

The 80th Annual Meeting of the Japanese Cancer Association

# Day 3

October 2 (Saturday)

Room 3	Oct. 2 (Sat.) 8:00-8:50	E/J
ML12	<b>How to get your paper accepted</b> アクセプトされる論文の書き方	
Chairperson: Yoshio Miki (TMDU/JFCR) 座長：三木 義男（東京医歯大・分子遺伝/がん研・遺伝子診断）	ML12 <b>How to get your paper accepted</b> Masanori Hatakeyama (Dept. Microbiol., Grad. Sch. Med., Univ. Tokyo) <b>アクセプトされる論文の書き方</b> 畠山 昌則（東京大・院医・微生物学）	ML12 <b>On the origin of cancer</b> がんの起源を探って
Chairperson: Yutaka Kondo (Div. Cancer Biol, Nagoya Univ. Grad. Sch. of Med.) 座長：近藤 豊（名古屋大・院医・腫瘍生物学）	Chairperson: Nobuyuki Kakiuchi <sup>1,2</sup> ( <sup>1</sup> Dept. Pathol. & Tumor Biol., Kyoto Univ., <sup>2</sup> Dept. Gastroenterol. & Hepatol., Kyoto Univ.) <b>がんの起源を探って</b> 垣内 伸之 <sup>1,2</sup> （京都大・医・腫瘍生物、 <sup>2</sup> 京都大・医・消化器内科）	Chairperson: Seiichi Mori (CPM Ctr., JFCR) 座長：森 誠一（がん研究会・CPM センター）
Room 4	Oct. 2 (Sat.) 8:00-8:50	E/J
ML13	<b>Drug discovery targets in the era of precision oncology</b> がん治療の標的分子に求められる3つの条件	
Chairperson: Atsushi Ohtsu (Natl. Cancer Ctr. Hosp. East) 座長：大津 敦（国立がん研セ・東病院）	ML13 <b>Drug discovery targets in the era of precision oncology</b> Akihiro Tomida (Cancer Chemother. Ctr., Jpn. Fdn. Cancer Res.) <b>がん治療の標的分子に求められる3つの条件</b> 富田 章弘（公財）がん研・化療セ	ML17 <b>Epigenetic regulation of intratumor heterogeneity</b> がん細胞多様性のエピゲノム制御機構
Chairperson: Seiichi Mori (CPM Ctr., JFCR) 座長：森 誠一（がん研究会・CPM センター）	Chairperson: Kunihiko Hinohara (Dept. Immunol., Grad. Sch. Med., Nagoya Univ.) <b>がん細胞多様性のエピゲノム制御機構</b> 日野原 邦彦（名古屋大・院医・分子細胞免疫学）	Chairperson: Tetsushi Sakuma (Grad. Sch. of Integr. Sci. for Life, Hiroshima Univ.) 座長：佐久間 哲史（広島大・院統合生命科学）
Room 5	Oct. 2 (Sat.) 8:00-8:50	E/J
ML14	<b>Drug discovery research targeting oxygen sensing mechanisms in the tumor microenvironment</b> がん微小環境の酸素センシング機構を標的とした創薬研究	
Chairperson: Nobuhiro Nishiyama (Tokyo Institute of Tech.) 座長：西山 伸宏（東京工大・科学技術創成・化学生命科学研）	ML14 <b>Drug discovery research targeting oxygen sensing mechanisms in the tumor microenvironment</b> Takeharu Sakamoto <sup>1,2</sup> ( <sup>1</sup> Distinguished Professor appointed by the University President, Dept. of Cancer Biology, Inst. of Biomedical Science, Kansai Med. Univ., <sup>2</sup> Dept. Syst. Biol., Inst. Med. Pharm. Health Sci., Kanazawa Univ.) <b>がん微小環境の酸素センシング機構を標的とした創薬研究</b> 坂本 肇治 <sup>1,2</sup> （関西医大附属生命医学研究所 がん生物学部門 学長特命教授、 <sup>2</sup> 金沢大・医学系・システム生物学分野）	ML18 <b>Development and application of CRISPR screening</b> CRISPRスクリーニングの開発と応用
Chairperson: Tetsushi Sakuma (Grad. Sch. of Integr. Sci. for Life, Hiroshima Univ.) 座長：佐久間 哲史（広島大・院統合生命科学）	Chairperson: Kosuke Yusa (Inst. Front. Life Med. Sci., Kyoto Univ.) <b>CRISPRスクリーニングの開発と応用</b> 遊佐 宏介（京都大・ウイルス・再生研）	Chairperson: Ryoji Yao (Dept. Cell Biol., Cancer Inst., JFCR) 座長：八尾 良司（がん研究会・がん研究所・細胞生物部）
Room 6	Oct. 2 (Sat.) 8:00-8:50	E/J
ML15	<b>Organ-specific tumor microenvironment</b> 臓器特異の腫瘍微小環境	
Chairperson: Hideaki Nakajima (Dept. Hematol., Yokohama City Univ., Sch. Med.) 座長：中島 秀明（横浜市大・医・血液免疫感染症内科）	ML15 <b>Organ-specific tumor microenvironment</b> Eishu Hirata (TCBB, Cancer Res. Inst. of Kanazawa Univ.) <b>臓器特異の腫瘍微小環境</b> 平田 英周（金沢大・がん研・腫瘍細胞生物学）	ML19 <b>Genome structural polymorphism analysis by applying denovo genome sequencing technology for non-model organisms</b> 非モデル生物のゲノム配列決定技術を応用したゲノム構造多型解析
Chairperson: Ryoji Yao (Dept. Cell Biol., Cancer Inst., JFCR) 座長：八尾 良司（がん研究会・がん研究所・細胞生物部）	Chairperson: Takehiko Itoh (Life Sci. & Tech. Tokyo Inst. of Tech.) <b>Genome structural polymorphism analysis by applying denovo genome sequencing technology for non-model organisms</b> 非モデル生物のゲノム配列決定技術を応用したゲノム構造多型解析 伊藤 武彦（東工大・生命理工学院）	Chairperson: Eiji Yamada (Inst. Integr. Sci. for Life, Hiroshima Univ.) 座長：山田 実（広島大・院統合生命科学）
Room 10	Oct. 2 (Sat.) 8:00-8:50	E/J
ML19	<b>Genome structural polymorphism analysis by applying denovo genome sequencing technology for non-model organisms</b> 非モデル生物のゲノム配列決定技術を応用したゲノム構造多型解析	
Chairperson: Takehiko Itoh (Life Sci. & Tech. Tokyo Inst. of Tech.) <b>Genome structural polymorphism analysis by applying denovo genome sequencing technology for non-model organisms</b> 伊藤 武彦（東工大・生命理工学院）	Chairperson: Eiji Yamada (Inst. Integr. Sci. for Life, Hiroshima Univ.) 座長：山田 実（広島大・院統合生命科学）	Chairperson: Ryoji Yao (Dept. Cell Biol., Cancer Inst., JFCR) 座長：八尾 良司（がん研究会・がん研究所・細胞生物部）

Room 11 Oct. 2 (Sat.) 8:00-8:50

E/J

ML20

**Cancer prevention and treatment by intestinal design  
腸内デザインによるがんの予防・治療**

Chairperson: Takuji Yamada (Dept. of Life Sci. &amp; Tech., Tokyo Inst. Tech.)

座長：山田 拓司（東工大・生命理工）

**ML20 Cancer prevention and treatment by intestinal design**Shinji Fukuda<sup>1,2,3,4</sup> (<sup>1</sup>Inst. Adv. Biosci. Keio Univ., <sup>2</sup>KISTEC-KAST, <sup>3</sup>Univ. Tsukuba Sch. Med., <sup>4</sup>Metagen)

腸内デザインによるがんの予防・治療

福田 真嗣<sup>1,2,3,4</sup>（慶應大・先端生命化学研、<sup>2</sup>神奈川産技総研、<sup>3</sup>筑波大・医、<sup>4</sup>メタジェン）

Room 12 Oct. 2 (Sat.) 8:00-8:50

E/J

ML21

**Application of exosomes for cancer diagnosis and treatment  
エクソソームの診断と治療への展開**

Chairperson: Hidetoshi Tahara (Cell. &amp; Mol. Biol., Grad. Sch. Biomed. &amp; Health Sci., Hiroshima Univ.)

座長：田原 栄俊（広島大・院医・細胞分子生物学）

**ML21 Application of exosomes for cancer diagnosis and treatment**Akiko Takahashi<sup>1,2</sup> (<sup>1</sup>Proj. Cell. Senescence, Cancer Inst., JFCR, <sup>2</sup>Cancer Cell Commun. Proj., NEXT-Ganken, JFCR)

エクソソームの診断と治療への展開

高橋 晓子<sup>1,2</sup>（<sup>1</sup>（公財）がん研・研・細胞老化、<sup>2</sup>（公財）がん研・NEXT・がん細胞）

Room 13 Oct. 2 (Sat.) 8:00-8:50

E/J

ML22

**Cancer-resistance in the longest-lived rodent, the naked mole-rat  
最長寿齧歯類ハダカデバネズミにおける発がん耐性**

Chairperson: Masataka Sugimoto (Res. Inst. Natl. Ctr. Ger. Gerontol./ Nagoya Univ. Grad. Sch. of Med.)

座長：杉本 昌隆（国立長寿医療研究セ・研／名古屋大・院医）

**ML22 Cancer-resistance in the longest-lived rodent, the naked mole-rat**

Kyoko Miura (Kumamoto Univ., Faculty of Life Sci.)

最長寿齧歯類ハダカデバネズミにおける発がん耐性

三浦 恒子（熊本大・院生命科学・老化・健康長寿学）

Room 17 Oct. 2 (Sat.) 8:00-8:50



IAL

**JCA International Award Lecture  
JCA インターナショナルアワード受賞講演**

Chairperson: Toshikazu Ushijima (Div. Epigenomics, Natl. Cancer Ctr. Res. Inst.)

座長：牛島 俊和（国立がん研究セ・研・エピゲノム）

**IAL Carcinogenic mechanisms of cholangiocarcinoma by fluke and urothelial cancer by aristolochic acid**Bin Tean Teh<sup>1,2,3,4</sup> (<sup>1</sup>National Cancer Centre Singapore, <sup>2</sup>Duke-NUS Medical School, <sup>3</sup>Institute of Molecular and Cell Biology, A\*STAR, Singapore, <sup>4</sup>Genome Institute of Singapore, A\*STAR)

INFORMATION

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Room 1 Oct. 2 (Sat.) 9:00-11:30

E

AACR2

**Heterogeneity/Clonal evolution**

Chairpersons: Seishi Ogawa (Kyoto Univ.)  
Charles Swanton (Crick Inst.)

座長：小川 誠司（京都大・院医・腫瘍生物学）  
Charles Swanton (Crick Inst.)

It had been considered that cancer development is due to the formation of a uniform, highly malignant cell population through the acquisition of driver mutations and repeated natural selection, which favor cell survival. However, recent advances in sequencing technology have revealed that a large number of clones with different mutations are generated during the course of cancer evolution, leading to the formation of intratumoral heterogeneity. The intratumoral heterogeneity is believed to be the major cause of therapeutic resistance. In this symposium, leading researchers from Japan and the United States will present and discuss the heterogeneity and clonal evolution, which are the pivotal mechanisms that control the development and progression of cancer.

**AACR2-1 Clonal expansion in normal tissues**

Seishi Ogawa (Dept. Path. & Tumor Biol., Kyoto Univ.)

正常組織におけるクローン拡大

小川 誠司（京都大・院医・腫瘍生物学）

**AACR2-2 Role of chromosomal instability in cancer evolution and immune evasion**

Charles Swanton (Crick Inst.)

**AACR2-3 3D structure and molecular heterogeneity in normal uterine endometrium**

Takayuki Enomoto<sup>1</sup>, Kosuke Yoshihara<sup>2</sup> (<sup>1</sup>Niigata Univ. Grad. Sch. of Med. and Dent. Sci., <sup>2</sup>Niigata Univ. Grad. Sch. of Med. and Dent. Sci.)

子宮内膜の3次元構造と分子生物学的多様性

榎本 隆之<sup>1</sup>、吉原 弘祐<sup>2</sup> (<sup>1</sup>新潟大・医・産科婦人科、<sup>2</sup>新潟大・院医歯学総合)

**AACR2-4 Breast tumor evolution**

Kornelia Polyak (Dana-Farber Cancer Institute, Harvard Medical School, Boston, USA)

**Symposia**

Room 2

Oct. 2 (Sat.) 9:00-11:30

E

**S17****Novel functions and clinical application of the most famous tumor suppressor gene p53**

最も有名ながん抑制遺伝子p53の新機能と臨床応用

Chairpersons: Rieko Ohki (Lab. of Fundamental Oncology, Natl. Cancer Ctr. Res. Inst.)  
Tomoaki Tanaka (Dept. Mol. Diagnosis, Chiba Univ. Grad. Sch. of Med.)

座長：大木 理恵子（国立がん研セ・研・基礎腫瘍学ユニット）

田中 知明（千葉大・院医学研究院分子病態解析学）

The tumor suppressor gene p53 is the most frequently mutated gene in human cancers and plays a central role in the regulation of tumorigenesis. p53 encodes a transcription factor involved in the regulation of apoptosis, cell cycle arrest, DNA repair, etc., via its ability to transactivate a network of target genes. Since its discovery in 1979, utmost efforts have been made by the researchers to uncover the functions of p53, but the whole picture of the p53 function has not yet been elucidated. In this special workshop, 8 speakers, including Dr. Guillermo Lozano, pioneer of the p53 research, will focus on the novel discoveries in the p53 research. The functions of both wild-type and mutant p53 in various cancers including cancers of breast, colon, liver, blood and neuroendocrine will be discussed with emphasis on the possible clinical applications of the research.

**S17-1 Wild type and mutant p53 functions**

Guillermo Lozano (The Univ. of Texas MD Anderson Cancer Ctr.)

