], Aneela Nomura[1,2)], Ei Wakamatsu[5)], Hideyuki Yoshida[3)], Kazuki Okuyama[2)], Sawako Muroi[2)], Koshi Imami[4)], Tadashi Yokosuka[5)], Ichiro Taniuchi[2)]

[1)]Laboratory for Immunological Memory, RIKEN IMS, [2)]Laboratories for Transcriptional Regulation, RIKEN IMS, [3)]YCI laboratory for Immunological Transcriptomics, RIKEN IMS, [4)]Proteome Homeostasis Research Unit, RIKEN IMS, [5)]Department of Immunology, Tokyo Medical University

O-33 KEAP1-NRF2 axis balances stemness and exhaustion in CD8+ T cells

◯Chen Yao

Department of Immunology, University of Texas Southwestern Medical Center, USA

O-34 Vitamin C enhances anti-tumor activity of CD8+ T cells through DNA demethylation and upregulation of Batf3

ビタミン C は Batf3 遺伝子の DNA 脱メチル化と発現増加を誘導し、CD8+ T 細胞の抗腫瘍活性を亢進させる

◯Kenta Kondo[1)], Tatsuya Hasegawa[1)], Mina Kumode[1,2)], Noriyuki Sugo[3)], Yasutoshi Agata[1)]

[1)]滋賀医科大学 医学部 分子生理化学部門, [2)]滋賀医科大学 医学部 血液内科, [3)]大阪大学 生命機能研究科

O-35 Afatinib exerts an inhibitory effect on T cell-mediated cytotoxicity

◯Masaru Yokomura[1,2)], Seiji Nagano[3)], Hiroshi Kawamoto[3)], Takahiro Asakage[1)], Ryohei Katayama[2)]

[1)]Department of Head and Neck Surgery, Graduate School of Medical and Dental Sciences, Institute of Science Tokyo, [2)]Division of Experimental Chemotherapy, Cancer Chemotherapy Center, Japanese Foundation for Cancer Research, Tokyo, Japan, [3)]Institute for Life and Medical Sciences, Kyoto University

■ Oral Session 7
Anti-tumor effector cells (3)
一般演題 7
抗腫瘍エフェクター細胞（3）

July 25(Fri.) 16：25 ～ 17：15 2nd venue

座長：村岡 大輔（Daisuke Muraoka Aichi Cancer Center Research Institute Division of Immune Response)

O-36 Identification of an antigen recognized by tumor-infiltrating lymphocyte in a patient with osteosarcoma

◯Takahide Itabashi, Kenji Murata, Tomohide Tsukahara, Terufumi Kubo, Takayuki Kanaseki, Yoshihiko Hirohashi, Toshihiko Torigoe

Department of Pathology, Sapporo Medical University, School of Medicine

O-37 Identification of shared neoantigens in patients with malignant melanoma

悪性黒色腫（メラノーマ）患者に対する shared ネオアンチゲンの同定

◯Yuta Nagatsuka[1)], Kazunori Yokoi[5)], Syokichi Takahama[1)], Yuji Masuta[2)], Hirotomo Murakami[1)], Taito Ito[4)], Takuto Nogimori[1)], Takahiro Tomiyama[1)], Satoshi Nojima[6)], Hidekazu Morii[6)], Yusuke Mizokami[4)], Kazuma Kiyotani[3)], Atsushi Tanemura[5)], Takuya Yamamoto[1,7,8)]

[1)]国立研究開発法人医薬基盤・健康・栄養研究所 プレシジョン免疫プロジェクト,
[2)]国立研究開発法人 医薬基盤・健康・栄養研究所 難病・免疫ゲノムプロジェクト,
[3)]国立研究開発法人 医薬基盤・健康・栄養研究所 抗体デザインプロジェクト,
[4)]国立研究開発法人 医薬基盤・健康・栄養研究所 難病性疾患プロジェクト,
[5)]大阪大学大学院医学系研究科 内科系臨床医学専攻情報統合医学講座皮膚科学教,
[6)]大阪大学大学院医学系研究科 病態病理学講座 病態病理学, [7)]大阪大学大学院薬学研究科 免疫老化制御学,
[8)]大阪大学大学院医学系研究科 免疫・感染制御学講座

O-38 Construction of detection system for naturally presented antigens by cancer cells

◯Yujia Sun[1,2)], Ayako Demachi Okamura[1)], Shuichi Shinohara[2)], Yoshiki Akatsuka[3)], Kazuhide Onoguchi[4)], Daiki Miura[4)], Yuki Tanaka[4)], Keiko Yamashita[4)], Zhongliang Guo[5)], Rui Yamaguchi[5,6)], Hiroaki Kuroda[7)], Hirokazu Matsushita[5)], Tsukasa Nabekura[1,2)], Daisuke Muraoka[1)]

[1)]Division of Immune Response, Aichi Cancer Center Research Institute,
[2)]名古屋大学大学院 医学系研究科 細胞腫瘍学, [3)]名古屋大学大学院 医学系研究科 分子細胞免疫学,
[4)]日本電気株式会社、AI創薬統括部, [5)]愛知県がんセンター研究所 システム解析学分野,
[6)]名古屋大学大学院 医学系研究科 がんシステム情報学, [7)]帝京大学医学部附属漢口病院 呼吸器外科

O-39 Spontaneous high clonal expansion of WT1-specific cytotoxic T-lymphocytes in patients with WT1-expressing solid tumor

◯Soyoko Morimoto[1,2)], Yukie Tanaka[3)], Jun Nakata[4)], Fumihiro Fujiki[2)], Hiroko Nakajima[5)], Sumiyuki Nishida[6,7)], Naoki Hosen[8)], Akihiro Tsuboi[2)], Yusuke Oji[4)], Yoshihiro Oka[1)], Haruo Sugiyama[5)]

[1)]Department of Cancer Stem Cell Biology, Graduate School of Medicine, The University of Osaka,
[2)]大阪大学 大学院医学系研究科 癌ワクチン療法学寄附講座,
[3)]東京科学大学 大学院医歯学総合研究科 微生物・感染免疫解析学分野,
[4)]大阪大学 大学院医学系研究科 生体病態情報科学講座, [5)]大阪大学 大学院医学系研究科 癌免疫学寄附講座,
[6)]大阪大学 大学院医学系研究科 呼吸器・免疫内科学講座,
[7)]大阪大学 大学院医学系研究科 医学部附属病院 産学連携・クロスイノベーションイニシアティブ,
[8)]大阪大学 大学院医学系研究科 血液・腫瘍内科学講座

O-40 Immune profiling of tumor infiltrating T cells in renal cell carcinoma by single cell RNA-seq analysis

腎細胞がんの腫瘍浸潤 T 細胞の scRNA-seq 解析による免疫プロファイリング

◯Mitsuru Komahashi[1,2)], Shun Horaguchi[1,2)], Taku Kouro[1,3)], Kayoko Tsuji[1,3)], Rika Kasajima[4)], Shuichiro Uehara[2)], Tetsuro Sasada[1,3)]

[1)]神奈川県立がんセンター 臨床研究所 がん免疫療法研究開発学部, [2)]日本大学医学部外科学系小児外科学分野,
[3)]神奈川県立がんセンター がんワクチン・免疫センター, [4)]神奈川県立がんセンター臨床研究所 がん分子病態学部

Oral Session 8
Anti-tumor effector cells (1)
一般演題 8
抗腫瘍エフェクター細胞（1）

July 26(Sat.)　8：25 ～ 9：25　2nd venue

座長：清水 佳奈子（Kanako Shimizu　Laboratory for Immunotherapy, RIKEN-IMS）

O-41　A highly active form of chemokine XCL1 functions as an adjuvant to enhance antitumor CD8+ T cell responses in tumors

高活性型ケモカイン XCL1 は腫瘍局所内の免疫応答を賦活化するアジュバントとして機能する

◯Ayumu Okamoto, Kazuhiko Matsuo, Momo Kamei, Kaho Shimada, Yuta Hara, Takashi Nakayama
近畿大学 薬学部 医療薬学科

O-42　Immunotherapy using allogenic NK cells downregulates mitochondrial-related genes and inhibits the OXPHOS system of malignant meningioma

◯Ryosuke Matsuda[1)], Ryosuke Maeoka[1)], Tsutomu Nakazawa[1,3)], Kengo Yamada[1)], Takayuki Morimoto[1)], Fumihiko Nishimura[1)], Mitsutoshi Nakamura[2)], Takahiro Tsujimura[2)], Ichiro Nakagawa[1)]
[1)] Department of Neurosurgery, [2)] グランソール奈良, [3)] グランソール免疫研究所

O-43　Anti-tumor effect of intratumoral administration of induced pluripotent stem cell-derived NKT cells on glioblastoma through CD155/DNAM-1 interaction