**S17-2 Drugging the p53 pathway for cancer therapy**

Tomoo Iwakuma (Childrens Mercy Res. Inst., Translational Lab. Oncology Res. Program)

腫瘍抑制遺伝子 p53 経路を標的とするがん治療薬の開発

岩熊 智雄（チルドレンズマーシー病院がん臨床応用研究）

**S17-3 Mutant TP53 interacts with BCAR1 to contribute to cancer cell invasion**

Koji Itahana<sup>1</sup>, Alvin K. Guo<sup>1</sup>, Yoko Itahana<sup>1</sup>, Veerabrahma P. Seshachalam<sup>2</sup>, Hui Y. Chow<sup>1</sup>, Sujoy Ghosh<sup>2</sup> (<sup>1</sup>Cancer & Stem Cell Biol. Prog., Duke-NUS Med. Sch. Singapore, <sup>2</sup>Ctr. for Comp. Biol., Duke-NUS Med. Sch. Singapore)

変異型 p53 と BCAR1 の結合による癌浸潤への貢献

板鼻 康至<sup>1</sup>、Alvin K. Guo<sup>1</sup>、板鼻 陽子<sup>1</sup>、Veerabrahma P. Seshachalam<sup>2</sup>、Hui Y. Chow<sup>1</sup>、Sujoy Ghosh<sup>2</sup> (<sup>1</sup>Duke-NUS 医学大学院、癌と幹細胞科、<sup>2</sup>Duke-NUS 医学大学院、計算生物科)

**S17-4 Intestinal stem cell regeneration factors and colon cancer.**

Kazutaka Murata<sup>1</sup>, Unmesh Jadhav<sup>2</sup>, Shariq Madha<sup>3</sup>, Johanvan Es<sup>4</sup>, Justin Dean<sup>5,6</sup>, Alessia Cavazza<sup>7</sup>, Kai Wucherpfennig<sup>8</sup>, Franziska Michor<sup>5,6</sup>, Hans Clevers<sup>4</sup>, Ramesh Shivdasani<sup>3,9,10</sup>, Tomoaki Tanaka<sup>1</sup> (<sup>1</sup>Dept. Mol. Diagnosis Grad. Sch. of Med. Chiba Univ., <sup>2</sup>CIRM Cen. for Regene. Med. & Stem Cell Res. USC, <sup>3</sup>Dept. Med. Onc. DFCI DFCI, <sup>4</sup>KNAW, UMC, <sup>5</sup>Dept. Can. Data Sci. DFCI Dept. Biostat. Harvard Pub. Health, <sup>6</sup>Dept. Stem Cell & Regenerative Biol. Harvard Univ., <sup>7</sup>UCL Great Ormond Street Inst. of Child Health, <sup>8</sup>Dept. Cancer Immunol. Dana-Farber Cancer Inst., <sup>9</sup>Dept. Med. Brigham & Womens Hosp. Harvard Med. Sch., <sup>10</sup>Harvard Stem Cell Inst.)

腸管幹細胞再生因子と大腸がん

村田 和貴<sup>1</sup>、Unmesh Jadhav<sup>2</sup>、Shariq Madha<sup>3</sup>、Johanvan Es<sup>4</sup>、Justin Dean<sup>5,6</sup>、Alessia Cavazza<sup>7</sup>、Kai Wucherpfennig<sup>8</sup>、Franziska Michor<sup>5,6</sup>、Hans Clevers<sup>4</sup>、Ramesh Shivdasani<sup>3,9,10</sup>、Tomoaki Tanaka<sup>1</sup> (<sup>1</sup>Dept. Mol. Diagnosis Grad. Sch. of Med. Chiba Univ., <sup>2</sup>CIRM Cen. for Regene. Med. & Stem Cell Res. USC, <sup>3</sup>Dept. Med. Onc. DFCI DFCI, <sup>4</sup>KNAW, UMC, <sup>5</sup>Dept. Can. Data Sci. DFCI, <sup>6</sup>Dept. Stem Cell & Reg. Bio. Harvard U., <sup>7</sup>UCL、<sup>8</sup>Dept. Can. Imm. DFCI、<sup>9</sup>Dept. Med. BWH、<sup>10</sup>Harvard Stem Cell Inst.)

**S17-5 p53 activation inhibits the development of AML with the assistance of NK cells**

Susumu Goyama<sup>1</sup>, Emi Sugimoto<sup>2</sup>, Toshio Kitamura<sup>2</sup> (<sup>1</sup>Mol. Oncology, Grad. Sch. of Frontier Sci., Tokyo Univ., <sup>2</sup>Div. cell therapy, IMSUT)

p53活性化薬は、NK細胞と協調して急性骨髓性白血病の発症を抑制する。

合山 進<sup>1</sup>、杉本 純美<sup>2</sup>、北村 俊雄<sup>2</sup> (<sup>1</sup>東京大・新領域・先進分子腫瘍学分野、<sup>2</sup>東京大・医科研・細胞療法分野)

**S17-6 Contribution of the p53 pathway in cancers that carry wild-type p53**

Rieko Ohki (Lab. of Fundamental Oncology, Natl. Cancer Ctr. Res. Inst.)

p53を野生型でもつがんにおけるp53経路が果たす機能の解明  
大木 理恵子（国立がん研セ・研・基礎腫瘍学ユニット）

## Symposia on Specific Tumors

Room 3 Oct. 2 (Sat.) 9:00-11:30

SST5

## Advances in AYA generation cancer research

AYA 世代のがん研究における最新の知見

Chairpersons: Takuro Nakamura (Div. Carcinogenesis, Cancer Inst., JFCR)

Junko Takita (Dept. Pediatrics, Grad. Sch. of Med., Kyoto Univ.)

座長：中村 卓郎 ((公財)がん研・研・発がん)

滝田 順子 (京都大・院医・発達小児科)

Cancers of the adolescents and young adults (AYA) generation exhibit characteristic features distinct from adult cancers. Although the total disease incidence is the lowest among all age groups, yet the generation also shows predisposition to the development of certain characteristic types of cancers. Effective molecular targeted therapies for many cancers of AYA generation remain underdeveloped due to diversity of diseases and rather small populations of clinical and basic researchers. In this symposium, we will focus on cancers of hematological, mesenchymal, nervous and reproductive systems. Most of these tumors exhibit low mutation rates of genome, important roles of epigenetic aberrations, and unique developmental processes. The symposium is also highlighted by promising approaches to explore novel drugs. We hope that we will have constructive discussions on the current problems and our future tasks in individual diseases.

## SST5-1 A novel high-risk subtype in T-ALL, identified by an integrative transcriptome and methylation analysis

Kiyotaka Isobe, Junko Takita (Dept. Pediatrics, Kyoto Univ., Kyoto, Japan)

トランスクリプトームとメチル化アレイの統合解析により同定されたT細胞急性リンパ性白血病における新規高リスク群について  
磯部 清孝、滝田 順子 (京都大・小児科)

## SST5-2 Targeting MEF2D-fusion Oncogenic Transcriptional Circuitries in B-cell Precursor Acute Lymphoblastic Leukemia

Shinobu Tsuzuki<sup>1</sup>, Takahiko Yasuda<sup>2</sup>, Masahito Kawazu<sup>3</sup>, Toshihide Ueno<sup>3</sup>, Sivasundaram Karnan<sup>1</sup>, Akinobu Ota<sup>4</sup>, Masashi Sanada<sup>2</sup>, Hirokazu Nagai<sup>2</sup>, Akihiro Tomita<sup>4</sup>, Yoshiyuki Takahashi<sup>5</sup>, Yasushi Miyazaki<sup>6</sup>, Itaru Matsumura<sup>7</sup>, Hitoshi Kiyoi<sup>8</sup>, Yoshitaka Hosokawa<sup>1</sup>, Hiroyuki Mano<sup>9</sup>, Fumihiro Hayakawa<sup>9</sup> (<sup>1</sup>Dept. Biochem., Aichi Med. Univ., Sch. Med., <sup>2</sup>Clin. Res. Ctr., NHO, Nagoya Med. Ctr., <sup>3</sup>Div. Cell. Signal., Nat. Cancer Ctr. Res. Inst., <sup>4</sup>Dept. Hematol., Fujita Health Univ., Sch. Med., <sup>5</sup>Dept. Pediatr., Nagoya Univ. Grad. Sch. Med., <sup>6</sup>Dept. Hematol., Atomic Bomb Dis. Inst., Nagasaki Univ., <sup>7</sup>Dept. Hematol. & Rheumatol., Kindai Univ. Facul. Med., <sup>8</sup>Dept. Hematol. & Oncol., Nagoya Univ. Grad. Sch. Med., <sup>9</sup>Dept. Pathophysiol. Lab. Sci., Nagoya Univ. Grad. Sch. Med.)

Pre-B 細胞性急性リンパ球性白血病における転写制御ネットワーク  
都築 忍、安田 貴彦<sup>2</sup>、河津 正人<sup>3</sup>、上野 敏秀<sup>3</sup>、カルナン シバズン ダラン<sup>1</sup>、太田 明伸<sup>1</sup>、真田 昌<sup>2</sup>、永井 宏和<sup>2</sup>、富田 章裕<sup>4</sup>、高橋 義行<sup>5</sup>、宮崎 泰司<sup>6</sup>、松村 到<sup>7</sup>、清井 仁<sup>8</sup>、細川 好孝<sup>1</sup>、間野 博行<sup>3</sup>、早川 文彦<sup>9</sup> ((愛知医大・医・生化学、<sup>2</sup>名古屋医療セ・臨床研究セ、<sup>3</sup>国立がん研セ・研・細胞情報学、<sup>4</sup>藤田医大・医・血液内科、<sup>5</sup>名古屋大・医・小児科、<sup>6</sup>長崎大・原爆後障害医療研・原研内科、<sup>7</sup>近畿大・医・血液・膠原病内科、<sup>8</sup>名古屋大・医・血液腫瘍内科、<sup>9</sup>名古屋大・医・保健・細胞遺伝子情報科学)

## SST5-3 Epigenetic aberrations in alveolar soft part sarcoma and mesenchymal chondrosarcoma

Takuro Nakamura (Div. Carcinogenesis, Cancer Inst., JFCR)

胞巣状軟部肉腫と間葉性軟骨肉腫のエピゲノム病態

中村 卓郎 ((公財)がん研・研・発がん)

## SST5-4 A new therapeutic target of aggressive osteosarcoma.

Kentaro Watanabe<sup>1</sup>, Junko Takita<sup>1,2</sup> (<sup>1</sup>Dept. Ped., The Univ. of Tokyo, <sup>2</sup>Dept. Ped., Kyoto Univ.)

難治性骨肉腫の新規治療標的

渡邊 健太郎<sup>1</sup>、滝田 順子<sup>1,2</sup> ((東京大・医・小児科、<sup>2</sup>京都大・医・小児科)

## SST5-5 Pathophysiological analysis and the development of novel therapies for gliomas in AYAs

Akifake Mukasa (Dept. Neurosurg., Kumamoto Univ.)

AYA 世代のグリオーマの病態解析と新規治療法開発

武笠 晃丈 (熊本大・医・脳外)

## SST5-6 Identification of therapeutic targets for testicular germ cell tumors by analyses using patient-derived cancer models

Kuniko Horie<sup>1</sup>, Sachi Kitayama<sup>1</sup>, Kazuhiro Ikeda<sup>1</sup>, Satoru Kawakami<sup>2</sup>, Satoshi Inoue<sup>1,3</sup> (<sup>1</sup>Div. Systems Med. & Gene Therapy, Saitama Med. Univ., <sup>2</sup>Dept. Urology, Saitama Med. Ctr., Saitama Med. Univ., <sup>3</sup>Dept. Systems Aging Sci., Tokyo Metropol. Inst. of Gerontol.)

患者由来がん培養・移植系を活用した精巣がん分子病態の解析と新規治療標的の探索

堀江 公仁子<sup>1</sup>、北山 沙知<sup>1</sup>、池田 和博<sup>1</sup>、川上 理<sup>2</sup>、井上 聰<sup>1,3</sup> (<sup>1</sup>埼玉医大・医・ゲノム応用医学、<sup>2</sup>埼玉医大・総合医療セ・泌尿器科、<sup>3</sup>都健康長寿医療セ・システム加齢医学)

- S17-7 Activation of hepatocyte p53 paradoxically promotes liver carcinogenesis derived from hepatic progenitor cells.**  
Yuki Makino, Hayato Hikita, Tetsuo Takehara (Gastroenterology & Hepatology, Osaka Univ. Grad. Sch. of Med.)  
肝細胞におけるp53の恒常的活性化は肝前駆細胞由來の肝発癌を促進する  
牧野 祐紀、疋田 隼人、竹原 徹郎 (大阪大・院医・消化器内科学)  
**S17-8 Role of p53 in intestinal homeostasis and microbiome regulation**  
Amy H. Khor<sup>1</sup>, Chizu Tanikawa<sup>2</sup>, Koichi Matsuda<sup>1</sup> (<sup>1</sup>Grad. Sch. of Frontier Sci., Univ. of Tokyo, <sup>2</sup>Inst. of Medial Sci., Univ. of Tokyo)