膠芽腫に対する iPS 細胞由来 NKT 細胞の腫瘍内投与を用いたがん免疫療法の有効性

◯Ko Ozaki[1,2)], Takahiro Aoki[1,3)], Masayoshi Kobayashi[1,2)], Iori Kojima[1,2)], Yoshinori Higuchi[1,2)], Shinichiro Motohashi[1)]
[1)] 千葉大学 大学院 医学研究院 免疫細胞医学, [2)] 千葉大学 大学院 医学研究院 脳神経外科,
[3)] 理化学研究所 生命医科学研究センター 発生遺伝学研究室

O-44　Themis2 impairs anti-tumor activity of natural killer cells

Themis2 はナチュラルキラー細胞の抗腫瘍免疫を抑制する

◯Tsukasa Nabekura[1,2,3,4)], Amalia Deborah Elfira[5,6)], Akira Shibuya[3,4,5,6)]
[1)] 愛知県がんセンター 研究所 腫瘍免疫応答研究分野,
[2)] 名古屋大学大学院医学系研究科・医学部医学科 がん先端診断・治療開発学 細胞腫瘍学講座,
[3)] 筑波大学 生存ダイナミクス研究センター 免疫学, [4)] 筑波大学 革新的創薬開発研究センター,
[5)] 筑波大学 医学医療系 免疫制御医学, [6)] 筑波大学 人間総合科学研究科 医学学位プログラム

O-45　Elucidation of NK Cell Dysfunction and Immune Evasion Mechanism by Soluble B7-H6 in Gastric Cancer

胃癌における可溶性 B7-H6 による NK 細胞機能低下と免疫逃避メカニズムの解明

◯YIKUN LIN[1)], Takumu Yamada[2)], Takumi Iwasawa[3,4)], Kazunori Kato[1,3)], Tetsu Fukunaga[5)], Hajime Orita[5)]
[1)] 東洋大学大学院 健康スポーツ科学研究科 栄養科学専攻, [2)] 東洋大学大学院 理工学研究科 生体医工専攻,
[3)] 東洋大学 ライフイノベーション研究所, [4)] 順天堂大学 静岡災害医学研究センター, [5)] 順天堂大学 上部消化管外科

O-46 Identification of a distinct subpopulation of NK cell lineage by asialo-GM1 expression

◯Ka He[1)], Luckman Bagas Dwiyana[1)], Tatsuji Kimura[2)], Kazuyoshi Takeda[3)], So-ichiro Sasaki[1)], Yoshihiro Hayakawa[1)]

[1)] Section of Host Defences, Institute of Natural Medicine, University of Toyama,

[2)] Diagnostic Division, Yamasa Corporation,

[3)] Laboratory of Cell Biology, Graduate School of Medicine, Juntendo University

■ Oral Session 9
Tumor microenvironment (5)
一般演題 9
腫瘍微小環境（5）

July 26(Sat.)　9：25 ～ 10：35　2nd venue

座長：金関 貴幸（Takayuki Kanaseki　Division of Molecular Pathology, School of Medicine, Niigata University）

O-47 Importance of spatial interactions between cancer-associated fibroblasts and cancer cells in anti-tumor immune responses.

抗腫瘍免疫応答におけるがん関連線維芽細胞とがん細胞の空間的相互作用の重要性

◯Tomoka Izumikawa[1)], Yuto Naoi[1,2)], Yumi Inukai[1,3)], Joji Nagasaki[1)], Youki Ueda[1)], Yin Min Thu[1,4)], Takamasa Ishino[1)], Ken Suzawa[4)], Kenichi Yamamoto[5)], Masakiyo Sakaguchi[5)], Shuta Tomida[6)], Yoshinobu Maeda[7)], Shinichi Toyooka[4)], Mizuo Ando[2)], Yosuke Togashi[1,3,8)]

[1)] 岡山大学 腫瘍微小環境学, [2)] 岡山大学 耳鼻咽喉・頭頸部外科, [3)] 岡山大学病院 アレルギー・呼吸器内科, [4)] 岡山大学 呼吸器・乳腺内分泌外科, [5)] 岡山大学 細胞生物学, [6)] 岡山大学病院 ゲノム医療総合推進センター, [7)] 岡山大学 血液・腫瘍・呼吸器内科学, [8)] 近畿大学 医学部

O-48 Bacteria Paenibacillaceae Associated with High Tertiary Lymphoid Structures in Lung Squamous Cell Carcinoma

◯Sho Inomata[1)], Kazuyuki Hamada[1)], Yuki Ozaki[1)], Satoshi Muto[1)], Yoshiki Suzuki[2)], Yoshiyuki Maruya[1)], Hikaru Yamaguchi[1)], Masayuki Watanabe[1)], Naoyuki Okabe[1)], Hiroyuki Suzuki[1)]

[1)] Department of Chest Surgery, Fukushima Medical University,

[2)] Department of Microbiology, Fukushima Medical University

O-49 Tertiary lymphoid structures in the tumor micro immune environment of EGFR-positive lung cancer are associated with prognosis

◯Hikaru Yamaguchi, Yoshiyuki Maruya, Sho Inomata, Masayuki Watanabe, Yuki Ozaki, Satoshi Mutou, Naoyuki Okabe, Kazuyuki Hamada, Hiroyuki Suzuki

Chest surgery,Fukushima Medical University

O-50 CXCL13 and CCL21 induce tertiary lymphoid structures and enhance the efficacy of immune checkpoint inhibitors in malignant melanoma

悪性黒色腫における CXCL13 および CCL21 による三次リンパ様構造の誘導と免疫チェックポイント阻害薬治療効果の増強

◯Maki Yoshimitsu[1)], Motoki Nakamura[1)], Tetsuya Magara[1)], Shinji Kano[1)], Hiroshi Kato[1)], Aiko Sakai[2)], Masaya Sugiyama[2)], Masashi Mizokami[3)], Akimichi Morita[1)]

[1)] 名古屋市立大学大学院 医学研究科 加齢・環境皮膚科学,

[2)] 国立健康危機管理研究機構 国立国際医療研究所 感染病態研究部,

[3)] 国立健康危機管理研究機構 国立国際医療研究所 ゲノム医科学プロジェクト

O-51 Analysis of tumor immune microenvironment in the upper tract urothelial carcinoma with intravesical recurrence

◯Daisuke Ito[1,2)], Tokiyoshi Tanegashima[1,2)], Genshiro Fukuchi[1,3)], Genki Okumura[2,4)], Kota Itahashi[2)], Shigehiro Tsukahara[1)], Jun Mutaguchi[1)], Shunsuke Goto[1)], Satoshi Kobayashi[1)], Takashi Matsumoto[1)], Masaki Shiota[1)], Yoshinao Oda[3)], Shohei Koyama[4,5)], Hiroyoshi Nishikawa[2,6,7)], Masatoshi Eto[1)]

[1)] Department of Urology, Graduate School of Medical Sciences, Kyushu University,

[2)] Division of Cancer Immunology, Research Institute, National Cancer Center,

[3)] Department of Anatomic Pathology, Graduate School of Medical Sciences,

[4)] Department of Immuno genomic medicine, Fundamental Innovative Oncology Core, Research Institute, National Cancer Center,

[5)] Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine,

[6)] Department of Immunology, Nagoya University Graduate School of Medicine, Nagoya,

[7)] Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine

O-52 Metformin synergizes with PD-1 blockade to promote normalization of tumor vessels via CD8T cells and IFNγ.

◯Miho Tokumasu[1)], Mikako Nishida[2)], Weiyang Zhao[1)], Ruoyu Chao[1)], Natsumi Imano[1)], Naoko Yamashita[2)], Kyoko Hida[3)], Hisamichi Naito[4)], Heiichiro Udono[2)]

[1)] 岡山大学 医歯薬学域 免疫学分野, [2)] 岡山大学 医歯薬学域 代謝免疫制御学分野,

[3)] 北海道大学 大学院歯学研究院 口腔病態学分野　血管生物分子病理学教室,

[4)] 金沢大学 医薬保健研究域 医学系 血管分子生理学

O-53 Tumor Vascular Diversity and Tumor Immunity

◯Kyoko Hida, Aya Matsuda, Nako Maishi

Vascular Biology and Molecular Pathology, Faculty of Dental Medicine, Hokkaido University

Oral Session 10
Tumor microenvironment (3)
一般演題 10
腫瘍微小環境（3）

July 26(Sat.)　10：35 ～ 11：35　2nd venue

座長：北村 秀光（Hidemitsu Kitamura　Department of Biomedical Engineering, Faculty of Science and Engineering, Toyo University）

O-54　Elucidation of Immunodeficiency Mechanisms Involved in Arginine Metabolism in the Hepatocellular Carcinoma Microenvironment and Its Application to Cancer Immunotherapy through Regulation

肝がん微小環境でのアルギニン代謝による免疫不全メカニズムの解明とその制御によるがん免疫治療への応用

◯Hikaru Sekikawa[1)], Kaito Nakzato[1)], Syunsuke Shichi[2)], Saori Kimura[2)], Yuki Nakamoto[2)], Chisato Shirakawa[2)], Akinobu Taketomi[2)], Zyunya Otake[3,4)], Hidemitsu Kitamura[1,3,4,5)]