## International Sessions

Room 4	Oct. 2 (Sat.) 9:00-11:30	E
IS9	Aiming for cancer care that leaves no-one behind: What and where are the sources of innovation for achieving UHC in Asia?	
	Chairpersons: Tetsuo Noda (Cancer Inst. of JFCR) Jeff Dunn (The CEO of Prostate Cancer Foundation of Australia and President-elect of the Union for International Cancer Control) Kazuo Tajima (Mie Univ.) 座長：野田 哲生 ((公財)がん研・研) Jeff Dunn (The CEO of Prostate Cancer Foundation of Australia and President-elect of the Union for International Cancer Control) 田島 和雄 (三重大・医・公衆衛生・産業医学)	
	The COVID-19 crisis has highlighted the many issues confronting cancer care around the world. Many are not new, nor are they a result of the pandemic, but rather COVID-19 has made the challenges being faced by existing cancer care and healthcare systems more apparent. With the support of UICC-Japan, the UICC Asian Regional Office (UICC-ARO) was among the first to engage in research into UHC for cancer. Today the concept of equity-medical care that leaves no-one behind (UHC), has never been more important.	
	The theme for the UICC Leaders' Summit in October is "Driving innovation to advance cancer control equitably," with particular emphasis on the lessons learned from the pandemic. Ahead of the summit, this session will leverage the expertise of UICC to pose a number of questions that need consideration in this time of global upheaval.	
	Firstly, what and where are the sources of innovation that will enable us to overcome the current crisis? Is it possible for Asia to lower medical costs, enhance quality and increase accessibility? Digital transformation is vastly expanding data flows, but how can we retain a human-centered approach to UHC? How can innovation help to address equity?	
IS9-1	<b>THE ROLE OF CIVIL SOCIETY ORGANISATIONS IN CANCER CONTROL &amp; THE PROMOTION OF UNIVERSAL HEALTH COVERAGE</b> Jeff Dunn (The CEO of Prostate Cancer Foundation of Australia and President-elect of the Union for International Cancer Control)	
IS9-2	<b>Social and Digital Innovation in health in the COVID-19 response - Achieving UHC</b> Saeda Makimoto (JICA Ogata Sadako Research Institute for Peace and Development) コロナ禍の社会・デジタルイノベーション—UHCに向けて 牧本 小枝 (国際協力機構緒方貞子平和開発研究所)	
IS9-3	<b>Cancer Control Today. Opportunities for Radiotherapy and Importance of UHC</b> Mary Gospodarowicz (Radiation Oncology, University of Toronto)	
IS9-4	<b>Universal Health Coverage (UHC) and Palliative Care</b> Kunihiro Ishitani (Higashi Sapporo Hospital) ユニバーサル・ヘルス・カバレッジ (UHC) と緩和ケア 石谷 邦彦 (医療法人東札幌病院)	
IS9-5	<b>Social policy and health disparity in terms of universal health coverage -lessons from tobacco control-</b> Takahiro Tabuchi (Osaka International Cancer Institute, Cancer Control Center) すべての人を健康にするための社会政策と健康格差—タバコ対策からの教訓— 田淵 貴大 (大阪国際がんセンター (UICC 加盟組織) がん対策センター疫学統計部 部長補佐)	
IS9-6	<b>The Role of UICC Japan in the New Drug Development and UHC in Asia</b> Masaru Iwasaki (University of Yamanashi) アジアにおける抗がん剤開発と UHC における UICC Japan の役割 岩崎 甫 (山梨大学)	
Room 5	Oct. 2 (Sat.) 9:00-11:30	E
IS10	<b>Theoretic strategy for immune checkpoint inhibitor-based combination therapy</b> チェックポイント阻害剤の併用治療開発に向けたバイオマーカーと戦略	
	Chairpersons: Kenji Chamoto (Kyoto Univ.) Mien-Chie Hung (China Med. Univ., Taichung, Taiwan) 座長：茶本 健司 (京都大・院医・免疫ゲノム医学) Mien-Chie Hung (China Med. Univ., Taichung, Taiwan)	
	Immune checkpoint inhibitor (ICI) drugs have been changed the way of cancer treatment. However, a substantial number of cancer patients are still unresponsive. Since anti-tumor immune reaction is regulated various factors and complicated, unresponsive mechanism has not been fully elucidated. Based on the scientific proof of the unresponsive mechanism, it is urgently required to develop combination therapy to improve the efficacy of ICI therapy.	
	In this international session 9, we have six abstracts from China, Japan, Taiwan and the US on the topics of immune checkpoint inhibitor for developing potential combination therapies including marker-guided (Hung, Taiwan) and immunity-activating agents such as telomerase-specific oncolytic adenoviruses (Hashimoto, Japan), and precision medicine (Togashi, Japan) to treat cancer patients. In addition, we will discuss new insights on evasion of immune surveillance of tumor cells (Huang, China) and in aging hosts (Chamoto, Japan) as well as diversity of T-cell responses to cancer cells (Newell, USA). These different approaches regarding ICI combination therapies will catch the current landscape of ICI-based cancer immunotherapy.	
IS10-1	<b>Decoding the diversity of T-cell responses in cancer through the analysis of antigen specificity</b> Evan W. Newell <sup>1</sup> ( <sup>1</sup> Vaccine & Infectious Disease Div., Fred Hutchinson Cancer Res. Ctr., <sup>2</sup> Dept. Lab. Med. & Path. Univ. of Washington)	
IS10-2	<b>Marker-guided immune checkpoint inhibitor-based combination therapy</b> Mien-Chie Hung (China Med. Univ., Taichung, Taiwan)	
IS10-3	<b>Precision Medicine of Cancer Immunotherapy</b> Yosuke Togashi (Dept. Tumor Microenvironment, Okayama Univ., Med.) がん免疫療法の個別化医療を目指して 富樫 康介 (岡山大・医・腫瘍微小環境学分野)	
IS10-4	<b>A combinational strategy for unresponsiveness to PD-1 blockade therapy in aged individuals</b> Kenji Chamoto, Yuka Nakajima, Tasuku Honjo (CCII, Grad. Sch. Med., Kyoto Univ.) 老化によるPD-1阻害抗体耐性メカニズムとそれに基づく併用治療法の開発 茶本 健司、仲島 由佳、本庶 佑 (京都大・医・がん免疫セ)	
IS10-5	<b>Mechanical softness: new way for tumorigenic cell immune escape</b> Bo Huang (Institute of Basic Med., China Academy Med. Sci., Beijing, China)	
IS10-6	<b>Immunity-activating telomerase-specific oncolytic adenoviruses produce synergistic effects with anti-PD1 antibody</b> Masashi Hashimoto <sup>1</sup> , Shinji Kuroda <sup>1</sup> , Nobuhiko Kanaya <sup>1</sup> , Tomoko Tsumura <sup>1</sup> , Yoshihiko Kakiuchi <sup>1</sup> , Satoru Kikuchi <sup>1</sup> , Hiroshi Tazawa <sup>1</sup> , Shunsuke Kagawa <sup>1</sup> , Yasuo Urata <sup>2</sup> , Toshiyoshi Fujiwara <sup>1</sup> ( <sup>1</sup> Okayama Univ. Dept. Gastroenterological Surg., <sup>2</sup> Oncolys BioPharma Inc.) テロメラーゼ特異的腫瘍融解アデノウイルス製剤の免疫賦活剤としての有用性と抗PD-1抗体との相乗効果 橋本 将志 <sup>1</sup> 、黒田 新士 <sup>1</sup> 、金谷 信彦 <sup>1</sup> 、津村 朋子 <sup>1</sup> 、垣内 延彦 <sup>1</sup> 、菊地 覚次 <sup>1</sup> 、田澤 大 <sup>1</sup> 、香川 俊輔 <sup>1</sup> 、浦田 泰生 <sup>2</sup> 、藤原 俊義 <sup>1</sup> ( <sup>1</sup> 岡山大・消化器外科、 <sup>2</sup> オンコリスバイオファーマ(株))	

## The JCA-Mauvernay Awards Session

Room 6 Oct. 2 (Sat.) 9:00-11:30

**MVA****The JCA-Mauvernay Awards Session**  
JCA-モヴェルネアワードセッション

E

Chairpersons: Fuyuki Ishikawa (Kyoto Univ. Grad. Sch. of Biostudies)  
Toshikazu Ushijima (Div. Epigenomics, Natl. Cancer Ctr. Res. Inst.)

座長：石川 冬木（京都大・院生命）  
牛島 俊和（国立がん研セ・研・エピゲノム）

**MVA-1 Genomic characterization of life-cycle in diffuse-type gastric cancer**  
Shumpei Ishikawa (Department of Preventive Medicine, Graduate School of Medicine, The University of Tokyo)

ゲノムによるびまん型胃癌のライフサイクルの解明  
石川 俊平（東京大学 医学部・大学院医学系研究科 衛生学教室）

**MVA-2 Development of targeted therapies against tumors with aberrant MAPK signaling.**

Hiromichi Ebi (Division of Molecular Therapeutics, Aichi Cancer Center Research Institute)

MAPK シグナルに異常を示す腫瘍に対する治療開発

衣斐 寛倫（愛知県がんセンター がん標的治療トランスレーショナルリサーチ分野）

**MVA-3 Surgical oncology to develop novel targeted and immunotherapies for hepato-biliary-pancreatic cancer**

Shinji Tanaka (Dept. Mol. Oncology, Tokyo Med. Dent. Univ.)

外科腫瘍学に基づいた肝胆脾癌に対する新規分子標的-免疫併用療法の開発

田中 真二（東京医歯大・医・分子腫瘍医学）

**MVA-4 Targeting driver mutations and critical factors in hematological and solid cancers**

Issay Kitabayashi<sup>1</sup>, Yukiko Aikawa<sup>1</sup>, Kazutsune Yamagata<sup>1</sup>, Takuo Katsumoto<sup>1</sup>, Yutaka Shima<sup>1</sup>, Akihiko Yokoyama<sup>1</sup>, Yukino Machida<sup>1</sup>, Haruka Shinohara<sup>1</sup>, Yoko Ogawara<sup>1</sup>, Shuhei Fujita<sup>1</sup>, Makoto Nakagawa<sup>1</sup>, Koichi Ichimura<sup>1</sup>, Daisuke Honma<sup>2</sup>, Hironori Matsunaga<sup>2</sup>, Kazushi Araki<sup>2</sup> (<sup>1</sup>Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Oncology Res. Lab., Daiichi Sankyo)

ドライバー変異と必須因子を標的とした分子標的治療法の開発を目指して

北林 一生<sup>1</sup>、相川 祐規子<sup>1</sup>、山形 和恒<sup>1</sup>、勝生 拓夫<sup>1</sup>、島 豊<sup>1</sup>、横山 明彦<sup>1</sup>、町田 雪乃<sup>1</sup>、篠原 悠<sup>1</sup>、小川原 陽子<sup>1</sup>、藤田 修平<sup>1</sup>、中川 亮<sup>1</sup>、市村 幸一<sup>1</sup>、本間 大輔<sup>1</sup>、松永 大典<sup>2</sup>、荒木 一司<sup>2</sup> (<sup>1</sup>国立がん研セ・研、<sup>2</sup>第一三共・品川研究開発セ)

**MVA-5 Debiopharm develops full health solutions for patients, from diagnosis to treatment and treatment monitoring.**

Thierry Mauvernay, Bertrand Ducrey (Debiopharm International SA)

**MVA-6 Cholecystokinin 2 receptor as a new target for theranostic modalities that combine diagnosis and treatment of cancers**

Frederic Levy (Debiopharm International SA)

## English Oral Sessions

Room 7 Oct. 2 (Sat.) 9:00-10:15

**E16****Molecular-targeting therapy**  
分子標的治療

Chairperson: Hiroki Nagase (Chiba Cancer Ctr. Res. Inst.)  
座長：永瀬 浩喜（千葉県がんセンター研究所）

**E16-1 Functional involvement of conophylline molecular target ARL6ip1 in tumorigenicity of human colorectal cancer cells**

Yinzh Lin<sup>1,2</sup>, Karna Sivasundaram<sup>3</sup>, Shiori Kojima<sup>1,4</sup>, Hideaki Ito<sup>5</sup>, Kazuo Umezawa<sup>1</sup> (<sup>1</sup>Dept. Mol. Target Med., Aichi Med. Univ., Sch. Med., <sup>2</sup>Dept. MicroBiol. & Immunol., Aichi Med. Univ., Sch. Med., <sup>3</sup>Dept. Biochem., Aichi Med. Univ., Sch. Med., <sup>4</sup>Med. Res. Inst., Fukuyu Corporation, <sup>5</sup>Dept. Path., Aichi Med. Univ., Sch. Med.)

ヒト大腸がん細胞の腫瘍形成能におけるコノフィリンの分子標的 ARL6ip1 の関与

林 音知<sup>1,2</sup>、シバスンダラン カルナン<sup>3</sup>、小嶋 しおり<sup>1,4</sup>、伊藤 秀明<sup>5</sup>、梅澤 一夫<sup>1</sup> (<sup>1</sup>愛知医大・医・分子標的医薬品寄附、<sup>2</sup>愛知医大・医・感染・免疫学、<sup>3</sup>愛知医大・医・生化学、<sup>4</sup>福友医学研、<sup>5</sup>愛知医大・医・病理学)

**E16-2 KRAS inhibitor-resistance in MET-amplified KRAS<sup>G12C</sup> non-small cell lung cancer**

Shinichiro Suzuki<sup>1</sup>, Kimio Yonesaka<sup>1</sup>, Junko Tanizaki<sup>1</sup>, Hisato Kawakami<sup>1</sup>, Hidetoshi Hayashi<sup>1</sup>, Kazuko Sakai<sup>2</sup>, Kazuto Nishio<sup>2</sup>, Kazuhiko Nakagawa<sup>1</sup> (<sup>1</sup>Dept. Med. Oncology, Kindai Univ. Faculty of Med., <sup>2</sup>Dept. Genome Biol. Kindai Univ. Faculty of Med.)

**MET-amplified** による **KRAS<sup>G12C</sup>** 阻害薬の獲得耐性とそのメカニズム

鈴木 慎一郎<sup>1</sup>、米阪 仁雄<sup>1</sup>、谷崎 潤子<sup>1</sup>、川上 尚人<sup>1</sup>、林 秀敏<sup>1</sup>、坂井 和子<sup>2</sup>、西尾 和人<sup>2</sup>、中川 和彦<sup>1</sup> (<sup>1</sup>近畿大・内科学腫瘍内科部門、<sup>2</sup>近畿大・医・ゲノム生物学教室)

**E16-3 Discovery of the FLT3 inhibitor gilteritinib as a novel therapeutic strategy to overcome ALK-TKI resistance**

Hayato Mizuta<sup>1,2</sup>, Ai Takemoto<sup>1</sup>, Satoshi Takagi<sup>1</sup>, Siro Simizu<sup>2</sup>, Makoto Nishio<sup>3</sup>, Naoya Fujita<sup>4</sup>, Ryohei Katayama<sup>1,5</sup> (<sup>1</sup>Div. Experiment. Chemother., Cancer Chemother. Ctr., JFCR, <sup>2</sup>Dept. Appl. Chem., Fac. Sci. Tech., Keio Univ., <sup>3</sup>Dept. Thorac. Med. Oncol., Cancer Inst. Hosp., JFCR, <sup>4</sup>Cancer Chemother. Ctr., JFCR, <sup>5</sup>Dept. CBMS, Grad. Sch. Front. Sci., Univ. of Tokyo)

**ALK-TKI 耐性克服を可能にする FLT3 阻害薬ギルテリチニブの発見**

水田 隼斗<sup>1,2</sup>、竹本 愛<sup>1</sup>、高木 聰<sup>1</sup>、清水 史郎<sup>2</sup>、西尾 誠人<sup>3</sup>、藤田 直也<sup>4</sup>、片山 量平<sup>1,5</sup> (<sup>1</sup> (公財) がん研・化療セ・基礎研究部、<sup>2</sup>慶應大・理工・応化、<sup>3</sup> (公財) がん研・有明病院・呼吸器内科、<sup>4</sup> (公財) がん研・化療セ、<sup>5</sup>東京大・新領域・メディカル情報生命)

**E16-4 Identification of the Achilles heels of BRAF V600E mutated colorectal cancer by focused inhibitor library screening**

Yuki Shimizu<sup>1,2</sup>, Yuki Takahashi<sup>3,4</sup>, Kohhei Maruyama<sup>1,2</sup>, Mai Suzuki<sup>1,2</sup>, Tomoko Ohhara<sup>1</sup>, Satoshi Nagayama<sup>5</sup>, Naoya Fujita<sup>6</sup>, Ryohei Katayama<sup>1,2</sup> (<sup>1</sup>Div. Exp. Chemother., Cancer Chemother. Ctr., JFCR, <sup>2</sup>Dept. CBMS, Grad. Sch. Front. Sci., The Univ. of Tokyo, <sup>3</sup>Tech. Res. Inst., Toppan Printing Co., Ltd., <sup>4</sup>Div. Clin. Chemother., Cancer Chemother. Ctr., JFCR, <sup>5</sup>Dept. Gastroenterological Surg., Cancer Inst. Hosp., JFCR, <sup>6</sup>Cancer Chemother. Ctr., JFCR)

阻害剤スクリーニングによる BRAF V600E 変異陽性大腸がんのアキレス腱の発見

清水 裕貴<sup>1,2</sup>、高橋 祐生<sup>3,4</sup>、丸山 航平<sup>1,2</sup>、鈴木 麻衣<sup>1,2</sup>、大原 智子<sup>1</sup>、長山 聰<sup>5</sup>、藤田 直也<sup>6</sup>、片山 量平<sup>1,2</sup> (<sup>1</sup> (公財) がん研・化療セ・基礎研究部、<sup>2</sup>東京大・新領域・メディカル情報生命、<sup>3</sup>凸版印刷 (株)・総合研、<sup>4</sup> (公財) がん研・化療セ・臨床部、<sup>5</sup> (公財) がん研・有明病院・消化器外科、<sup>6</sup> (公財) がん研・化療セ)

**E16-5 Therapeutic response monitoring of CDK4/6 inhibitors in metastatic breast cancer using liquid biopsy**

Yoonming Chin<sup>1,2</sup>, Tomoko Shibayama<sup>3</sup>, Hiuting Chan<sup>1</sup>, Masumi Otaki<sup>4</sup>, Makiko Ono<sup>4</sup>, Yoshinori Ito<sup>3</sup>, Shunji Takahashi<sup>4</sup>, Shinji Ohno<sup>3</sup>, Takayuki Ueno<sup>3</sup>, Yusuke Nakamura<sup>4</sup>, Siewkee Low<sup>1</sup> (<sup>1</sup>Cancer Precision Med. Ctr., Japanese Foundation for Cancer Res., Tokyo, <sup>2</sup>Cancer Precision Med. Inc., Kawasaki, Japan, <sup>3</sup>Breast Oncology Ctr., Japanese Foundation for Cancer Res., Tokyo, <sup>4</sup>Dept. Med. Oncology, Japanese Foundation for Cancer Res., Tokyo, <sup>5</sup>Dept. Comprehensive Med. Oncology, Japanese Foundation for Cancer Res.)