[1)]東洋大学 理工学部 生体医工学科, [2)]北海道大学 医学研究院 消化器外科学教室I,
[3)]東洋大学 朝霞共通機器共同利用センター, [4)]東洋大学 生命科学部 生体医工学研究センター,
[5)]東洋大学 生命科学部 生体医工学科

O-55　Local, but not circulating, complement C3 governs immune checkpoint blockade efficacy

◯Yuki Miyai[1,2)], Yuichi Ando[2)], Atsushi Enomoto[1)]

[1)]Department of Pathology, Nagoya University Graduate School of Medicine,
[2)]Department of Clinical Oncology and Chemotherapy, Nagoya University Hospital

O-56　Identification of CD8+ T cells-inducing factor in tumor microenvironment of kidney cancer

◯Taigo Kato[1)], Gaku Yamamichi[1)], Yu Ishiduya[1)], Yoshiyuki Yamamoto[1)], Koji Hatano[1)], Atsunari Kawashima[1)], Chisasto Ohe[2)], Norio Nonomura[1)]

[1)]Department of Urology, The University of Osaka Graduate School of Medicine, [2)]兵庫医科大学医学部病理診断科

O-57　Reductive tumor microenvironment of NRF2-activated cancer

◯Hozumi Motohashi[1)], Shohei Murakami[1)], Shaoting Pan[1)], Keito Okazaki[2)], Shigeyuki Shichino[3)], Kazuki Hayasaka[4)], Chikara Sakai[4)], Yoshinori Okada[4)], Takashi Suzuki[5)], Takaaki Akaike[6)], Madoka Kawaguchi[1)]

[1)]東北大学大学院医学系研究科, [2)]東北大学加齢医学研究所 遺伝子発現制御分野,
[3)]東京理科大学研究推進機構, 生命医科学研究所 炎症・免疫難病制御部門,
[4)]東北大学加齢医学研究所呼吸器外科学分野, [5)]東北大学大学院医学系研究科病理診断学分野,
[6)]東北大学大学院 医学系研究科レドックス医学分野

O-58　PKM1 Expression May Contribute to Immune Exclusion in Neuroendocrine-Type SCLC

◯Naoki Shijubou[1,2,4)], Terufumi Kubo[1)], Kenta Sasaki[1)], Tatsuru Ikeda[3)], Toshiyuki Sumi[2,4)], Yoshihiko Hirohashi[1)], Hirofumi Chiba[2)], Toshihiko Torigoe[1)]

[1)]札幌医科大学 病理学講座 病理学第一分野, [2)]札幌医科大学 呼吸器・アレルギー内科学講座,
[3)]函館五稜郭病院 病理診断科, [4)]函館五稜郭病院 呼吸器内科

O-59 Taste 2 receptor -Mediated Signaling Pathways Involved in Immune Escape and Tumor Microenvironment Formation in Colorectal Cancer

苦味受容体を介したシグナル伝達経路は大腸がんの免疫逃避および腫瘍微小環境形成に関与する

◯Kotoha Nozaki[1)], Taiga Yunoue[2)], Junya Ohtake[3,4)], Hidemitsu Kitamura[1,2,3,4)]

[1)]東洋大学 理工学部 生体医工学科, [2)]東洋大院 生命科学研究科 生体医工学専攻,

[3)]東洋大学 朝霞共通機器共同利用センター, [4)]東洋大学 生体医工学研究センター

▌Oral Session 11
Tumor microenvironment (4)
一般演題 11
腫瘍微小環境（4）

July 26(Sat.)　13：25 ～ 14：25　2nd venue

座長：宇高 恵子（Keiko Udaka　Department of Immunology, School of Medicine, Kochi University）

O-60 HLA-II neoantigen presentation in the TME and CD4$^+$ T cell surveillance in colorectal cancer

大腸癌における腫瘍微小環境での HLA-II ネオアンチゲン提示と CD4$^+$ T 細胞の監視

◯Satoru Matsumoto[1,2)], Takahiro Tsujikawa[4)], Serina Tokita[1,3)], Toshihiko Torigoe[1)], Yoshihiko Hirohashi[1)], Takayuki Kanaseki[1,3)]

[1)]札幌医科大学 医学部 医学科 病理学講座 病理学第一分野, [2)]イムス札幌消化器中央総合病院 外科,

[3)]札幌医科大学 免疫プロテオゲノミクス共同研究拠点, [4)]京都府立医科大学 耳鼻咽喉科・頭頸部外科

O-61 Single-cell analysis of neoantigen-specific CD8$^+$ T cells reveals their intratumoral dynamics and functional states in sarcoma

単一細胞解析による肉腫におけるネオアンチゲン特異的 CD8+T 細胞の腫瘍内動態と機能解析

◯Yukari Kobayasi[1)], Koji Nagaoka[1)], Yuki Funauchi[2)], Sachiko Okamoto[3)], Kazuhiro Kakimi[1)]

[1)]近畿大学医学部免疫学, [2)]東京医科歯科大学 整形外科, [3)]タカラバイオ株式会社

O-62 Mechanistic insights into miR-20b-mediated immune-cancer cell crosstalk in tumor-bearing hosts for advancing cancer immunotherapy

担がん生体における miR-20b の発現を介した免疫細胞 - がん細胞の相互作用メカニズムの解明とがん免疫治療への応用

◯Soma Todoriki[1)], Ryotaro Suzuki[1)], Akari Shirato[2)], Hikaru Sakamoto[1)], Junya Otake[3,4)], Hidemitsu Kitamura[1,2,3,4)]

[1)]東洋大学院 生命科学科 生体医工学専攻, [2)]東洋大学・理工学部・生体医工学科,

[3)]東洋大学・朝霞共通機器共同利用センター, [4)]東洋大学・生体医工学研究センター

O-63 Mechanistic Insights into IL-6-Related microRNAs in Cancer Malignancy and Immunotherapy

IL-6 関連マイクロ RNA のがん悪性化メカニズム解明とがん免疫治療への応用

◯Ryoutaro Suzuki[1)], Soma Todoriki[1)], Hikaru Sakamoto[1)], Junya Ohtake[2,3)], Hidemitsu Kitamura[1,2,3)]

[1)]東洋大学大学院 生命科学研究科 生体医工学専攻, [2)]東洋大学 朝霞共通機器共同利用センター,

[3)]東洋大学 生体医工学研究センター

O-64 Preclinical evaluation of cancer immunotherapy targeting human macrophages using humanized immune system mouse models

◯Yasuyuki Saito[1,2)], Tania Afroj[1,2)], Tomoko Takai[2)], Takenori Kotani[3)], Yoji Murata[3)], Ikumi Katano[4)], Takeshi Takahashi[4)], Takashi Matozaki[2)]

[1)] Department of Immunology, Faculty of Medicine, Shimane University,

[2)] Division of Biosignal Regulation, Kobe University Graduate School of Medicine,

[3)] Division of Molecular and Cellular Signaling, Kobe University Graduate School of Medicine,

[4)] Immunology laboratory, Department of Medical Innovation, Division of Multiverse Medical Sciences, Central Institute for Experimental Medicine and Life Science

O-65 Development of a Therapeutic Vaccine for Cervical Cancer

子宮頸がんに対する治療型ワクチンの開発

◯Kanako Shimizu[1)], An Sanpei[1)], Yan Liu[1)], Marin Yanagawa[1)], Takuya Ishibashi[1)], Satoru Yamasaki[1)], Shin-ichiro Fujii[1,2)]

[1)] 理研 免疫細胞治療研究チーム, [2)] 理研 aAVC創薬橋渡し基盤ユニット

▌Oral Session 12
Immune escape/resistance to immunotherapy
一般演題 12
免疫逃避機構・治療抵抗性

July 26(Sat.)　14 : 25 ～ 15 : 25　2nd venue

座長：橋本 真一（Shinichi Hashimoto　Wakayama Medical University）

O-66 Combination therapy of T cell therapy and compound 433 overcomes tumor heterogeneity

◯Pengyu Miao[1)], Situo Deng[1)], Daisuke Ehara[1,2)], Daisuke Muraoka[3)], Naohisa Ogo[4)], Mitsuhiro Yoneda[1)], Kiyoshi Yasui[1)], Akira Asai[4)], Hiroaki Ikeda[1)]

[1)] Dept. of Oncology, Nagasaki Univ. Biomed. Sci., [2)] Dept. of Dermatology, Nagasaki Univ. Biomed. Sci.,

[3)] Oncoimmunology Div., Aichi Cancer Center Res. Inst., [4)] Drug Discovery Ctr., Univ. of Shizuoka

O-67 CD96 inhibits DNAM-1 clustering by altering the distribution of CD155 in immunological synapse and attenuates the activation of CD8 T cells

CD96 は CD155 の分布を変化させることで DNAM-1 クラスター形成を阻害し CD8 T 細胞の活性化を減弱させる

◯Ei Wakamatsu, Ann Hattori, Hiroaki Machiyama, Ryuji Hashimoto, Hiroko Toyota, Masae Furuhata, Hitoshi Nishijima, Arata Takeuchi, Tadashi Yokosuka

東京医科大学 免疫学分野

O-68 Elucidation of the mechanism of innate immune evasion by cGAMP degrading enzyme in cancer cells

がん細胞における cGAMP 分解酵素による自然免疫回避機構の解明

◯Seiichi Sato, Akinori Takaoka

北海道大学 遺伝子病制御研究所 分子生体防御分野

O-69 Competition for dendritic cells limits engineered TCR-T cell activation in murine lung tumor-draining lymph nodes and impairs synergy with PD-L1 blockade

◯William Nutt[1)], Emma Bingham[1)], Jessica Huang[2)], Victor Zepeda[2)], Andrew Snyder[1,2)], Mitchell Kluesner[1,2)], Megha Sarvometha[1)], Sarah Garrison[1)], Dani Miller[1)], Sebastian LaRosa[1)], Mark Headley[2)], Michael Gerner[1)], Shivani Srivastava[1)]

[1)]Human Biology Division, Fred Hutch Cancer Center, USA, [2)]University of Washington, Seattle, WA, USA

O-70 Immunological characterization of teratomas engrafted in allogeneic hosts

アロホストに生着する奇形腫の免疫学的特性に関する検討

◯Tomoki Kamatani, Ken-ichiro Seino

北海道大学 遺伝子病制御研究所 免疫生物分野

O-71 Vascular regulation of tumor resistance to immunotherapy

◯Yi Fan[1)], Yanqing Anna Gong[2)]

[1)]Radiation Oncology, University of Pennsylvania, USA,

[2)]Department of Medicine, University of Pennsylvania, Philadelphia, USA

■ Oral Session 13
Antibody therapy/Vaccination (1)
一般演題 13
抗体・ワクチン療法（1）

July 25(Fri.) 11 : 20 ～ 12 : 20 3rd venue

座長：笹田 哲朗（Tetsuro Sasada Kanagawa Cancer Center Research Institute)

O-72 Tumor-promoting function of PEG10 and its potential for inducing anti-tumor helper T cells in head and neck squamous cell carcinoma

頭頸部扁平上皮癌における PEG10 の発現・機能解析および PEG10 特異的ヘルパー T 細胞の抗腫瘍効果の検討

◯Toshihiro Nagato[1)], Hiroki Komatsuda[1,2)], Takahiro Inoue[1,2)], Nanami Ujiie[1,3)], Ryusei Yoshino[1,3)], Hiroyoshi Nozaki[1,4)], Akemi Kosaka[1)], Takayuki Ohkuri[1)], Miki Takahara[2)], Hiroya Kobayashi[1)]

[1)]旭川医科大学 病理学講座免疫病理分野, [2)]旭川医科大学 耳鼻咽喉科・頭頸部外科学講座,

[3)]旭川医科大学病院 呼吸器・乳腺外科, [4)]旭川医科大学 皮膚科学講座

O-73 A high-bioavailability formulation of nobiletin enhances the antitumor efficacy of Antibody-Drug Conjugates

高吸収製剤を用いた nobiletin による抗体薬物複合体の抗腫瘍増強効果

◯Tomoya Masuoka[1)], Takumi Iwasawa[2)], Masumi Iwashita[3)], Kojiro Hashizume[3)], Kazunori Kato[1,2)]

[1)]東洋大学大学院 健康スポーツ科学研究科 栄養科学専攻, [2)]東洋大学 ライフイノベーション研究所, [3)]花王株式会社

O-74 Identification of common cancer antigens useful for cancer vaccine and CAR/TCR-T cell therapy to primary colorectal cancer and colorectal cancer liver metastases

◯Jun Kataoka[1)], Kazumasa Takenouchi[1)], Toshihiro Suzuki[1)], Kazunobu Ohnuki[1)], Yuichiro Tsukada[2)], Masaaki Ito[2)], Naoto Gotohda[3)], Tetsuya Natatsura[1)]

[1)] Division of Cancer Immunotherapy, Exploratory Oncology Research and Clinical Trial Center, National Cancer Center, [2)] Department of Colorectal Surgery, National Cancer Center Hospital East,

[3)] Department of Hepatobiliary and Pancreatic Surgery, National Cancer Center Hospital East

O-75 Expanding the Application of Shark IgNAR Antibodies for Next-next-generation Cancer Antibody Therapeutics

◯Yuki Nitta[1,2)], Wataru Takagi[3)], Susumu Hyodo[3)], Masahiro Yasunaga[1,2)]

[1)] Graduate School of Frontier Sciences The University of Tokyo, [2)] National Cancer Center,

[3)] Atmosphere and Ocean Research Institute The University of Tokyo

O-76 Neoantigen identification with NESSIE for personalized cancer vaccine

NESSIE を用いたネオ抗原同定と個別化がんワクチンへの応用

◯Serina Tokita, Minami Fusagawa, Toshihiko Torigoe, Yoshihiko Hirohashi, Takayuki Kanaseki

札幌医科大学 医学部 医学科 病理学講座 病理学第一分野

O-77 Exploration of adjuvants to enhance mRNA cancer vaccine efficacy

◯Haruki Hirata[1,2)], Toshiro Hirai[1,2,3,4)], Yasuo Yoshioka[1,2,3,4,5,6,7)]

[1)] Graduate School of Pharmaceutical Sciences, The University of Osaka,

[2)] Research Institute for Microbial Diseases, The University of Osaka,

[3)] Institute for Open and Transdisciplinary Research Initiatives, The University of Osaka,

[4)] Center for Advanced Modalities and DDS, The University of Osaka,

[5)] Global Center for Medical Engineering and Informatics, The University of Osaka,

[6)] Center for Infectious Disease Education and Research, The University of Osaka,

[7)] The Research Foundation for Microbial Diseases of Osaka University (current affiliation)

▌Oral Session 14
Antibody therapy/Vaccination (2)
一般演題 14
抗体・ワクチン療法（2）

July 25(Fri.)　13：35 ～ 14：25　3rd venue

座長：小林 博也（Hiroya Kobayashi　Asahikawa Medical University Department of Pathology）

O-78 Sequential self-assembly of tannic acid and phenylboronic acid-modified copolymers boosting the cancer immune therapeutic effect of OVA antigen

◯Anudari Batbayar[1,2)], Ryotaro Ohashi[1)], Haochen Guo[3)], Yuto Honda[1,2,3)], Yutaka Miura[1,2)], Nobuhiro Nishiyama[1,2,3)]

[1)] Institute of Science Tokyo Department of Life Science and Technology Science and Technology for Health Care and Medicine course, [2)] 東京科学大学 総合研究院 化学生命科学研究所, [3)] Innovation Center of NanoMedicine

O-79 Long-term persistence of WT1-specific cytotoxic-T-lymphocyte clones in peripheral blood and brain tissue of long-term survivors with brain tumors

◯Jun Nakata[1)], Natsuki Nakamura[2)], Daisuke Motooka[3)], Chisato Yokota[2)], Soyoko Morimoto[4)], Fumihiro Fujiki[5)], Hiroko Nakajima[6)], Akihiro Tsuboi[5)], Yusuke Oji[1)], Yoshihiro Oka[4)], Haruo Sugiyama[6)]

[1)] Department of Clinical Laboratory and Biomedical Sciences, Osaka University,
[2)] Department of Neurosurgery, Osaka University, [3)] Genome Information Research Center, Osaka University,
[4)] Department of Cancer Stem Cell Biology, Osaka University,
[5)] Department of Cancer Immunotherapy, Osaka University,
[6)] Department of Cancer Immunology, Osaka University

O-80 Non-covalent Decoration of Trispecific T-cell Engagers on PEGylated Micellar Nanocarriers for Prolonged Cancer Immunotherapy

◯Yu-Kai Liang[1)], Yu-Ren Wang[2)], Hao-Yi Hsu[2)], Hong-Liang Lin[2)]

[1)] Department of Pharmacy, Chia Nan University of Pharmacy and Science, Taiwan,
[2)] School of Pharmacy, College of Pharmacy, Kaohsiung Medical University, Kaohsiung, Taiwan

O-81 Data-Driven Engineering of a High-Affinity Soluble T-Cell Receptor Targeting a Neoantigen Using High-Throughput Interaction Analysis

◯Ryo Matsunaga[1,2)], Tomoki Miura[1)], Kouhei Tsumoto[1,2,3)]

[1)] Department of Bioengineering, School of Engineering, The University of Tokyo,
[2)] Department of Chemistry and Biotechnology, School of Engineering, The University of Tokyo,
[3)] The Institute of Medical Science, The University of Tokyo

O-82 Peptide immunotherapy targeting FAP-positive fibroblasts augments tumor antigen-specific immunotherapy

◯Keiko Udaka[1)], Toshihiro Komatsu[1)], Yuki Tanaka[2)], Kazuhide Onoguchi[2)], Yoshiko Yamashita[2)], Ryo Tanaka[3)], Yoichiro Iwase[3)]

[1)] Department of Immunology, School of Medicine, Kochi University,
[2)] AI Drug Development Division, NEC Corporation, [3)] R&D Department, TERUMO Corporation

O-83 Analysis of TCR-T Vax therapy based on HANG vax, resulting in cure of aggressive solid tumors and long-term suppression of recurrence

ヒアルロン酸ナノ粒子ワクチンを用いた TCR-T Vax 療法の難治性固形がん治癒と長期再発抑止機構の解析

◯Fumiyasu Momose[1)], Makiko Yamane[1)], Junko Nakamura[1)], Linan Wang[1)], Keiki Nagaharu[2)], Kohei Yabuuchi[3)], Shogo Aso[3)], Takero Kurosawa[3,4)], Toru Katsumata[3)], Tsuyoshi Shimoboji[3)], Takashi Nakai[3,4)], Yoshihiro Miyahara[1)]

[1)] 三重大学 大学院医学系研究科 個別化がん免疫治療学, [2)] Lund Stem Cell Center, Lund University,
[3)] 旭化成株式会社 ライフイノベーション事業本部 ヘルスケアマテリアル事業部 新製品開発推進室,
[4)] DiveRadGel Co., Ltd.