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## English Oral Sessions

E

Room 7 Oct. 2 (Sat.) 10:15-11:30

E11-2

**Characteristics of cancer cells (2)**

がん細胞の特性 (2)

Chairperson: Keisuke Sekine (Natl. Cancer Ctr. Res. Inst.)

座長: 関根 圭輔 (国立がん研セ・研)

E16-6

**Placental growth factor promotes tumor desmoplasia and treatment resistance in intrahepatic cholangiocarcinoma**

Shuichi Aoki<sup>1,2</sup>, Minoru Kobayashi<sup>1</sup>, Taiki Kajiwara<sup>1</sup>, Kyohei Ariake<sup>1</sup>, Akihiro Yamamura<sup>1</sup>, Kei Kawaguchi<sup>1</sup>, Hideaki Karasawa<sup>1</sup>, Hideo Ohtsuka<sup>1</sup>, Masamichi Mizuma<sup>1</sup>, Shinobu Ohnuma<sup>1</sup>, Michiaki Unno<sup>1</sup> (<sup>1</sup>Dept. Surg., Tohoku Univ., <sup>2</sup>Massachusetts General Hosp., Harvard Med. Sch.)

**抗PIGF療法による癌微小環境の再構築が肝内胆管癌における治療耐性を克服する**

青木 修一<sup>1,2</sup>、小林 実<sup>1</sup>、梶原 大輝<sup>1</sup>、有明 恒平<sup>1</sup>、山村 明寛<sup>1</sup>、川口 桂<sup>1</sup>、唐澤 秀明<sup>1</sup>、大塚 英郎<sup>1</sup>、水間 正道<sup>1</sup>、大沼 忍<sup>1</sup>、海野 優明<sup>1</sup> (<sup>1</sup>東北大・院・消化器外科、<sup>2</sup>マサチューセッツ総合病院、ハーバード大)

**E11-2-1 Single-cell analysis to elucidate intratumoral heterogeneity using 2D-organoid**

Shiki Fujino<sup>1,2,3</sup>, Takashi Takeda<sup>1</sup>, Katsuki Danno<sup>1</sup>, Kei Yamamoto<sup>1</sup>, Kozo Noguchi<sup>1</sup>, Yasuhiro Toyoda<sup>1</sup>, Toshiteru Tokunaga<sup>1</sup>, Takaumi Hirao<sup>1</sup>, Keishi Sugimoto<sup>1</sup>, Yoshio Oka<sup>1</sup>, Masafumi Horie<sup>4</sup>, Shinichi Yachida<sup>4</sup>, Masayuki Ohue<sup>5</sup>, Yuichiro Doki<sup>3</sup>, Hidetoshi Eguchi<sup>3</sup>, Norikatsu Miyoshi<sup>2,3</sup> (<sup>1</sup>Minoh City Hosp. Dept. Surg., <sup>2</sup>OICi iNOR, <sup>3</sup>Osaka Univ. Dept. Gastroenterological Surg., <sup>4</sup>Osaka Univ. Dept. Cancer Genome Informatics, <sup>5</sup>OICi Dept. Gastroenterological Surg.)

## 2次元培養オルガノイドを利用したシングルセル解析による癌多様性の解明

藤野 志季<sup>1,2,3</sup>、武田 和<sup>1</sup>、團野 克樹<sup>1</sup>、山本 慧<sup>1</sup>、野口 幸彌<sup>1</sup>、豊田 泰弘<sup>1</sup>、徳永 俊照<sup>1</sup>、平尾 隆文<sup>1</sup>、杉本 圭司<sup>1</sup>、岡 義雄<sup>1</sup>、堀江 真史<sup>4</sup>、谷内田 真一<sup>4</sup>、大植 雅之<sup>5</sup>、土岐 祐一郎<sup>3</sup>、江口 英利<sup>3</sup>、三吉 詹克<sup>2,3</sup> (<sup>1</sup>箕面市立病院外科、<sup>2</sup>大阪国際がんセ・がん医療創生部、<sup>3</sup>大阪大・消化器外科、<sup>4</sup>大阪大・がんゲノム情報学、<sup>5</sup>大阪国際がんセ・消化器外科)

**E11-2-2 Analysis of mechanisms which regulate the tumor malignancy in LGR5 expressing gastric cancer cells**

Kazuhiko Murakami<sup>1</sup>, Yumi Terakado<sup>3</sup>, Nick Barker<sup>1,2</sup> (<sup>1</sup>Kanazawa Univ. CRI Div. Epithelial Stem Cell Biol., <sup>2</sup>A\*STAR IMCB Epithelial Stem Cell Group, <sup>3</sup>Kanazawa Univ. CRI Div. Genetics)

## LGR5陽性の胃がん細胞において幹細胞性を導く機構の解析

村上 和弘<sup>1</sup>、寺門 侑美<sup>3</sup>、Nick Barker<sup>1,2</sup> (<sup>1</sup>金沢大・がん研 上皮幹細胞、<sup>2</sup>シンガポール科学技術研究庁、<sup>3</sup>金沢大・がん研 腫瘍遺伝学)

**E11-2-3 Transcription factor FOXA1 is a negative regulator for xCT-dependent tumor formation in oral cancer**

Shogo Okazaki<sup>1,2</sup>, Yuki Nakano<sup>1</sup>, Momoko Yoshikawa<sup>2,3</sup>, Tomoya Soma<sup>3</sup>, Seiji Asoda<sup>3</sup>, Ryo Goitsuka<sup>1</sup>, Hideyuki Saya<sup>2</sup>, Osamu Nagano<sup>2</sup> (<sup>1</sup>Div. Cell Fate Regulation, RIBS, Tokyo Univ. Sci., <sup>2</sup>Div. Gene Regulation, IAMR, Keio Univ. Sch. of Med., <sup>3</sup>Dept. Dent. & Oral Surg., Keio Univ. Sch. of Med.)

## 口腔扁平上皮癌においてFOXA1発現はxCT依存の腫瘍成長を抑制する

岡崎 章悟<sup>1,2</sup>、中野 友暉<sup>1</sup>、吉川 桃子<sup>2,3</sup>、相馬 智也<sup>3</sup>、筋生田 整治<sup>3</sup>、後飯塚 優、佐谷 秀行<sup>2</sup>、永野 修<sup>2</sup> (<sup>1</sup>東京理大・生命研・生体運動制御、<sup>2</sup>慶應大・医・先端研・遺伝子制御、<sup>3</sup>慶應大・医・歯科口腔外科)

**E11-2-4 Single-cell RNAseq identifies subpopulations of drug resistant cancer stem-like cells in patient-derived breast cancer**

Li Mengjiao<sup>1</sup>, Tatsunori Nishimura<sup>1</sup>, Daisuke Shiokawa<sup>2</sup>, Shimamura Teppei<sup>3</sup>, Asako Sasahara<sup>4</sup>, Masao Yano<sup>3</sup>, Satoko Ishikawa<sup>5</sup>, Tetsuo Ota<sup>6</sup>, Keiichiro Tada<sup>7</sup>, Koji Okamoto<sup>2</sup>, Arinobu Tojo<sup>8</sup>, Noriko Gotoh<sup>1</sup> (<sup>1</sup>Div. Cancer Cell Biol., CRI, Kanazawa Univ., <sup>2</sup>Div. Cancer Differentiation, NCCRI, <sup>3</sup>Div. Systems Biol., Nagoya Univ., Sch. Med., <sup>4</sup>Dept. Breast & Endocrine Surg., The Univ. of Tokyo, <sup>5</sup>Dept. Surg., Minami-machiida Hosp., <sup>6</sup>Dept. Gastroenterological Surg., Kanazawa Univ., <sup>7</sup>Dept. Breast & Endocrine Surg., Nihon Univ., <sup>8</sup>Div. Mol. Therapy, IMS, The Univ. of Tokyo)

**E11-2-5 MEK and GSK-3 inhibitors enhance the microenvironment of tumor initiation**

Hassan Ghmkin<sup>1</sup>, Said M. Afify<sup>1</sup>, Maram H. Zahara<sup>1</sup>, David S. Salomon<sup>3</sup>, Akimasa Seno<sup>1,4</sup>, Masaharu Seno<sup>1,4</sup> (<sup>1</sup>GS-ISEHS, Okayama Univ., Japan, <sup>2</sup>Faculty of Pharm., Damascus Univ., Damascus, Syria, <sup>3</sup>Ctr. for Cancer Res., NCI, USA, <sup>4</sup>The Lab. of Natural Food & Med., Co Ltd, Japan)

**E11-2-6 Establishment and characterization of cell line-derived cancer stem-like cell of cholangiocarcinoma**

Panawan Orasa<sup>1,2,3,4,5</sup>, Atit Silsirivanit<sup>2</sup>, Siyaporn Putthisen<sup>2</sup>, Worasak Kaewkong<sup>3</sup>, Kanha Muksuk<sup>3</sup>, Marutpong Detarya<sup>2</sup>, Taro Yokota<sup>1</sup>, Sukanya Luang<sup>2</sup>, Seiji Okada<sup>5</sup>, Sopit Wongkham<sup>2</sup>, Norie Araki<sup>1</sup> (<sup>1</sup>Dept. Tumor genetic & Mol. Biol. Japan, <sup>2</sup>Dept. Biochem. Fac. of Med. Khon Kaen Univ. Thailand, <sup>3</sup>Dept. Biochem. Fac. of Med. Sci. Naresuan Univ. Thailand, <sup>4</sup>Dept. Forensic Med. Fac. of Med. Khon Kaen Univ. Thailand, <sup>5</sup>Div. Hematopoiesis Ctr. of AIDS Res. Kumamoto Uni. Japan)

## English Oral Sessions

Room 8 Oct. 2 (Sat.) 9:00-10:15

E12-3 Cancer immunity (3)  
がん免疫 (3)

Chairperson: Yoshihiro Hayakawa (Inst. of Natural Med., Univ. of Toyama)  
座長: 早川 芳弘 (富山大・和漢研)

## E12-3-1 Development of T cell-dependent bispecific antibodies and an immunoregulation approach against refractory solid tumor

Masahiro Yasunaga<sup>1</sup>, Ryo Tsumura<sup>1</sup>, Takahiro Anzai<sup>1</sup>, Ryutaro Asano<sup>2</sup>  
(<sup>1</sup>Div. Developmental Therap., EOR&CT Ctr., Natl. Cancer Ctr.,  
<sup>2</sup>Tokyo Univ. of Agriculture & Tech.)

難治性固体腫瘍に対するT細胞依存性2重特異性抗体と免疫制御法の開発

安永 正浩<sup>1</sup>、津村 遼<sup>1</sup>、安西 高廣<sup>1</sup>、浅野 竜太郎<sup>2</sup> (<sup>1</sup>国立がん研セ・先端医療開発セ・新薬開発、<sup>2</sup>東京農工大・院工・生命機能科学)

## E12-3-2 Serine threonine kinase 24 (STK24) mediates immune evasion signals in tumors by regulating immuno-suppressive molecules

Aya Misawa<sup>1,2</sup>, Shigeki Ohta<sup>1,2</sup>, Naoshi Kawamura<sup>3</sup>, Hidetoshi Sumimoto<sup>2</sup>, Rumi Sakaguchi<sup>2</sup>, Ryotaro Imagawa<sup>2</sup>, Yuki Katoh<sup>2</sup>, Takahiro Tsurikawa<sup>2</sup>, Kenta Nakamura<sup>3</sup>, Ryuhei Okuyama<sup>3</sup>, Yutaka Kawakami<sup>1,2</sup> (<sup>1</sup>IUHW Med. Immunol., <sup>2</sup>Keio Univ. Advanced Med. Res. Cell Signaling, <sup>3</sup>Shinshu Univ. Med. Dermatology)

STK24による免疫抑制因子制御を介した腫瘍免疫回避

三沢 彩<sup>1,2</sup>、大多 茂樹<sup>1,2</sup>、川村 直<sup>2</sup>、住本 秀敏<sup>2</sup>、酒口 のるみ<sup>2</sup>、今川 遼太郎<sup>2</sup>、加藤 侑希<sup>2</sup>、辻川 敏裕<sup>2</sup>、中村 謙太<sup>3</sup>、奥山 隆平<sup>3</sup>、河上 裕<sup>1,2</sup> (<sup>1</sup>国際医療福祉大・医・免疫学、<sup>2</sup>慶應大・先端生命化学研・細胞情報、<sup>3</sup>信州大・医 皮膚科)

## E12-3-3 The role of fibrocyte in combination treatment of immune checkpoint inhibitor with antiangiogenic agents

Atsushi Mitsuhashi<sup>1</sup>, Hirokazu Ogino<sup>1</sup>, Atsuro Saito<sup>1</sup>, Kenji Otsuka<sup>1</sup>, Masamichi Sugimoto<sup>2</sup>, Hiroshi Nohikura<sup>1</sup>, Yasuhiko Nishioka<sup>1</sup> (<sup>1</sup>Dept. Respir Med. & Rheumatol, Tokushima Univ., <sup>2</sup>Product Res. Dept., Chugai Pharm. Co., Ltd)

免疫チェックポイント阻害薬および血管新生阻害薬併用療法におけるfibrocyteの役割

三橋 淳志<sup>1</sup>、荻野 広和<sup>1</sup>、西條 敦郎<sup>1</sup>、大塚 慶司<sup>1</sup>、杉本 正道<sup>2</sup>、軒原 浩<sup>1</sup>、西岡 安彦<sup>1</sup> (<sup>1</sup>徳島大・院・呼吸器膠原病内科学分野、<sup>2</sup>中外製薬(株) プロダクトリサーチ部)

E12-3-4 Antitumor effects of agents targeting SIRP $\alpha$ , an immune checkpoint, and their combination with other agents

Yoji Murata, Yasuyuki Saito, Takenori Kotani, Takashi Matozaki (Div. Mol. & Cell. Signal., Kobe Univ. Grad. Sch. Med.)