Oral Session 15
Cell therapy/Gene therapy (2)
一般演題 15
細胞療法・遺伝子療法（2）

July 25(Fri.)　14：35 ～ 15：35　3rd venue

座長：越智 俊元（Toshiki Ochi　Department of Hematology, Clinical Immunology and Infectious Diseases, Ehime University Graduate School of Medicine)

O-84　Exploring chimeric antigen receptor macrophages as a novel therapy for cancer

◯Tsung-Hua Hsieh
Department of Medical Research, E-Da Hospital, Kaohsiung, Taiwan

O-85　CAR-NK cells derived from cord blood originate mainly from CD56-CD7+CD34-HLA-DR-Lin- NK progenitor cells

臍帯血由来 CAR NK 細胞は CD56-CD7+CD34-HLA-DR-Lin- NK progenitor 細胞から産生される

◯Yosuke Kogue[1,2)], Tansli Wibowo[3)], Shunya Ikeda[4)], Makiko Suga[2)], Shuhei Kida[2)], Kumi Shibata[2)], Kazuhito Tsutsumi[2)], Hiraku Murakami[2)], Yasutaka Ueda[2)], Hisashi Kato[2)], Kentaro Fukushima[2)], Jiro Fujita[2)], Tomoaki Ueda[2)], Shinsuke Kusakabe[2)], Akihisa Hino[2)], Michiko Ichii[2)], Chihaya Imai[5)], Daisuke Okuzaki[6)], Atsushi Kumanogoh[3,4,7,8)], Naoki Hosen[2,4,7,8)]
[1)]大塚製薬株式会社 大阪創薬研究センター 創薬モダリティ研究所, [2)]大阪大学 大学院医学系研究科 血液・腫瘍内科学,
[3)]大阪大学 大学院医学系研究科 呼吸器・免疫内科学, [4)]大阪大学 免疫学フロンティア研究センター (iFReC),
[5)]富山大学 学術研究部医学系 小児科学講座, [6)]大阪大学 微生物病研究所,
[7)]大阪大学 先導的学際研究機構 (OTRI) 生命医科学融合フロンティア研究部門,
[8)]大阪大学 感染症総合教育研究拠点 (CiDER)

O-86　*PiggyBac*-transfected, ACE-stimulated anti-CD19 CAR-T cells showed less differentiated phenotype than the initial aphresed mononuclear cells: early data from phase I clinical trials of NHL and SLE patients

◯Thanyavi Chinsuwan[1,5)], Wuttichai Maneekaew[2,5)], Wonngarm Kittanamongkolchai[3)], Yoshiyuki Takahashi[4)], Koramit Suppipat[1,2,5)], Supannikar Tawinwung[1,2,5)]
[1)]Center of Excellence in Cellular Immunotherapy, Chulalongkorn University, Bangkok, Thailand,
[2)]Cell And Gene Therapy Manufacturing Center, King Chulalongkorn Memorial Hospital, Bangkok, Thailand,
[3)]Maha Chakri Sirindhorn Clinical Research Center, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand, [4)]Department of Pediatrics, Nagoya University Graduate School of Medicine, Nagoya, Japan,
[5)]Thailand Hub of Talents in Cancer ImmunotherapyThailand Hub of Talents in Cancer Immunotherapy

O-87　Exploring potential benefits of exploiting TCR machinery to CAR-T cells

◯Meiou Liu, Yasushi Akahori, Yoshihiro Miyahara
Department of Personalized Cancer Immunotherapy, Mie University Graduate School of Medicine

O-88　Identification of genes responsive for lipid nano particle-based mRNA transfection by CRISPR/Cas9 screens

◯Hao Chen[1)], Hiroki Tanaka[2,3)], Shurui Chen[1)], Barakat Carolyne[1,4)], Yoshie Sato[1)], Hiroyoshi Nishikawa[1,4,5)], Hidetaka Akita[2,3)], Yoshiki Akatsuka[1)]
[1)]Department of Immunology, Nagoya University Graduate School of Medicine,
[2)]Laboratory of DDS Design and Drug Disposition, Graduate School of Pharmaceutical Sciences, Tohoku University,
[3)]Center for Advanced Modalities and DDS, Osaka University,
[4)]Division of Cancer Immunology, Research Institute, National Cancer Center,
[5)]Division of Cancer Immune Multicellular System Regulation, Center for Cancer Immunotherapy and Immunobiology, Kyoto University Graduate School of Medicine

O-89 Novel Strategies in Adoptive T Cell Therapy to Address Tumor Heterogeneity with low-molecular-weight compounds

◯Kiyoshi Yasui[1)], Daisuke Ehara[1,2)], Mitsuhiro Yoneda[1)], Situo Deng[1)], Sachiko Okamoto[3)], Yasunori Amaishi[3)], Daisuke Muraoka[4)], Naohisa Ogo[5)], Akira Asai[5)], Hiroyuki Murota[2)], Hiroaki Ikeda[1)]

[1)]長崎大学大学院医歯薬学総合研究科腫瘍医学, [2)]長崎大学大学院医歯薬学総合研究科皮膚病態学分野,
[3)]タカラバイオCDMセンター第3部, [4)]愛知県がんセンター研究所 腫瘍免疫制御トランスレーショナルリサーチ分野,
[5)]静岡県立大学大学院薬学研究院創薬探索センター

▌Oral Session 16
Cell therapy/Gene therapy (4)
一般演題 16
細胞療法・遺伝子療法（4）

July 25(Fri.)　15：35 ～ 16：25　3rd venue

座長：伊藤 雄介（Yusuke Ito Division of Tumor Immunology, Institute for Advanced Medical Research, Keio University School of Medicine)

O-90 Development of Fifth-Generation Chimeric Antigen Receptor T Cells Targeting B7-H3 and Secreting Anti-PD-L1 scFv for Enhanced Cytotoxicity Against Breast Cancer

◯Pavarisa Pusurinkham[1)], Piriya Luangwattananun[2,3)], Jatuporn Sujjitjoon[2,3)], Pornpimon Yuti[2,3)], Thanawitch Sangkheereeput[2,3)], Krissada Natungnuy[2,3)], Mutita Junking[2,3)], Pa-thai Yenchitsomanus[2,3)]

[1)]Graduate Program in Immunology, Department of Immunology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand,
[2)]Siriraj Center of Research Excellence for Cancer Immunotherapy (SiCORE-CIT), Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand,
[3)]Division of Molecular Medicine, Research Department, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

O-91 Anti-Metastatic Efficacy of B7-H3 Targeted CAR-T Cell Therapy as an Adjuvant Treatment for Triple-Negative Breast Cancer

◯Tatsuya Kobayashi[1,2)], Franziska Hausmann[2)], Luke Maggs[2)], Max N. Meyer[2)], Shahrzad Arya[3)], Cristina R. Ferrone[3)], Xinhui Wang[3)], Soldano Ferrone[3)], Takakazu Kawamata[1)], Dan G. Duda[2)]

[1)]Department of Neurosurgery, Tokyo Women's medical university,
[2)]Edwin. L. Steele Laboratories for Tumor Biology, Department of Radiation Oncology, Massachusetts General Hospital and Harvard Medical School,
[3)]Division of Surgical Oncology, Department of Surgery, Massachusetts General Hospital, Harvard Medical School

O-92 Efficiently Targeting Folate Receptor Alpha-Positive Ovarian Cancer by Human Antibody VH Domain-based Chimeric Antigen Receptor (CAR)

◯Nithidol Sakunrangsit[1)], Kannika Khantasup[2)], Koramit Suppipat[1,3,5)], Nattiya Hirankarn[4,5)], Supannikar Tawinwung[1,5,6)]

[1)] Center of Excellence in Cellular Immunotherapy, Chulalongkorn University, Bangkok, Thailand,
[2)] Department of Biochemistry and Microbiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand,
[3)] Department of Research Affairs, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand,
[4)] Center of Excellence in Immunology and Immune mediated Diseases, Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand,
[5)] Thailand Hub of Talents in Cancer Immunotherapy (TTCI), Bangkok, Thailand,
[6)] Department of Pharmacology and Physiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand

O-93 Bystander CAR^{-}CD8^{+} T cells in a CAR-T cell product can enhance antitumor activity of bispecific antibody

◯Junichi Kato[1)], Tatsuya Konishi[2)], Takatsugu Honda[3)], Masaki Maruta[1)], Shogo Nabe[1)], Yuya Masuda[1)], Meika Matsumoto[1)], Natsumi Kawasaki[1)], Yukihiro Miyazaki[1)], Yasukazu Doi[2,3)], Yasunori Takasuka[3)], Jun Yamanouchi[2)], Toshiki Ochi[1,4)], Katsuto Takenaka[1)]

[1)] Department of Hematology, Ehime University Graduate School of Medicine,
[2)] Division of Blood Transfusion and Cell Therapy, Ehime University Hospital,
[3)] Department of Clinical Laboratory, Ehime University Hospital,
[4)] Division of Immune Regulation, Proteo-Science Center, Ehime University

O-94 Antitumor Activities of Chimeric Antigen Receptor T Cells Targeting Mucin-1 with Self-released Anti-PD-1 IgG Antibody

◯Nattarika Khuisangeam[1)], Thananya Intanachai[1,2,3)], Chatikorn Boonkrai[4)], Tanapati Phakham[4)], Trairak Pisitkun[3,4)], Rattapoom Thaiwong[2,3,5)], Thanyavi Chinsuwan[2,3,6)], Koramit Suppipat[2,3,7)], Nattiya Hirankarn[3,5)], Supannikar Tawinwung[2,3,8)]

[1)] Medical Microbiology, Interdisciplinary and International Program, Graduate School, Chulalongkorn University, Bangkok, Thailand, [2)] Cellular Immunotherapy Research Unit, Chulalongkorn University, Bangkok, Thailand,
[3)] Thailand Hub of Talents in Cancer Immunotherapy (TTCI), Bangkok, Thailand,
[4)] Center of Excellence in Systems Biology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand,
[5)] Chulalongkorn Comprehensive Cancer Center, King Chulalongkorn Memorial Hospital, Bangkok, Thailand,
[6)] Department of Microbiology, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand,
[7)] Department of Research Affairs, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand,
[8)] Department of Pharmacology and Physiology, Faculty of Pharmaceutical Sciences, Chulalongkorn University, Bangkok, Thailand

Oral Session 17
Cell therapy/Gene therapy (5)
一般演題 17
細胞療法・遺伝子療法（5）

July 25(Fri.)　16：25 ～ 17：15　3rd venue

座長：倉光 俊一郎（Shunichiro Kuramitsu　Department of Neurosurgery, Nagoya Medical Center）

O-95　Enhancing lentiviral based transduction efficiency of CD19 CAR-T cells using mRNA technology

◯Proudphat Jumnongjit[1)], Supannikar Tawinwung[2,3,4)], Koramit Suppipat[2,3,5)], Thanyavi Chinsuwan[2,3,5)]

[1)]Social and Administrative Pharmacy, Master of Science Program in Research for Enterprise Faculty of Pharmacy Chulalongkorn University, Bangkok, Thailand,

[2)]Cellular Immunotherapy Research Unit, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand,

[3)]Thailand Hub of Talents in Cancer Immunotherapy, Bangkok, Thailand,

[4)]Department of Pharmacology and Physiology, Faculty of Pharmaceutical Science, Chulalongkorn University, Bangkok, Thailand,

[5)]Department of Research Affairs, Faculty of Medicine, Chulalongkorn University, Bangkok, Thailand

O-96　BACH2 defines the hierarchy of T-cell stemness and controls antitumor immunity of CAR T cells

◯Tuoqi Wu

Department of Immunology, University of Texas Southwestern Medical Center, USA

O-97　Metabolomic analysis of CD19CAR-T with CD79A/CD40 as a co-stimulatory domain

メタボローム解析を用いた CD79A/CD40 を共刺激ドメインとして有する CD19CAR-T の代謝検討

◯Yuki Takeuchi[1)], Seitaro Terakura[1)], Kohei Ishigiwa[1)], Shiho Hirano[1)], Hirofumi Yokota[1)], Shihomi Kuwano[1)], Masahide Osaki[1)], Yoshitaka Adachi[1)], Kanae Imai[1)], Julamanee Jakrawadee[2)], Ryo Hanajiri[1)], Makoto Murata[1)], Hitoshi Kiyoi[1)]

[1)]名古屋大学大学院 医学系研究科 血液・腫瘍内科学, [2)]Prince of Songkla University, Songkla, Thailand

O-98　A simple and early prediction for severe CAR-T-related adverse event after axi-cel infusion

◯Hiroya Wakabayashi, Seitaro Terakura, Kohei Ishigiwa, Fumiya Ohara, Shiho Hirano, Hirofumi Yokota, Shihomi Kuwano, Katsuya Furukawa, Kazuyuki Shimada, Takahiko Sato, Ryo Hanajiri, Hitoshi Kiyoi

Department of Hematology and Oncology, Nagoya University Graduate School of Medicine.

O-99　Development of optimized CAR-T Cell Therapy for Solid Tumors: Impact of Functionally Fine-Tuned scFvs via the Eumbody System

◯Afsana Islam[1)], Larina Shen[1)], Daiki Fujita[1)], Toshiki Ochi[2,3)], Katsuto Takenaka[2)], Kenji Nakamaru[1)]

[1)]Optieum Biotechnologies Inc., Japan,

[2)]Dept. of Hematology, Clinical Immunology and Infectious diseases, Ehime University Graduate School of Medicine,

[3)]Division of Immune Regulation, Proteo- Science Center, Ehime University

Oral Session 18
Cell therapy/Gene therapy (3)
一般演題 18
細胞療法・遺伝子療法（3）

July 26(Sat.)　8：25 ～ 9：15　3rd venue

座長：宮原 慶裕（Yoshihiro Miyahara　Mie University Graduate School of Medicine）

O-100 Use of Whitlow/218 linker in the scFv of self-activating CAR improves in vitro killing activity

◯Taku Kouro[1,2)]，Daisuke Hoshino[3)]，Tetsuro Sasada[1,2)]

[1)] Division of Cancer Immunothrapy, Kanagawa Cancer Center Research Institute,

[2)] Cancer Vaccine and Immunotherapy Center, Kanagawa Cancer Center,

[3)] Cancer Biology Division, Kanagawa Cancer Center Research Institute

O-101 Non-clinical efficacy evaluation of active conformation of integrin β7 CAR-T cells utilizing an original manufacturing process with improves persistence.

Persistence を改善させる独自製造法を活用した活性型インテグリンβ7 CAR-T 細胞の非臨床薬効評価

◯Masayuki Sone[1)]，Ryosuke Taga[1)]，Yuzuru Okairi[1)]，Sayaka Tsuzuki[1)]，Yuto Okumura[1)]，Shiori Egashira[1)]，Hiroki Akamine[1)]，Ryo Masumura[1)]，Nozomi Kuwano[1)]，Hasumi Ura[1)]，Rina Tanaka[1)]，Hironori Matsuyama[1)]，Yoshimi Kuroiwa[1)]，Naoki Hosen[2,3,4,5)]，Toshiki Sudo[6)]

[1)] 大塚製薬株式会社 大阪創薬研究センター 創薬モダリティ研究所,

[2)] 大阪大学 免疫学フロンティア研究センター（iFReC），[3)] 大阪大学 大学院医学系研究科 血液・腫瘍内科学,

[4)] 大阪大学 先導的学際研究機構（OTRI）生命医科学融合フロンティア研究部門,

[5)] 大阪大学 感染症総合教育研究拠点（CiDER），[6)] 大塚製薬株式会社

O-102 Development of a simple CAR-T manufacturing method combining RetroNectin and G-Rex

RetroNectin と G-Rex を組み合わせたシンプルな CAR-T 製造法の開発

◯Yasunori Amaishi，Izumi Maki，Seina Inui，Sachiko Okamoto

タカラバイオ株式会社 CDMセンター第3部

O-103 Regulation of T cell phenotype through the development of new xenofree T cell culture media.