免疫チェックポイントSIRP $\alpha$ を標的とする薬剤と他の薬剤との併用による抗腫瘍効果

村田 陽二、齊藤 泰之、小谷 武徳、的崎 尚 (神戸大・院医・シグナル統合学)

## E12-3-5 Peptide-reactive T cell response as a novel biomarker in head and neck cancer patients treated with anti-PD-1 antibody

Takumi Kumai<sup>1,2</sup>, Ryusuke Hayashi<sup>2</sup>, Michihisa Kono<sup>2</sup>, Hideki Yamaki<sup>2</sup>, Yui Nozaki<sup>2</sup>, Kenzo Ohara<sup>2</sup>, Kan Kishibe<sup>2</sup>, Miki Takahara<sup>2</sup>, Akihiro Katada<sup>2</sup>, Tatsuya Hayashi<sup>1</sup>, Yasuaki Harabuchi<sup>1</sup> (<sup>1</sup>Dept. Innovative Head Neck Cancer Res. Treatment, Asahikawa Med. Univ., <sup>2</sup>Dept. Otolaryngology, Head & Neck Surg, Asahikawa Med. Univ.)

腫瘍抗原ペプチドを用いた免疫チェックポイント阻害薬におけるバイオマーカー探索

熊井 琢美<sup>1,2</sup>、林 隆介<sup>2</sup>、河野 通久<sup>2</sup>、山木 英聖<sup>2</sup>、野崎 結<sup>2</sup>、大原 賢三<sup>2</sup>、岸部 幹<sup>2</sup>、高原 幹<sup>2</sup>、片田 彰博<sup>2</sup>、林 達哉<sup>1</sup>、原渕 保明<sup>1</sup> (<sup>1</sup>旭川医大・頭頸部癌先端の診断・治療学、<sup>2</sup>旭川医大・耳鼻咽喉科・頭頸部外科)

## E12-3-6 Combination efficacy of STA551, a novel CD137 agonist activated by extracellular ATP, with T-cell redirecting antibody

Yoshinori Narita<sup>1,3</sup>, Mika Sakurai<sup>2,3</sup> (<sup>1</sup>Res. Div., Chugai Pharm. Co., Ltd., <sup>2</sup>Translational Res. Div., Chugai Pharm. Co., Ltd., <sup>3</sup>Chugai Pharmabody Res., Pte. Ltd.)

細胞外ATP依存的に作用する新規CD137アゴニスト抗体STA551とT細胞リダイレクティング抗体併用による抗腫瘍効果  
成田 義規<sup>1,3</sup>、櫻井 実香<sup>2,3</sup> (<sup>1</sup>中外製薬(株)研究本部、<sup>2</sup>中外製薬(株) TR本部、<sup>3</sup>中外ファーマボディー・リサーチ)

## English Oral Sessions

Room 8 Oct. 2 (Sat.) 10:15-11:30

E12-4 Cancer immunity (4)  
がん免疫 (4)

Chairperson: Shin Kaneko (Ctr. for iPSC Cell Res. and Application, Kyoto Univ.)  
座長: 金子 新 (京都大・iPS細胞研)

## E12-4-1 A2aR inhibition boosts the antitumor activity of CTLA4 blockade in preclinical models of Pten-deficient prostate cancer

Marco A. Develasco<sup>1</sup>, Yurie Kura<sup>1</sup>, Eri Banno<sup>2</sup>, Kazuko Sakai<sup>1</sup>, Nobutaka Shimizu<sup>2</sup>, Kazutoshi Fujita<sup>2</sup>, Masahiro Nozawa<sup>2</sup>, Kazuhiro Yoshimura<sup>2</sup>, Kazuto Nishio<sup>2</sup>, Hirotsugu Uemura<sup>1</sup> (<sup>1</sup>Dept. Genome Biol. Kindai Univ. Faculty of Med., <sup>2</sup>Dept. Urol. Kindai Univ. Faculty of Med.)

A2aR阻害はPten欠損前立腺癌マウスモデルにおいてCTLA4阻害薬の抗腫瘍活性を増強する

デベラスコ マルコ<sup>1</sup>、倉 由吏恵<sup>1</sup>、坂野 恵里<sup>2</sup>、坂井 和子<sup>1</sup>、清水 信貴<sup>2</sup>、藤田 和利<sup>2</sup>、野澤 昌弘<sup>2</sup>、吉村 一宏<sup>2</sup>、西尾 和人<sup>2</sup>、植村 天受<sup>1</sup> (<sup>1</sup>近畿大・医・ゲノム生物学教室、<sup>2</sup>近畿大・医・泌尿器科学教室)

## E12-4-2 The effect of DPP-4 inhibitor on tumor immune microenvironment of colorectal cancer.

Akira Saito<sup>1</sup>, Hideyuki Ohzawa<sup>1</sup>, Yuki Kaneko<sup>1</sup>, Kohei Tamura<sup>2</sup>, Yurie Futoh<sup>1</sup>, Kazuya Takahashi<sup>1</sup>, Yuki Kimura<sup>1</sup>, Mineyuki Tojo<sup>1</sup>, Hideyo Miyato<sup>1</sup>, Joji Kitayama<sup>1</sup> (<sup>1</sup>Dept. Surg., Jichi Med. Univ., <sup>2</sup>Dept. Obstetrics & Gynecol., Jichi Med. Univ.)

大腸癌免疫微小環境におけるDPP-4阻害薬の影響

齋藤 晶<sup>1</sup>、大澤 英之<sup>1</sup>、金子 勇貴<sup>1</sup>、田村 昇平<sup>2</sup>、風當 ゆりえ<sup>1</sup>、高橋 和也<sup>1</sup>、木村 有希<sup>1</sup>、東條 峰之<sup>1</sup>、宮戸 秀世<sup>1</sup>、北山 丈二<sup>1</sup> (<sup>1</sup>自治医大・附属病院・消化器一般移植外科、<sup>2</sup>自治医大・附属病院・産科婦人科学講座)

## E12-4-3 The examination of chemokine receptor for targeting poor prognosis leukemia with CD25-targeted CAR T cell therapy

Ari Itoh-Nakadai<sup>1,2</sup>, Yoriko Saito<sup>1</sup>, Fumihiko Ishikawa<sup>1</sup> (<sup>1</sup>Human Disease Models., IMS, Riken, Kanagawa, Japan, <sup>2</sup>Hygiene & public Health, NMS)

予後不良急性骨髓性白血病に対するCD25標的CAR-T細胞治療におけるケモカインリガンドの検討

伊藤 亜里<sup>1,2</sup>、齋藤 賴子<sup>1</sup>、石川 文彦<sup>1</sup> (<sup>1</sup>理研・IMS、<sup>2</sup>日本医大・医)

## E12-4-4 PD-L1 expression is regulated by RNA N6-methyladenosine demethylase FTO in colon cancer cells

Kenji Tsuchihashi<sup>1</sup>, Nobuhiro Tsuruta<sup>1</sup>, Hirofumi Ohmura<sup>1</sup>, Kyoko Yamaguchi<sup>1</sup>, Mamoru Ito<sup>1</sup>, Kenro Tanoue<sup>1</sup>, Taichi Isobe<sup>2</sup>, Hiroshi Ariyama<sup>1</sup>, Hitoshi Kusaba<sup>1</sup>, Koichi Akashi<sup>1</sup>, Eishi Baba<sup>2</sup> (<sup>1</sup>Dept. Med. & Biosystemic Sci., Kyushu Univ., <sup>2</sup>Dept. Oncology & Social Med., Kyushu Univ.)

大腸がん細胞においてPD-L1の発現はRNA修飾酵素FTOによって制御される

土橋 賢司<sup>1</sup>、鶴田 展大<sup>1</sup>、大村 洋大<sup>1</sup>、山口 享子<sup>1</sup>、伊東 守<sup>1</sup>、田ノ 上絢郎<sup>1</sup>、磯部 大地<sup>2</sup>、有山 寛<sup>1</sup>、草場 仁志<sup>1</sup>、赤司 浩一<sup>1</sup>、馬場 英司<sup>2</sup> (<sup>1</sup>九州学大・院医・病態修復内科学、<sup>2</sup>九州学大・院医・連携社会医学分野)

## E12-4-5 Role of mitochondrial N-formyl peptides as damage-associated molecular patterns on anti-tumor immunity

Kayoko Waki, Kanako Yokomizo, Akira Yamada (Res. Ctr. for Innovative Cancer Therapy, Kurume Univ.)

腫瘍細胞由来ダメージ関連分子パターンミトコンドリアN-ホルミルペプチドの抗腫瘍免疫における役割

和氣 加容子、横溝 香奈子、山田 亮 (久留米大・先端癌 がんワクチン分子)

## E12-4-6 Dandelion extract inhibited TNBC cells in TAMs microenvironment by suppressing IL-10/STAT3/PD-L1 signaling pathways

Han Shuyan, Xin X. Deng, Hui F. Hao, Yan N. Jiao, Dong Xue (Peking Univ. Cancer Hosp. & Inst.)

## English Oral Sessions

Room 9 Oct. 2 (Sat.) 9:00-10:15

E

E14-7

### Cancer basic, diagnosis and treatment (7): Hematopoietic malignancy 臓器がんの基礎・診断・治療 (7):造血器腫瘍

Chairperson: Hirotaka Matsui (Dept. Mol. Lab. Med., Kumamoto Univ.)

座長: 松井 啓隆 (熊本大・医・臨床病態解析学)

#### E14-7-1 Clonal evolution and prognostic impact of mutations in blast crisis of chronic myeloid leukemia

Yotaro Ochi<sup>1,2</sup>, Kenichi Yoshida<sup>1</sup>, Yasuhito Nannya<sup>1</sup>, Hikaru Sasaki<sup>3</sup>, Kinuko Mitani<sup>1</sup>, Noriko Hosoya<sup>4,5</sup>, Takayuki Ishikawa<sup>6</sup>, Kazuma Ohyashiki<sup>7</sup>, Naoto Takahashi<sup>8</sup>, Yusuke Shiozawa<sup>1</sup>, Hideki Makishima<sup>1</sup>, Yuichi Shiraishi<sup>9</sup>, Masashi Sanada<sup>10</sup>, Akifumi Takaori<sup>2</sup>, Satoru Miyano<sup>9</sup>, Seishi Ogawa<sup>1,11,12</sup> (<sup>1</sup>Dept. Path. & Tumor Biol., Kyoto Univ., Kyoto, Japan, <sup>2</sup>Dept. Hematology & Oncology, Kyoto Univ., Kyoto, Japan, <sup>3</sup>Dept. Hematology & Oncology, Dokkyo Med. Univ., Tochigi, Japan, <sup>4</sup>Lab. of Mol. Radiology, Univ. of Tokyo, Tokyo, Japan, <sup>5</sup>Dept. Med. Genomics, Univ. of Tokyo, Tokyo, Japan, <sup>6</sup>Dept. Hematol, Kobe City Med. Ctr. General Hosp., Kobe, Japan, <sup>7</sup>Dept. Hematology, Tokyo Med. Univ., Tokyo, Japan, <sup>8</sup>Hematology, Nephrology, & Rheumatology, Akita Univ., Akita, Japan, <sup>9</sup>Human Genome Ctr., Univ. of Tokyo, Tokyo, Japan, <sup>10</sup>Advanced Diagnosis, Natl. Hosp. Organization Nagoya Med. Ctr., Nagoya, Japan, <sup>11</sup>WPI-ASHBi, Kyoto Univ., Kyoto, Japan, <sup>12</sup>Dept. Med., Karolinska Inst., Stockholm, Sweden)

慢性骨髓性白血病急性転化のクローニング進化および遺伝子異常と予後  
越智 陽太郎<sup>1,2</sup>、吉田 健一<sup>1</sup>、南谷 泰仁<sup>1</sup>、佐々木 光<sup>3</sup>、三谷 絹子<sup>3</sup>、細谷 紀子<sup>4,5</sup>、石川 隆之<sup>6</sup>、大屋敷 一馬<sup>7</sup>、高橋 直人<sup>8</sup>、塩澤 裕介<sup>1</sup>、牧島 秀樹<sup>1</sup>、白石 友一<sup>9</sup>、真田 昌<sup>10</sup>、高折 晃史<sup>2</sup>、宮野 悟<sup>9</sup>、小川 誠司<sup>1,11,12</sup> (<sup>1</sup>京都大・腫瘍生物学講座、<sup>2</sup>京都大・血液腫瘍内科、<sup>3</sup>獨協医大・血液腫瘍内科、<sup>4</sup>東京大・放射線分子医学部門、<sup>5</sup>東京大・ゲノム医学講座、<sup>6</sup>神戸中央市民病院・血液内科、<sup>7</sup>東京医大・病院・血液内科、<sup>8</sup>秋田大・血液腎臓膠原病内科学、<sup>9</sup>東京大・医科研・DNA情報解析分野、<sup>10</sup>名古屋医療セ・高度診断研究部、<sup>11</sup>ヒト生物学高等研究拠点(ASHBi)、<sup>12</sup>カロリスカ研・分子血液学)

#### E14-7-2 Clonal heterogeneity and evolution of MPN revealed by single-cell RNA/ DNA sequencing

Qi Xingxing<sup>1</sup>, Masahiro M. Nakagawa<sup>1,2</sup>, Ryosaku Inagaki<sup>1,2,3</sup>, Sosuke Sumiyoshi<sup>1</sup>, Tomoe Nakagawa<sup>1</sup>, Yasuhito Nanya<sup>1</sup>, Lanying Zhao<sup>1,5</sup>, Hideki Makishima<sup>1</sup>, Hisashi Tsurumi<sup>4</sup>, Seishi Ogawa<sup>1,2,5,6</sup> (<sup>1</sup>Dept. Path. & Tumor Biol., Kyoto Univ., <sup>2</sup>DSK Project, Med. Innovation Ctr., Kyoto Univ., <sup>3</sup>DSP Cancer Inst., Sumitomo Dainippon Pharma Co., Ltd., <sup>4</sup>Dept. Hematology, Gifu Univ., <sup>5</sup>WPI-ASHBi, Kyoto Univ., <sup>6</sup>Dept. Med., HERM, Karolinska Inst.)