新規ゼノフリー T 細胞培地開発による T 細胞フェノタイプの制御

◯Hiromichi Yamashiro[1)]，Yuka Tanaka[1)]，Haruka Sasano[2)]，Momoko Akiyama[2)]，Nozomi Ito[2)]

[1)] 株式会社 マイオリッジ 研究開発事業本部,

[2)] 三菱ケミカル株式会社 Science & Innovation Center イノベーション戦略本部 メディカル・フードコアプロジェクト部

O-104 Modification of CAR Structure to Enhance the Efficacy of CD98CAR-T
CD98 CAR-T 有効性向上のための CAR 構造改変

◯Yuzuru Okairi[1)], Masayuki Sone[1)], Hasumi Ura[1)], Rina Tanaka[1)], Hiroki Akamine[1)], Ryo Masumura[1)], Nozomi Kuwano[1)], Hiromi Mori[1)], Yosuke Kogue[1)], Shiori Egashira[1)], Takashi Watanabe[1)], Yuto Okumura[1)], Sayaka Tsuzuki[1)], Hikaru Nishimori[1)], Hironori Matsuyama[1)], Yoshimi Kuroiwa[1)], Naoki Hosen[2,3,4,5)], Toshiki Sudo[6)]

[1)]大塚製薬株式会社 大阪創薬研究センター 創薬モダリティ研究所,
[2)]大阪大学 免疫学フロンティア研究センター (iFReC), [3)]大阪大学大学院医学系研究科 血液・腫瘍内科学,
[4)]大阪大学 先導的学際研究機構 (OTRI) 生命医科学融合フロンティア研究部門,
[5)]大阪大学 感染症総合教育研究拠点 (CiDER), [6)]大塚製薬株式会社

■ Oral Session 19
Cell therapy/Gene therapy (1)
一般演題 19
細胞療法・遺伝子療法 (1)

July 26(Sat.) 9:15 ～ 10:25 3rd venue

座長：清野 研一郎 (Ken-ichiro Seino Hokkaido Univerisity)

O-105 Potent Anti-Tumor Activity of GD2-Targeted Fifth-Generation CAR-T Cells with PD-L1 Blockade in Retinoblastoma

◯Pornpimon Yuti[1)], Katesara Kongkla[1,2)], Nunghathai Sawasdee[1,2)], Yupanun Wutti-in[1,3)], Nattaporn Phanthaphol[1,4)], Mutita Junking[1,2)], Pa-thai Yenchitsomanus[1,2)], Jatuporn Sujjitjoon[1,2)]

[1)]Siriraj Center of Research Excellence for Cancer Immunotherapy, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand,
[2)]Division of Molecular Medicine, Research Department, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand,
[3)]Division of Transfusion Sciences, Department of Medical Technology Faculty of Associated Medical Sciences, Chiang Mai University,
[4)]Division of Immunology, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok, Thailand

O-106 Anti-tumor effectiveness of fully human GD2-targeted CAR T-cells with a safety control mechanism for retinoblastoma

◯Katesara Kongkla[1)], Pornpimon Yuti[1,2)], Krissada Natungnuy[1,2)], Yupanun Wutti-in[1,3)], Nunghathai Sawasdee[1,2)], Aussara Panya[1,4)], Montarop Yamaphai[5)], Pa-thai Yenchitsomanus[1,2)], Jatuporn Sujjitjoon[1,2)]

[1)]Research Department, Faculty of Medicine Siriraj Hospital,Mahidol University, Siriraj Center of Research Excellence for Cancer Immunotherapy (SiCORE-CIT), Bangkok, Thailand,
[2)]Division of Molecular Medicine, Research Department, Faculty of Medicine Siriraj Hospital, Mahidol University, Bangkok,Thailand,
[3)]Division of Transfusion Science, Department of Medical Technology, Faculty of Associated Medical Sciences, Chiang Mai University, Chiang Mai , Thailand,
[4)]Department of Biology, Faculty of Science, Chiang Mai University, Chiang Mai, Thailand,
[5)]Molecular Biotechnology Laboratory, School of Biotechnology, Institute of Agricultural Technology, Suranaree University of Technology, Nakhon Ratchasima, Thailand

O-107 Antibody-Dependent Cellular Cytotoxicity of iPS Cell-Derived Natural Killer T Cells by Anti-GD2 mAb for Neuroblastoma

◯Katsuhiro Nishimura[1)], Takahiro Aoki[1,3,4)], Midori Kobayashi[1)], Mariko Takami[1)], Daisuke Katsumi[1,2)], Ko Ozaki[1)], Keita Ogawa[1)], Haruhiko Koseki[4)], Tomoro Hishiki[2)], Shinichiro Motohashi[1)]

[1)] Department of Medical Immunology, Chiba University, [2)] 千葉大学大学院 医学研究院 小児外科学,
[3)] 千葉大学大学院 医学研究院 小児病態学, [4)] 理化学研究所 免疫器官形成研究チーム

O-108 KIR Ligand Mismatched Allogeneic Cord Blood Transplantation Reduces Bone Marrow Relapse Resuting in Improved Survival in High-Risk Stage M Neuroblastoma

◯Shinsuke Kataoka, Nobuhiro Nishio, Daiki Yamashita, Yukari Otsuka, Kotaro Ogawa, Daichi Sajiki, Ayako Yamamori, Kotaro Narita, Noriko Shimasaki, Hideki Muramatsu, Yoshiyuki Takahashi

Department of Pediatrics, Nagoya University Graduate School of Medicine

O-109 Blockade of AhR sigaling augments the efficacy of NKT-cell based immunotherapy

◯Mariko Takami, Shinichiro Motohashi

Department of Medical Immunology, Graduate School of Medicine, Chiba University

O-110 iPS cell-derived CD4 CAR-iNKT cells for the development of “off-the-shelf” cell products.

“Off-the-shelf” 型細胞製剤を目指した iPS 細胞由来 CD4 陽性 CAR-iNKT 細胞の開発

◯Kyosuke Izumi[1,2)], Akihiro Ishikawa[1)], Shin Kaneko[1)]

[1)] 京都大学 iPS細胞研究所 増殖分化機構研究部門, [2)] 京都大学 大学院 医学研究科

O-111 Fast on-rates of chimeric antigen receptors improve the sensitivity to peptide MHC via antigen rebinding

◯Hiroyuki Hiratsuka[1,3)], Yasushi Akahori[1)], Shingo Maeta[2)], Yuriko Egashira[2)], Hiroshi Shiku[1,4)]

[1)] Graduate School of medicine, Mie University, [2)] Bio-Diagnostic Reagent Technology Center, Sysmex Corporation,
[3)] Present address: Graduate School of Bioresources, Mie University, [4)] deceased 4 September 2022

▌Oral Session 20
Cell therapy/Gene therapy (6)
一般演題 20
細胞療法・遺伝子療法（6）

July 26(Sat.) 10 : 25 ～ 11 : 25 3rd venue

座長：佐古田 幸美（Yukimi Sakoda Yamaguchi Graduate School of Medicine, Department of Immunology)

O-112 Development of long-term culture of CD62L-high expressing human lymphocytes

◯Eri Oda[1)], Ryosuke Shinohara[1)], Eiko Omichi[1)], Shin-ichi Yamada[1)], Xia Ling[1)], Hiroko Oda[1)], Nobuyuki Udagawa[3)], Yoshinori Komagata[2)], Harunori Oda[1)]

[1)] Medical Corporation Ishinkai Oda Clinic, [2)] Department of Nephrology and Rheumatology. Kyorin University,
[3)] Department of Hard Tissue Research. Matsumoto Dental University

O-113 Transduction of Batf family members provides distinct functions to CD8+ T cells and their anti-tumor activity

Batf ファミリー転写因子の過剰発現は CD8+ T 細胞に異なる機能を付与して、抗腫瘍活性を亢進させる

◯Mina Kumode[1,2)], Kenta Kondo[1)], Makoto Murata[2)], Yasutoshi Agata[1)]
[1)]滋賀医科大学医学部 生化学・分子生物学講座 分子生理化学部門, [2)]滋賀医科大学医学部 内科学講座 血液内科

O-114 PIGR enhances susceptibility of tumor cells to cytotoxicity of CD8+ T cells

◯Chenxu Jiang[1)], Kiyoshi Yasui[1)], Situo Deng[1)], Mitsuhiro Yoneda[1)], Yasuhiro Nagata[2)], Hiroaki Ikeda[1)]
[1)]Department of oncology, Graduate School of Biomedical Sciences, Nagasaki University,
[2)]Department of Community Medicine, Nagasaki University Graduate School of Biomedical Sciences, Nagasaki, Japan

O-115 Cell therapy using CCL19-expressing allogeneic mesenchymal stem cells exerts robust anti-tumor effect in mouse model

◯Yuichi Iida, Mamoru Harada, Yasuyuki Saito
Department of Immunology, Faculty of Medicine, Shimane University

O-116 Development of a high-throughput platform for the rapid identification of neoantigens and their cognate TCRs

ネオアンチゲンとネオアンチゲン特異的 TCR を迅速に同定するスクリーニングプラットフォームの構築

◯Koji Nagaoka, Yukari Kobayashi, Kazuhiro Kakimi
近畿大学 医学部 免疫学教室

O-117 Harnessing Antigen-Independent TNF-α Mechanisms to Overcome Tumor Heterogeneity in Adoptive T Cell Therapy

◯Situo Deng[1)], Daisuke Muraoka[1,3)], Takaaki Nakatsukasa[1,2)], Kiyoshi Yasui[1)], Mitsuhiro Yoneda[1)], Naozumi Harada[4)], Shinichi Sawada[5)], Kazunari Akiyoshi[6)], Hiroaki Ikeda[1)]
[1)]Department of Oncology, Nagasaki University, [2)]長崎大学 腫瘍外科, [3)]愛知県がんセンター 腫瘍免疫制御分野, [4)]ユナイテッド・イミュニティ株式会社, [5)]千葉大学 cSIMVa, [6)]京都大学 大学院 免疫学

▌Oral Session 21
Innate Immunity/Dendritic cell
一般演題 21
自然免疫・樹状細胞

July 26(Sat.) 13 : 25 ～ 14 : 25 3rd venue

座長：宇都 倫史（Tomofumi Uto Division of Immunology, Department of Infectious Diseases, Faculty of Medicine, University of Miyazaki)

O-118 Induction of Cancer-Specific T Cell Responses by Dendritic Cells and Cancer Progression Control Based on the Engineering of an Immunogenic Tumor Microenvironment

樹状細胞によるがん特異的 T 細胞応答の誘導と免疫原性がん微小環境の構築に基づくがん進展制御

◯Tomohiro Fukaya, Tomofumi Uto, Shuya Mitoma, Katsuaki Sato
宮崎大学 医学部医学科 感染症学講座 免疫学分野

O-119 Clec4A4 acts as immune checkpoint molecule expressed on conventional dendritic cells to suppress tumor immunity

新規樹状細胞発現免疫チェックポイント分子 Clec4A4 によるがん免疫制御機構

◯Tomofumi Uto, Tomohiro Fukaya, Shuya Mitoma, Katsuaki Sato
宮崎大学 医学部 医学科 感染症学講座 免疫学分野

O-120 Co-treatment with the low molecular weight compound KIN1148 enhances STING-targeted immune responses

◯Takayuki Ohkuri, Akemi Kosaka, Nanami Ujiie, Takahiro Inoue, Ryusei Yoshino, Hiroyosi Nozaki, Toshihiro Nagato, Hiroya Kobayashi
旭川医科大学 医学部 病理学講座免疫病理分野

O-121 Modulation of mtDNA Dynamics by Targeted Therapy Induces Immunogenic Cell Death in mtDNA-Enriched Cancer

◯Yasuki Adachi, Shohei Koyama, Hiroyoshi Nishikawa, Kosuke Tanaka
国立がん研究センター先端医療センター

O-122 Abscopal Effect of Oncolytic HSV-1 is Dependent on Plasmacytoid Dendritic Cells

形質細胞様樹状細胞が介在するがん治療用 HSV-1 の遠隔効果発現

◯Shumpei Uchida[1)], Katsuaki Sato[2)], Ryutaro Fukui[3)], Kensuke Miyake[3)], Tomoki Todo[4)], Norimitsu Kadowaki[1)]
[1)]香川大学医学部 血液・免疫・呼吸器内科学, [2)]宮崎大学医学部 感染症学講座 免疫学分野,
[3)]東京大学医科学研究所 感染遺伝学分野, [4)]東京大学医科学研究所 先端医療研究センター 先端がん治療分野

O-123 Development of spleen-targeting mRNA-loaded lipid nanoparticle with immune-stimulative activity

◯Xinping Meng[1)], Jessica Anindita[1)], Hiroki Tanaka[1)], Mizuho Hori[1)], Masaki Gomi[2)], Yuta Nakai[3)], Yu Sakurai[1)], Hidetaka Akita[1)]
[1)]Laboratory of Drug Delivery, Graduate School of Pharmaceutical Sciences, Tohoku University,
[2)]Graduate School of Pharmaceutical Sciences, Tohoku University,
[3)]Graduate School of Pharmaceutical Sciences, Chiba University,
[4)]Life Science Research Laboratory, NOF CORPORATION

▌Oral Session 22
Biomarkers/Immune monitoring
一般演題 22
バイオマーカー・免疫モニタリング

July 26(Sat.) 14 : 25 ～ 15 : 25 3rd venue

座長：加藤 和則（Kazunori Kato Department of Health and Sports Sciences, Toyo University）

O-124 Enzyme-labeled antigen method: development and application of the novel approach for identifying plasma cells locally producing disease-specific antibodies in inflammatory lesions

病変組織の特異抗体産生細胞を可視化する酵素抗原法の技術開発

◯Yasuyoshi Mizutani[1)], Kazuya Shiogama[2)], Toshiyuki Takeuchi[1)], Atsuko Niimi[1)], Siripan Limsirichaikul[1)], Ken-ichi Inada[3)], Motoshi Suzuki[1)], Yutaka Tsutsumi[4)]
[1)]藤田医科大学 医学部 分子腫瘍学, [2)]藤田医科大学 医療科学部 臨床教育連携ユニット・病理組織細胞学分野,
[3)]藤田医科大学 医学部 病理診断学, [4)]つつみ病理診断科クリニック

O-125 Proteogenomics-based comprehensive profiling of autoantibody-bound novel cancer antigens

プロテオゲノミクスに基づく自己抗体結合新規がん抗原の網羅的なプロファイリング

◯Hisanori Isomura, Yasuhide Okumoto, Yongwoon Han, Ayumu Taguchi
名古屋市立大学大学院 医学研究科 分子腫瘍学

O-126 Autoantibody Spark Response Predicts Prognosis of CRT+ICI Therapy in NSCLC

自己抗体スパーク応答は NSCLC における CRT + ICI 療法の予後を予測する

◯Takeru Mori[1)], Mio Kitagawa[2)], Tomokazu Hasegawa[2)], Masanori Someya[2)], Takaaki Tsuchiya[2)], Toshio Gocho[2)], Tomoko Honjo[1)], Mirei Date[1)], Mariko Morii[1)], Ai Miyamoto[1)], Junichiro Futami[1)]
[1)]岡山大学 ヘルスシステム統合科学研究科, [2)]札幌医科大学医学部 放射線医学講座

O-127 ICOS$^+$ CD4 T cells and CXCL13 in peripheral blood are predictive factors for the development of anti-PD-(L)1 therapy-induced pneumonitis in cancer patients

◯Mari Yokoi[1,2)], Kosaku Murakami[1)], Tomonori Yaguchi[3)], Kenji Chamoto[3)], Hiroaki Ozasa[4)], Hironori Yoshida[4)], Mirei Shirakashi[5)], Katsuhiro Ito[6)], Yoshihiro Komohara[7)], Yukio Fujiwara[7)], Hiromu Yano[4)], Tatsuya Ogimoto[4)], Daiki Hira[2)], Tomohiro Terada[2)], Toyohiro Hirai[4)], Hirotake Tsukamoto[1)]
[1)]Division of Clinical Immunology and Cancer Immunotherapy, Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University,
[2)]Department of Clinical Pharmacology and Therapeutics, Kyoto University Hospital,
[3)]Department of Immunology and Genomic Medicine, Center for Cancer Immunotherapy and Immunobiology, Graduate School of Medicine, Kyoto University,
[4)]Department of Respiratory Medicine, Graduate School of Medicine, Kyoto University,
[5)]Department of Rheumatology and Clinical Immunology, Graduate School of Medicine, Kyoto University,
[6)]Department of Urology, Graduate School of Medicine, Kyoto University,
[7)]Department of Cell Pathology, Graduate School of Medical Science, Faculty of Life Sciences, Kumamoto University

O-128 Detection of MAGE-A4 antigen expression using the novel monoclonal antibody E701U

新規モノクローナル抗体 E701U による MAGE-A4 抗原発現検出法の確立

◯Shinichi Kageyama[1)], Taizo Shiraishi[2)], Kohichi Takada[3)], Naomi Kiyota[4)], Shigehisa Kitano[5)], Tatsu Shimoyama[6)], Mikiya Ishihara[1,7)], Shinji Okano[8)], Shinichiro Kobayashi[8)], Akihiko Matsumine[9)], Makoto Endo[10)], Yasuhiro Nagata[8)], Hiroaki Ikeda[8)], Yoshihiro Miyahara[1)]
[1)]三重大学大学院医学系研究科, [2)]桑名市総合医療センター, [3)]札幌医科大学医学部, [4)]神戸大学医学部附属病院, [5)]がん研有明病院, [6)]都立駒込病院, [7)]大阪国際がんセンター, [8)]長崎大学大学院医歯薬学総合研究科, [9)]福井大学医学部, [10)]九州大学病院

O-129 Visualization of Cell Secretion and Dynamic Analysis of Responsive Cells to Accelerate Cancer Immunology Research

◯Mai Yamagishi[1)], Zhuohao Yang[2)], Koji Nagaoka[3)], Yuto Kurisu[4)], Nobutake Suzuki[2)], Satoshi Yotsumoto[5)], Takashi Kamatani[6)], Masato Tanaka[5)], Kazuhiro Kakimi[3)], Yoshitaka Shirasaki[2)]
[1)]Live Cell Diagnosis, Ltd., [2)]Research Center for Advanced Science and Technology, The University of Tokyo,
[3)]Department of Immunology, Kindai University Faculty of Medicine,
[4)]Graduate School of Pharmaceutical Sciences, The University of Tokyo,
[5)]School of Life Sciences, Tokyo University of Pharmacy and Life Sciences,
[6)]M&D Data Science Center, Institute of Integrated Research, Institute of Science Tokyo