#### E14-7-3 Single-cell RNA sequencing reveals immune profile and tumor cell heterogeneity of angioimmunoblastic T-cell lymphoma

Sakurako Suma<sup>1</sup>, Manabu Fujisawa<sup>2</sup>, Yoshiaki Abe<sup>1</sup>, Yasuhito Suehara<sup>2,3</sup>, Manabu Kusakabe<sup>2,3</sup>, Takeshi Sugio<sup>4</sup>, Koichi Akashi<sup>4</sup>, Kosei Matsue<sup>5</sup>, Naoya Nakamura<sup>6</sup>, Ayako Suzuki<sup>7</sup>, Yutaka Suzuki<sup>7</sup>, Shigeru Chiba<sup>2,3</sup>, Mamiko Sakatayanagimoto<sup>2,3</sup> (<sup>1</sup>Hematol., Comprehensive Human Sci., Univ. of Tsukuba, Tsukuba, Japan, <sup>2</sup>Dept. Hematol., Faculty of Med., Univ. of Tsukuba, Japan, <sup>3</sup>Dept. Hematol., Univ. of Tsukuba Hosp., Tsukuba, Japan, <sup>4</sup>Dept. Med. & Biosystemic Sci., Kyushu Univ., Fukuoka, Japan, <sup>5</sup>Div. Hematol. /Oncol., Kameda Med. Ctr., Kamogawa, Japan, <sup>6</sup>Dept. Path., Tokai Univ. Sch. of Med., Isehara, Japan, <sup>7</sup>Dept. Computational Biol. & Med. Sci., Tokyo Univ., Japan)

シングルセル解析による血管免疫芽球性T細胞リンパ腫の免疫プロファイルおよび腫瘍細胞不均一性の解明

須摩 桜子<sup>1</sup>、藤澤 学<sup>2</sup>、安部 佳亮<sup>1</sup>、末原 泰人<sup>2,3</sup>、日下部 学<sup>2,3</sup>、杉尾 健志<sup>4</sup>、赤司 浩一<sup>4</sup>、末永 孝生<sup>5</sup>、中村 直哉<sup>6</sup>、鈴木 純子<sup>7</sup>、鈴木 穂<sup>7</sup>、千葉 滋<sup>2,3</sup>、坂田 (柳元) 麻実子<sup>2,3</sup> (<sup>1</sup>筑波大・院・人間総合科学研究科、<sup>2</sup>筑波大・医学医療系 血液内科、<sup>3</sup>筑波大・附属病院・血液内科、<sup>4</sup>九州大・医・病態修復内科、<sup>5</sup>龜田総合病院・血液・腫瘍内科、<sup>6</sup>東海大・基盤診療学系 病理診断学、<sup>7</sup>東京大・メディカル情報生命専攻)

#### E14-7-4 ASXL1 and ASXL2 Complementarily Maintain PR-DUB Activity to Promote Survival of Myeloid Leukemogenesis.

Reina Takeda<sup>1</sup>, Shuhei Asada<sup>1,2</sup>, Susumu Goyama<sup>3</sup>, Toshio Kitamura<sup>1</sup> (<sup>1</sup>Div. Cell. Therapy, IMSUT, Tokyo, <sup>2</sup>The Inst. of Lab. Animals, TWU, Tokyo, <sup>3</sup>Div. Mol. Oncology, CBMS, The Univ. of Tokyo, Tokyo)

骨髓性白血病におけるASXL ファミリーの相補的PR-DUB機能制御

竹田 玲奈<sup>1</sup>、浅田 修平<sup>1,2</sup>、合山 進<sup>3</sup>、北村 俊雄<sup>1</sup> (<sup>1</sup>東京大・医科研・細胞療法分野、<sup>2</sup>東京女子医大・実験動物研、<sup>3</sup>東京大・院・CBMS 先進分子腫瘍学分野)

#### E14-7-5 Glutathione-GPX4 Nexus Protects Acute Myeloid Leukemia (AML) Cells From Mitochondrial Protease ClpP-induced Cell Killing

Akiyama Hiroki, Jo Ishizawa (Dept. Leukemia, MD Anderson Cancer Ctr.)

#### E14-7-6 The molecular pathogenesis of DDX41-mutated myeloid neoplasms

Ayana Kon<sup>1</sup>, Masahiro Nakagawa<sup>1</sup>, Keisuke Kataoka<sup>1,2</sup>, Ryosaku Inagaki<sup>1</sup>, Hideki Makishima<sup>1</sup>, Yotaro Ochi<sup>1</sup>, Manabu Nakayama<sup>3</sup>, Haruhiko Koseki<sup>4</sup>, Yasuhito Nannya<sup>1</sup>, Seishi Ogawa<sup>1</sup> (<sup>1</sup>Dept. Path. & Tumor Biol., Kyoto Univ., Kyoto, Japan, <sup>2</sup>Div. Mol. Oncology, Natl. Cancer Ctr. Japan Res. Inst., Tokyo, Japan, <sup>3</sup>Dept. Tech. Development, Kazusa DNA Res. Inst., Chiba, Japan, <sup>4</sup>Lab. Developmental Genetics, RIKEN Ctr. Integrative Med. Sci., Yokohama, Japan)

骨髓系腫瘍におけるDDX41胚細胞変異・体細胞変異の分子病態の解明

昆 彩奈<sup>1</sup>、中川 正宏<sup>1</sup>、片岡 圭亮<sup>1,2</sup>、稻垣 良作<sup>1</sup>、牧島 秀樹<sup>1</sup>、越智 陽太郎<sup>1</sup>、中山 学<sup>3</sup>、古関 明彦<sup>4</sup>、南谷 泰仁<sup>1</sup>、小川 誠司<sup>1</sup> (<sup>1</sup>京都大・腫瘍生物学講座、<sup>2</sup>国立がん研セ・研・分子腫瘍学、<sup>3</sup>かづさDNA研究所 遺伝子応用研究室、<sup>4</sup>理研・免疫器官形成研究グループ)

## Japanese Oral Sessions

Room 10 Oct. 2 (Sat.) 9:00-10:15 J

## J5-1 Signal transduction and gene expression (1)

Chairperson: Hidetoshi Hayashi (Dept. Cell Signaling, Grad. Sch. Pharm. Sci., Nagoya City Univ.)

座長: 林 秀敏 (名古屋市大・院薬・細胞情報)

J5-1-1 **PLEKHA5 regulates the survival and peritoneal metastasis of scirrhous gastric carcinoma cells addicted to amplified Met**  
 Hideki Yamaguchi<sup>1</sup>, Makoto Miyazaki<sup>1</sup>, Yoshiko Nagano<sup>1</sup>, Kiyoko Fukami<sup>2</sup>, Kazuyoshi Yanagihara<sup>3</sup>, Kazuki Sasaki<sup>4</sup>, Ryuichi Sakai<sup>5</sup> (<sup>1</sup>Dept. Cancer Cell Res., Sasaki Inst., Sasaki Foundation, <sup>2</sup>Lab. Genome & Biosignals, Tokyo Univ. Pharm. Life Sci., <sup>3</sup>Div. Biomarker Discovery, EPOC, Natl. Cancer Ctr., <sup>4</sup>Dept. Peptidomics, Sasaki Inst., Sasaki Foundation, <sup>5</sup>Div. Biochem., Kitasato Univ. Sch. Med.)

PLEKHA5はMet遺伝子増幅を持つスキルス胃癌細胞の生存及び腹膜播種を制御する

山口 英樹<sup>1</sup>、宮崎 允<sup>1</sup>、永野 佳子<sup>1</sup>、深見 希代子<sup>2</sup>、柳原 五吉<sup>3</sup>、佐々木 一樹<sup>4</sup>、堺 隆一<sup>5</sup> (<sup>1</sup>佐々木研・附属研・腫瘍細胞・<sup>2</sup>東薬大・生命科学・ゲノム病態医科学、<sup>3</sup>国立がん研セ・先端医療開発セ、<sup>4</sup>佐々木研・附属研・ペプチドミクス、<sup>5</sup>北里大・医・生化学)

## J5-1-2 Suppression of obesity and hepatic steatosis by modulating ciliogenesis

Daishi Yamakawa<sup>1</sup>, Kousuke Kasahara<sup>1</sup>, Masatoshi Watanabe<sup>2</sup>, Masaki Inagaki<sup>1</sup> (<sup>1</sup>Dept. Physiol., Grad. Sch. of Med., Mie Univ., <sup>2</sup>Dept. Oncologic Path., Grad. Sch. of Med., Mie Univ.)

一次線毛形成制御による肥満・脂肪肝の抑制

山川 大史<sup>1</sup>、笠原 広介<sup>1</sup>、渡邊 昌俊<sup>2</sup>、稻垣 昌樹<sup>1</sup> (<sup>1</sup>三重大・院医・分子生理学、<sup>2</sup>三重大・院医・腫瘍病理学)

## J5-1-3 Non-canonical phosphorylation of EphA2 via the stress-induced p38-MK2 pathway

Akihiro Tanaka, Yue Zhou, Satoru Yokoyama, Hiroaki Sakurai (Dept. Cancer Cell Biol., Univ. of Toyama)

細胞内ストレス誘導性p38-MK2経路を介したEphA2の非定型的リン酸化

田中 章裕、周 越、横山 悟、櫻井 宏明 (富山大・院薬・がん細胞生物学)

## J5-1-4 Notch signaling contributes to drug resistance acquisition through metabolic alteration in advanced ovarian cancer

Mai Sugiyama<sup>1,2</sup>, Masato Yoshihara<sup>2</sup>, Yoshihiro Koya<sup>1</sup>, Kazuhisa Kitami<sup>2</sup>, Kaname Uno<sup>2</sup>, Shohei Iyoshi<sup>2</sup>, Kazumasa Mogi<sup>2</sup>, Akira Yokoi<sup>2</sup>, Akihiro Nawa<sup>1</sup>, Hiroaki Kajiyama<sup>2</sup> (<sup>1</sup>Bell Res. Ctr. Dept. Obstet. Gynecol., Nagoya Univ., Sch. Med., <sup>2</sup>Dept. Obstet. Gynecol., Nagoya Univ., Sch. Med.)

卵巣癌腹膜播種においてNotchシグナルは代謝変容を通して薬剤抵抗性獲得に寄与する

杉山 麻衣<sup>1,2</sup>、吉原 雅人<sup>2</sup>、小屋 美博<sup>1</sup>、北見 和久<sup>2</sup>、宇野 枢<sup>2</sup>、伊吉 祥平<sup>2</sup>、茂木 一将<sup>2</sup>、横井 曜<sup>2</sup>、那波 明宏<sup>1</sup>、梶山 広明<sup>2</sup> (<sup>1</sup>名古屋大・医・ペルリサーチセ・産婦人科、<sup>2</sup>名古屋大・医・産婦人科)

## J5-1-5 A novel mechanism of phosphatase activation for EGFR in HER2-positive breast cancer cells

Kanako Nishiyama<sup>1,2,3</sup>, Masashi Maekawa<sup>3,4</sup>, Jun Nakayama<sup>5</sup>, Akari Murakami<sup>1,2</sup>, Yoshiaki Kamei<sup>1,2</sup>, Yasutsugu Takada<sup>2</sup>, Shigeki Higashiyama<sup>3,4,6</sup> (<sup>1</sup>Dept. Breast Ctr., Ehime Univ. Hosp., <sup>2</sup>Dept. Hepato-Biliary-Pancreatic & Breast Surg., Ehime Univ., <sup>3</sup>Dept. Biochem. & Mol. Genetics, Ehime Univ., <sup>4</sup>Div. Cell Growth & Tumor Regulation, PROS, Ehime Univ., <sup>5</sup>Div. Cell. Signaling, Natl. Cancer Ctr. Res. Inst., <sup>6</sup>Dept. Mol. Cell. Biol. Res. Ctr., Osaka Int. Cancer Inst.)

HER2陽性乳癌細胞におけるEGFRフォスファターゼ活性化の新規メカニズム

西山 加那子<sup>1,2,3</sup>、前川 大志<sup>3,4</sup>、中山 淳<sup>5</sup>、村上 朱里<sup>1,2</sup>、亀井 義明<sup>1,2</sup>、高田 泰次<sup>2</sup>、東山 繁樹<sup>3,4,5</sup> (<sup>1</sup>愛媛大・医附属病院・乳腺セ、<sup>2</sup>愛媛大・医・肝胆脾・乳腺外科学、<sup>3</sup>愛媛大・医・生化学・分子遺伝学、<sup>4</sup>愛媛大・プロテオサイエンスセ、<sup>5</sup>国立がん研セ・研究室 細胞情報学、<sup>6</sup>大阪国際がんセ・分子細胞生物学部)

## J5-1-6 p53 dysfunction hampers the differentiation of mouse fallopian tube organoids

Shimpei Nagai<sup>1,2</sup>, Kenta Masuda<sup>1,2</sup>, Tomohiro Tamura<sup>1</sup>, Yuji Otsuki<sup>1</sup>, Kentaro Suina<sup>1</sup>, Hiroyuki Nobusue<sup>1</sup>, Tomoko Akahane<sup>2</sup>, Tatsuyuki Chiyoda<sup>2</sup>, Yusuke Kobayashi<sup>2</sup>, Kouji Banno<sup>2</sup>, Daisuke Aoki<sup>2</sup>, Hideyuki Saya<sup>1</sup>, Osamu Nagano<sup>1</sup> (<sup>1</sup>Div. Gene Reg. IAMR, Keio Univ. Sch. of Med., <sup>2</sup>Dept. Obst. Gynecol., Keio Univ. Sch. Med.)

p53の機能障害はマウス卵管オルガノイドの分化を阻害する

永井 晋平<sup>1,2</sup>、増田 健太<sup>1,2</sup>、田村 友宏<sup>1</sup>、大槻 雄士<sup>1</sup>、椎名 健太郎<sup>1</sup>、信末 博行<sup>1</sup>、赤羽 智子<sup>2</sup>、千代田 達幸<sup>2</sup>、小林 佑介<sup>2</sup>、阪埜 浩司<sup>2</sup>、青木 大輔<sup>2</sup>、佐谷 秀行<sup>1</sup>、永野 修<sup>1</sup> (<sup>1</sup>慶應大・医・先端研・遺伝子制御、<sup>2</sup>慶應大・医・産婦人科学教室)

## English Oral Sessions

Room 9 Oct. 2 (Sat.) 10:15-11:30 E

E14-8 Cancer basic, diagnosis and treatment (8): Renal cell cancer, prostatic cancer  
臓器がんの基礎・診断・治療 (8):腎がん・前立腺がん

Chairperson: Norio Nonomura (Dept. Urology Osaka Univ. Grad. Sch. of Med.)  
座長: 野々村 祝夫 (大阪大・医・泌尿器科)

## E14-8-1 Molecular mechanism of DNA methylation-mediated apoptosis resistance in renal cancer cells

Kosuke Miyakuni, Jun Nishida, Daizo Koinuma, Shogo Ehata, Kohei Miyazono (Dept. Mol. Path., Grad. Sch. Med., Univ. Tokyo)

腎細胞がんはDNAメチル化を介してアポトーシス耐性を獲得する  
宮國 昇介、西田 純、鯉沼 代造、江幡 正悟、宮園 浩平 (東京大・院医・分子病理)

## E14-8-2 Regulation of glutaminolysis by glutamine transporter knockdown to establish a new therapy for TKI-resistant RCC.

Kento Morozumi<sup>1</sup>, Yoshihide Kawasaki<sup>1</sup>, Tomonori Sato<sup>2</sup>, Shinnya Takasaki<sup>3</sup>, Syuichi Shimada<sup>4</sup>, Masamitsu Mackawa<sup>5</sup>, Akihiro Ito<sup>1</sup> (<sup>1</sup>Tohoku Univ. Uro., <sup>2</sup>Osaki Hosp. Uro., <sup>3</sup>Tohoku Hosp. Pharma.)

グルタミノリシスの制御がチロンシンキナーゼ阻害剤抵抗性 RCCに対する新規治療となり得る。

諸角 謙人<sup>1</sup>、川崎 芳英<sup>1</sup>、佐藤 友紀<sup>2</sup>、高崎 新也<sup>3</sup>、嶋田 修一<sup>1</sup>、前川 正充<sup>3</sup>、伊藤 明宏<sup>1</sup> (<sup>1</sup>東北大・医・泌尿器科、<sup>2</sup>大崎市民病院・泌尿器科、<sup>3</sup>東北大・病院・薬剤部)

## E14-8-3 Identification of OCT1 target genes involved in progression of castration-resistant AR-null prostate cancer

Daisuke Obinata<sup>1</sup>, Kenichi Takayama<sup>2</sup>, Daigo Funakoshi<sup>1</sup>, Mitchell Lawrence<sup>3</sup>, Renea Taylor<sup>3</sup>, Shahneen Sandhu<sup>4</sup>, Gail Risbridger<sup>3</sup>, Satoshi Inoue<sup>2</sup> (<sup>1</sup>Dept. Urol., Nihon Univ. Sch. of Med., <sup>2</sup>Dept. Systems Aging Sci. Med., Tokyo Metropol. Inst. Gerontol., <sup>3</sup>Dept. Anatomy & Developmental Biol., Monash Univ., <sup>4</sup>Sir Peter MacCallum, Dept. Oncology, Univ. of Melbourne)

去勢抵抗性AR陰性前立腺癌の進行に関わるOCT1標的遺伝子の同定

大日方 大亮<sup>1</sup>、高山 賢一<sup>2</sup>、船越 大吾<sup>1</sup>、Mitchell Lawrence<sup>3</sup>、Renea Taylor<sup>3</sup>、Shahneen Sandhu<sup>4</sup>、Gail Risbridger<sup>3</sup>、井上 聰<sup>2</sup> (<sup>1</sup>日本大・医・泌尿器科、<sup>2</sup>都健康長寿医療セ・研・システム加齢医学、<sup>3</sup>モナッシュ大、<sup>4</sup>メリボルン大)

## E14-8-4 Associations between fecal microbes and PD-L1 immunotherapy/JAK1/2 inhibition in mouse prostate cancer

Eri Banno<sup>1</sup>, Marco A. Develasco<sup>2</sup>, Yurie Kura<sup>2</sup>, Kazuko Sakai<sup>2</sup>, Mamoru Hashimoto<sup>1</sup>, Kazutoshi Fujita<sup>1</sup>, Masahiro Nozawa<sup>1</sup>, Kazuhiro Yoshimura<sup>1</sup>, Kazuto Nishio<sup>2</sup>, Hirotugu Uemura<sup>1</sup> (<sup>1</sup>Dept. Urol. Kindai Univ. Faculty of Med., <sup>2</sup>Dept. Genome Biol. Kindai Univ. Faculty of Med.)

前立腺癌マウスにおける抗PD-L1免疫療法およびJAK1/2阻害と糞便中の細菌について

坂野 恵里<sup>1</sup>、デベラスコ マルコ<sup>2</sup>、倉 由吏恵<sup>2</sup>、坂井 和子<sup>2</sup>、橋本 売<sup>1</sup>、藤田 和利<sup>1</sup>、野澤 昌弘<sup>1</sup>、吉村 一宏<sup>1</sup>、西尾 和人<sup>2</sup>、植村 天受<sup>1</sup> (<sup>1</sup>近畿大・医・泌尿器科学教室、<sup>2</sup>近畿大・医・ゲノム生物学教室)

## E14-8-5 Aspalathus linearis suppresses AKT signaling, c-Myc, AR and survival of enzalutamide-resistant prostate cancer cells

Chuu Chhipin<sup>1</sup>, Shihhan Huang<sup>1</sup>, Christo Muller<sup>2</sup>, Bijuan Wang<sup>1</sup>, Kaihsiu Chang<sup>1</sup> (<sup>1</sup>ICSM, Natl. Health Res. Institutes, Taiwan, <sup>2</sup>South African Med. Res. Council, South Africa)

## E14-8-6 Meta-analytic synthesis of radical prostatectomy vs. watchful waiting on clinical outcomes in prostate cancer patients

Azharuddin Md<sup>1</sup>, Manju Sharma<sup>2</sup> (<sup>1</sup>Dept. Pharm. Med., Div. Pharmacology, Jamia Hamdard, <sup>2</sup>Dept. Pharmacology, Jamia Hamdard)

## Japanese Oral Sessions

Room 10 Oct. 2 (Sat.) 10:15-11:30 J

### J5-2 Signal transduction and gene expression (2) シグナル伝達と遺伝子発現 (2)

Chairperson: Naoto Tsuchiya (Natl. Cancer Ctr. Res. Inst.)  
座長：土屋 直人（国立がん研セ）

#### J5-2-1 SAPK-regulated microRNA-X suppresses apoptosis in colorectal cancer

Noriko Tokai<sup>1</sup>, Takanori Nakamura, Mutsuhiro Takekawa (Dev. Cell Signal. Mol. Med., IMS, The Univ. of Tokyo)

SAPKにより制御されている miRNA-X は大腸癌のアポトーシスを抑制する

渡海 紀子、中村 貴紀、武川 瞳寛（東京大・医科研・分子シグナル制御）

#### J5-2-2 Identification and functional analysis of a novel head and neck squamous cell carcinoma-associated long non-coding RNA

Takeshi Niinuma<sup>1</sup>, Hiroshi Kitajima<sup>1</sup>, Yui Hatanaka<sup>2</sup>, Shohei Sekiguchi<sup>2</sup>, Akira Yorozu<sup>3</sup>, Toshiyuki Kubo<sup>4</sup>, Hajime Sasaki<sup>4</sup>, Taku Harada<sup>4</sup>, Masahiro Kai<sup>1</sup>, Hiroshi Nakase<sup>4</sup>, Hiromu Suzuki<sup>1</sup> (<sup>1</sup>Dept. Mol. Biol., Sapporo Med. Univ., Sch. Med., <sup>2</sup>Dept. Oral. Surg., Sapporo Med. Univ., Sch. Med., <sup>3</sup>Dept. Otolaryngol., Sapporo Med. Univ. Sch. Med., <sup>4</sup>Dept. Gastroenterol Hepatol., Sapporo Med. Univ. Sch. Med.)

新規頭頸部癌関連 long non-coding RNA の同定と機能解析

新沼 猛、北嶋 洋志<sup>1</sup>、畠中 柚衣<sup>2</sup>、閑口 翔平<sup>2</sup>、萬 顕<sup>3</sup>、久保 俊之<sup>4</sup>、佐々木 基<sup>4</sup>、原田 拓<sup>1</sup>、甲斐 正広<sup>1</sup>、仲瀬 裕志<sup>4</sup>、鈴木 拓<sup>1</sup>（<sup>1</sup>札幌医大・医・分子生物、<sup>2</sup>札幌医大・医・口腔外科、<sup>3</sup>札幌医大・医・耳鼻咽喉科、<sup>4</sup>札幌医大・医・消化器内科）

#### J5-2-3 The significance of Warburg effect found in hepatocellular carcinoma followed nonalcoholic steatohepatitis

Yosuke Inomata<sup>1</sup>, Kohei Taniguchi<sup>1,2</sup>, Nobuhiko Sugito<sup>3</sup>, Yoshiaki Takano<sup>1</sup>, Jun Arima<sup>4</sup>, Yukihiko Akaio<sup>5</sup>, Kazuhisa Uchiyama<sup>1</sup> (Osaka Med. & Farm. Univ., Dept. Gastro Surg., <sup>2</sup>Osaka Med. & Farm. Univ., Dept. Trans Res., <sup>3</sup>Gifu Univ., Uni. Grad. Sch., Drug. Med. Info. Sci.)

非アルコール性脂肪性肝炎由来の肝細胞癌におけるワールブルグ効果の重要性

猪俣 陽介<sup>1</sup>、谷口 高平<sup>1,2</sup>、杉戸 信彦<sup>3</sup>、高野 義章<sup>1</sup>、有馬 純<sup>1</sup>、赤尾 幸博<sup>3</sup>、内山 和久<sup>1</sup>（<sup>1</sup>大阪医薬大・医・消化器外科、<sup>2</sup>大阪医薬大・研究支援セ・TR 部門、<sup>3</sup>岐阜大・連創・医療情報研究科）

#### J5-2-4 Integrated transcriptome and proteome analyses reveal the role of serum miRNAs as tumor suppressor

Chiori Omori, Atsuko Mizoguchi, Hiroko Sudo (Toray Industries, Inc. New Frontiers Res. Labs.)

オミクス解析による血液中 miRNA のがん抑制効果

大森 智穂、溝口 敦子、須藤 裕子（東レ（株）先端融合研）

#### J5-2-5 The system development to detect epitranscriptome of microRNAs as biomarkers in patients' blood with pancreatic cancer

Yu Takeda<sup>1,2</sup>, Masamitsu Konno<sup>2</sup>, Ayumu Asai<sup>2</sup>, Masatoshi Kitakaze<sup>1,2</sup>, Daisaku Yamada<sup>1</sup>, Shogo Kobayashi<sup>1</sup>, Masateru Taniguchi<sup>3</sup>, Masaki Mori<sup>1,4</sup>, Yuichiro Doki<sup>1</sup>, Hideyoshi Eguchi<sup>1</sup>, Hideshi Ishii<sup>1,2</sup> (<sup>1</sup>Dept. Gastroenterol. Surg., Grad. Sch. Med. Osaka Univ., <sup>2</sup>CoMIT, Grad. Sch. Med. Osaka Univ., <sup>3</sup>The Inst. Sci. & Industrial Res., Osaka Univ., <sup>4</sup>Dept. Surg. & Sci., Grad. Sch. Med. Sci., Kyushu Univ.)

膵臓がん患者の血液中バイオマーカーとしてのマイクロ RNA のエピトランスクリプトームを検出するシステムの開発

竹田 佑<sup>1,2</sup>、今野 雅允<sup>2</sup>、浅井 歩<sup>2</sup>、北風 雅敏<sup>1,2</sup>、山田 大作<sup>1</sup>、小林 省吾<sup>1</sup>、谷口 正輝<sup>3</sup>、森 正樹<sup>1,4</sup>、土岐 祐一郎<sup>1</sup>、江口 英利<sup>1</sup>、石井 秀始<sup>1,2</sup>（<sup>1</sup>大阪大・医・消化器外科、<sup>2</sup>大阪大・医・最先端医療イノベ、<sup>3</sup>大阪大・産業研究、<sup>4</sup>九州大・医・消化器・総合外科）

#### J5-2-6 Detection of splice-site-creating mutations causing abnormal alternative splicing using RNA-sequencing data.

Naoko Iida, Kenichi Chiba, Raul N. Mateos, Yuichi Shiraishi (Div. Genome Analysis Platform Development, Natl. Cancer Ctr. Res. Inst.)

RNA シーケンスデータのみを用いた splice site creating 変異の検出

飯田 直子、千葉 健一、Raul N. Mateos、白石 友一（国立がん研セ・研・ゲノム解析基盤開発）

## Japanese Oral Sessions

Room 11 Oct. 2 (Sat.) 9:00-10:15 J

### J11-4 Characteristics of cancer cells (4) がん細胞の特性 (4)

Chairperson: Satoshi Nagayama (Uji Tokushukai Med. Ctr.)  
座長：長山 聰（宇治徳洲会病院）

#### J11-4-1 Gastric gland mucin-specific O-glycan αGlcNAc regulates gastric cancer cell phenotypes by modulating MUC1 signal

Chifumi Fujii<sup>1,2</sup>, Jun Nakayama<sup>1</sup> (<sup>1</sup>Dept. Mol. Path., Sch. Med., Shinshu Univ., <sup>2</sup>Inst. Biomed. Sci., Shinshu Univ.)

胃腺粘液特異的糖鎖 αGlcNAc による胃がん細胞での MUC1 シグナル伝達制御

藤井 千文<sup>1,2</sup>、中山 淳<sup>1</sup>（<sup>1</sup>信州大・医・分子病理、<sup>2</sup>信州大・バイオメディカル研）

#### J11-4-2 Alteration of protein glycosylation in renal carcinogenesis

Yoshiko Kitazume<sup>1</sup>, Eri Arai<sup>1</sup>, Atsushi Matsuda<sup>2</sup>, Shuichi Kakuda<sup>3</sup>, Kentaro Ohara<sup>1,4</sup>, Akiko Maeshima<sup>4</sup>, Atsushi Kuno<sup>6</sup>, Teruhiko Yoshida<sup>7</sup>, Yae Kanai<sup>1</sup> (<sup>1</sup>Dept. Path., Keio Univ. Sch. of Med., <sup>2</sup>Dept. Biochem., Keio Univ. Sch. Med., <sup>3</sup>Project for Utilizing Glycans, Japan Bioindustry Association, <sup>4</sup>Dept. Path., Saiseikai Utsunomiya Hosp., <sup>5</sup>Dept. Pathol. & Clin. Lab., Natl. Cancer Ctr. Hosp., <sup>6</sup>Cell & Mol. Biotech. Res. Inst., Natl. Inst. AIST, <sup>7</sup>Fund. Innov. Oncol. Core, Natl. Cancer Ctr. Res. Inst.)

腎発がん過程におけるタンパク質の糖鎖修飾変化

北爪 賀子<sup>1</sup>、新井 恵吏<sup>1</sup>、松田 厚志<sup>2</sup>、角田 修一<sup>3</sup>、尾原 健太郎<sup>1,4</sup>、前島 亜希子<sup>5</sup>、久野 敦<sup>6</sup>、吉田 輝彦<sup>7</sup>、金井 弥栄<sup>1</sup>（<sup>1</sup>慶應大・医・病理教室、<sup>2</sup>慶應大・医・医化学、<sup>3</sup>一般財団法人バイオインダストリー協会、<sup>4</sup>済生会宇都宮病院・病理、<sup>5</sup>国立がん研セ・中央病院・病理科、<sup>6</sup>産総研・細胞分子工学研究部門、<sup>7</sup>国立がん研セ・FIOC）

#### J11-4-3 Structures and functions of O-glycans expressed in castration resistant prostate cancer cells

Daiki Yamamoto<sup>1</sup>, Takeo Kosaka<sup>2</sup>, Mototsugu Oya<sup>2</sup>, Toshinori Sato<sup>1</sup> (<sup>1</sup>Faculty of Sci. & Tech. Keio Univ., <sup>2</sup>Sch. of Med. Keio Univ.)

去勢抵抗性前立腺がん細胞に発現する O-結合型糖鎖の機能解析

山本 大樹<sup>1</sup>、小坂 威雄<sup>2</sup>、大家 基嗣<sup>2</sup>、佐藤 智典<sup>1</sup>（慶應大・理工学部、<sup>2</sup>慶應大・医）

#### J11-4-4 Induction of bisecting GlcNAc by microenvironment enhances malignant phenotypes in tumor

Yuki Ohkawa<sup>1</sup>, Kana Nakano<sup>1,2</sup>, Noriko Kanto<sup>1</sup>, Miyako Nakano<sup>1</sup>, Eiji Miyoshi<sup>2</sup>, Yoichiro Harada<sup>1</sup>, Naoyuki Taniguchi<sup>1</sup> (<sup>1</sup>Dept. Glyco-Oncology & Med. Chem, OICI, <sup>2</sup>Mol. Biochem. & Clin. Invest, Grad. Sch. Med., Osaka Univ., <sup>3</sup>Grad. Sch. of Advanced Sciences of Matter, Hiroshima Univ.)

細胞外環境により発現誘導されるバイセクト型糖鎖はがんの悪性形質を増強する

大川 祐樹<sup>1</sup>、中野 可菜<sup>1,2</sup>、貴戸 紀子<sup>1</sup>、中の 三弥子<sup>3</sup>、三善 英知<sup>2</sup>、原田 陽一郎<sup>1</sup>、谷口 直之<sup>1</sup>（<sup>1</sup>大阪国際がんセ・糖鎖オンコロジー部、<sup>2</sup>大阪大・医・機能診断科学、<sup>3</sup>広島大・統合生命科学研究科）

#### J11-4-5 Colorectal cancer derived Te-EVs function as tumor promoter by targeting monocytes via EVs-RNA.

Yuya Monoe<sup>1</sup>, Kentaro Jingushi<sup>1</sup>, Yoshiaki Takano<sup>2</sup>, Kohei Taniguchi<sup>3</sup>, Kazumasa Komura<sup>3</sup>, Hiroaki Hase<sup>1</sup>, Kazutake Tsujikawa<sup>1</sup> (<sup>1</sup>Lab. Mol. Cell. Physiol., Grad. Sch. Pharm. Sci., Osaka Univ., <sup>2</sup>Dept. Gastro Surg., Osaka Med. & Pharm. Univ., <sup>3</sup>Dept. Trans. Res, Osaka Med. & Pharm. Univ.)

大腸癌組織より放出される細胞外小胞は内包 RNA を介して腫瘍促進性に働く

物江 祐弥<sup>1</sup>、神宮寺 健太郎<sup>1</sup>、高野 義章<sup>2</sup>、谷口 高平<sup>3</sup>、小村 和正<sup>3</sup>、長谷 拓明<sup>1</sup>、辻川 和丈<sup>1</sup>（<sup>1</sup>大阪大・院薬・細胞生理、<sup>2</sup>大阪医薬大・医・消化器外科、<sup>3</sup>大阪医薬大・医・TR 部門）

#### J11-4-6 Role of LAMB3 in extracellular vesicles secretion and uptake

Nobuyuki Onishi, Makoto Watanabe, Takaaki Sato (Life Sci. Res. Ctr., Tech. Res. Lab., Shimadzu Corporation)

細胞外小胞の分泌や取り込みにおける LAMB3 の役割

大西 伸幸、渡辺 真、佐藤 孝明（島津製作所・基盤研・ライフ研）

## Japanese Oral Sessions

Room 11 Oct. 2 (Sat.) 10:15-11:30 J

**J11-5 Characteristics of cancer cells (5)**  
がん細胞の特性 (5)Chairperson: Akira Kobayashi (Doshisha Univ.)  
座長: 小林 聰 (同志社大)**J11-5-1 NRF3 contributes to tumorigenesis by activating mTORC1 through amino acid uptake and the folate metabolism pathway**  
Shuuhei Hirose<sup>1</sup>, Haruka Masuda<sup>1</sup>, Tomoyoshi Soga<sup>2</sup>, Tsuyoshi Waku<sup>1</sup>, Akira Kobayashi<sup>1</sup> (<sup>1</sup>Grad. Sch. of Life & Med. Sci., Doshisha Univ., <sup>2</sup>Fac. of Env. & Info. Stud., Keio Univ.)NRF3 はアミノ酸取り込みおよび葉酸代謝を介した mTORC1 活性化によって腫瘍増大に寄与する  
廣瀬 修平<sup>1</sup>、増田 遥<sup>1</sup>、曾我 朋義<sup>2</sup>、和久 剛<sup>1</sup>、小林 聰<sup>1</sup> (<sup>1</sup>同志社大・院生命医科学・医生命システム・<sup>2</sup>慶應大・環境情報・先端生命科学研)**J11-5-2 Hypoxia Activates SREBP2 in Bone Marrow Derived Cells for Tumorigenic Immunity**Miki Kato<sup>1</sup>, Ryuichi Nakahara<sup>1</sup>, Haruka Hirose<sup>2</sup>, Masashi Muramatsu<sup>3</sup>, Keisuke Maeda<sup>4</sup>, Sho Aki<sup>1</sup>, Rika Tsuchida<sup>1</sup>, Hiroyasu Kidoya<sup>4</sup>, Teppei Shimamura<sup>2</sup>, Tsuyoshi Osawa<sup>1</sup> (<sup>1</sup>Div. Integrative Nutrionics & Oncology, The Univ. of Tokyo, <sup>2</sup>Grad. Sch. of Med., The Univ. of Nagoya, <sup>3</sup>Div. mol. & Vascular Biol., The Univ. of Kumamoto, <sup>4</sup>Dept. Signal Transduction, The Univ. of Osaka)低酸素環境は、腫瘍形成免疫のために骨髄由来細胞の SREBP2 を活性化する  
加藤 美樹<sup>1</sup>、中原 龍一<sup>1</sup>、廣瀬 遥香<sup>2</sup>、村松 昌<sup>3</sup>、前田 啓介<sup>1</sup>、安藝 翔<sup>1</sup>、土田 里香<sup>1</sup>、木戸屋 浩康<sup>4</sup>、島村 徹平<sup>1</sup>、大澤 稔<sup>1</sup> (<sup>1</sup>東京大・先端研・ニュートリオミクス・腫瘍学、<sup>2</sup>名古屋大・院医・システム生物学、<sup>3</sup>熊本大・生命資源研、<sup>4</sup>大阪大・情報伝達分野)**J11-5-3 Identification of PDHX as a metabolic target for esophageal squamous cell carcinoma**Jun Inoue<sup>1</sup>, Masahiro Kishikawa<sup>1,2</sup>, Hitoshi Tsuda<sup>3</sup>, Yasuaki Nakajima<sup>4</sup>, Takahiro Asakage<sup>2</sup>, Johji Inazawa<sup>1,5</sup> (<sup>1</sup>Dept. Mol. Cytogenetics, Tokyo Med. & Dent. Univ. (TMDU), <sup>2</sup>Dept. Head & Neck Surg, TMDU, <sup>3</sup>Dept. Basic Path., Natl. Defense Med. College, <sup>4</sup>Dept. Surg. Gastroenterology, TMDU, <sup>5</sup>Bioresource Res. Ctr., TMDU)食道癌における治療標的としての代謝関連分子 PDHX の同定  
井上 純<sup>1</sup>、岸川 正大<sup>1,2</sup>、津田 均<sup>3</sup>、中島 康晃<sup>4</sup>、朝蔭 孝宏<sup>2</sup>、稻澤 讓治<sup>1,5</sup> (<sup>1</sup>東京医歯大・難研・分子細胞遺伝、<sup>2</sup>東京医歯大・頭頸部外科、<sup>3</sup>防衛医大・病態病理、<sup>4</sup>東京医歯大・食道外科、<sup>5</sup>東京医歯大・疾患バイオリソースセ)**J11-5-4 Exploiting vulnerabilities of triple negative breast cancer by targeting the mitochondrial BIG3-PHB2 large complex**Hitoshi Aihara<sup>1</sup>, Tetsuro Yoshimaru<sup>1</sup>, Masaya Ono<sup>2</sup>, Mitsunori Sasa<sup>3</sup>, Yasuo Miyoshi<sup>4</sup>, Toyomasa Katagiri<sup>1</sup> (<sup>1</sup>Div. Genome Med. Inst. Advanced M ed. Sci., Tokushima Univ., <sup>2</sup>Div. Chemother. Clin. Res., Natl. Cancer Ctr. R. Res. Inst., <sup>3</sup>Dept. Surg., Tokushima Breast Care Clinic, <sup>4</sup>Dept. Surg., Div. Breast Endocrine Surg., Hyogo College of Med.)

ミトコンドリア BIG3-PHB2 複合体の脆弱性を標的にしたトリプルネガティブ乳癌治療法の可能性考察

相原 仁<sup>1</sup>、吉丸 哲郎<sup>1</sup>、尾野 雅哉<sup>2</sup>、笛 三徳<sup>3</sup>、三好 康雄<sup>4</sup>、片桐 豊雅<sup>1</sup> (<sup>1</sup>徳島大・先端酵素学・ゲノム制御学、<sup>2</sup>国立がん研セ・臨床プロトコーム、<sup>3</sup>とくしまブレストケアクリニック・外科、<sup>4</sup>兵庫医大・病院・乳腺・内分泌外科)**J11-5-5 Glioma cells require one-carbon metabolism to survive glutamine starvation**

Kazuhiro Tanaka, Hiroaki Nagashima, Takashi Sasayama (Dept. NeuroSurg., Kobe Univ. Grad. Sch. of Med.)

グルタミン飢餓環境にあるグリオーマ細胞のセリン合成と一炭素代謝の調整  
田中 一寛、長嶋 宏明、篠山 隆司 (神戸大・院医・脳神経外科学)**J11-5-6 DNA methylation of HSD17B4 is involved in alterations of metabolic phenotype of breast cancer**Nobuaki Arai<sup>1</sup>, Naoko Hattori<sup>1</sup>, Satoshi Yamashita<sup>1</sup>, Hirofumi Mukai<sup>2</sup>, Toshikazu Ushijima<sup>1</sup> (<sup>1</sup>Div. Epigenomics, Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Med. Oncology, Natl. Cancer Ctr. Hosp. East)

HSD17B4 遺伝子の DNA メチル化は乳がん細胞の代謝的表現型を変化させる

新井 信晃<sup>1</sup>、服部 奈緒子<sup>1</sup>、山下 聰<sup>1</sup>、向井 博文<sup>2</sup>、牛島 俊和<sup>1</sup> (<sup>1</sup>国立がん研セ・研・エピゲノム、<sup>2</sup>国立がん研セ・東病院・腫瘍内科)

Room 12 Oct. 2 (Sat.) 9:00-10:15 J

**J14-9 Cancer basic, diagnosis and treatment (9): Renal cell cancer, bladder cancer and prostatic cancer**  
臓器がんの基礎・診断・治療 (9): 腎がん・膀胱がん・前立腺がんChairperson: Tomohiko Ichikawa (Dept. Urol., Grad. Sch. Med., Chiba Univ.)  
座長: 市川 智彦 (千葉大・院医・泌尿器学)**J14-9-1 A novel diagnostic technology for renal cell cancer using the exosomal mutated protein panel**Yuji Hakozaiki<sup>1,2</sup>, Yuta Yamada<sup>2</sup>, Yuriko Minegishi<sup>1</sup>, Yoshimi Haga<sup>1</sup>, Haruki Kume<sup>2</sup>, Koji Ueda<sup>1</sup> (<sup>1</sup>Cancer Proteomics group, CPM Ctr., JFCR, <sup>2</sup>Dept. Uro., Grad. Sch. Med., The Univ. of Tokyo)エクソソーム中変異タンパク質パネルによる新規腎癌診断技術開発  
箱崎 勇治<sup>1,2</sup>、山田 雄太<sup>2</sup>、峯岸 ゆり子<sup>1</sup>、芳賀 淑美<sup>1</sup>、久米 春喜<sup>2</sup>、植田 幸嗣<sup>1</sup> (<sup>1</sup> (公財) がん研・CPM セ・プロテオミクス解析 Gr、<sup>2</sup>東京大・医・泌尿器)**J14-9-2 Therapeutic Utility of ATM Inhibitor to Chemoradiation-Resistant Urothelial Carcinoma with Aberrant BUB1 Expression**Kazumasa Komura<sup>1</sup>, Teruo Inamoto<sup>1</sup>, Kunihiko Hinohara<sup>2</sup>, Kohei Taniguchi<sup>1</sup>, Haruhito Azuma<sup>1</sup> (<sup>1</sup>Osaka Med. & Pharm. Univ., <sup>2</sup>Nagoya Univ.)

BUB1 高発現を伴う化学放射線療法抵抗性尿路上皮がんへの ATM 阻害薬の有効性

小村 和正<sup>1</sup>、稻元 輝生<sup>1</sup>、日野原 邦彦<sup>2</sup>、谷口 高平<sup>1</sup>、東 治人<sup>1</sup> (<sup>1</sup>大阪医科薬科大・医・泌尿器科学教室、<sup>2</sup>名古屋大・院医)**J14-9-3 Preclinical evaluation of acute immune responses induced by apalutamide**Hirotugu Uemura<sup>1</sup>, Yurie Kura<sup>2</sup>, Eri Banno<sup>1</sup>, Mamoru Hashimoto<sup>1</sup>, Kazuko Sakai<sup>2</sup>, Kazutoshi Fujita<sup>1</sup>, Masahiro Nozawa<sup>1</sup>, Kazuhiko Yoshimura<sup>1</sup>, Kazuto Nishio<sup>2</sup>, Marco A. Develasco<sup>2</sup> (<sup>1</sup>Dept. Urol. Kindai Univ. Faculty of Med., <sup>2</sup>Dept. Genome Biol. Kindai Univ. Faculty of Med.)

アパルタミドが惹起する短期免疫反応の前臨床評価について

植村 天受<sup>1</sup>、倉 由吏恵<sup>2</sup>、坂野 恵里<sup>1</sup>、橋本 士<sup>1</sup>、坂井 和子<sup>2</sup>、藤田 和利<sup>1</sup>、野澤 昌弘<sup>1</sup>、吉村 一宏<sup>1</sup>、西尾 和人<sup>2</sup>、デベラスコ マルコ<sup>2</sup> (<sup>1</sup>近畿大・医・泌尿器科学教室、<sup>2</sup>近畿大・医・ゲノム生物学教室)**J14-9-4 The role of Zyxin in spheroid formation of human prostate cancer cells**Masatoshi Watanabe<sup>1</sup>, Hiroji Uemura<sup>2</sup> (<sup>1</sup>Dept. Oncol. Pathol., Sch. Med., Mie. Univ., <sup>2</sup>Dept. Urol&Renal Transplant, Yokohama Univ. Med. Ctr.)

前立腺癌スフェロイド形成における Zyxin の役割

渡邊 昌俊<sup>1</sup>、上村 博司<sup>2</sup> (<sup>1</sup>三重大・医・腫瘍病理、<sup>2</sup>横浜市大・セ・病院・泌尿器・腎移植科)**J14-9-5 Prospective evaluation of circulating microRNA profiling for the diagnosis of prostate cancer with PSA in the gray zone**Fumihiko Urabe<sup>1</sup>, Kojiro Tashiro<sup>1</sup>, Shunsuke Tsuzuki<sup>1</sup>, Hiroshi Sasaki<sup>1</sup>, Miyuki Ide<sup>2</sup>, Atsuko Mizoguchi<sup>2</sup>, Satoko Takizawa<sup>2</sup>, Takahiro Kimura<sup>1</sup>, Shin Egawa<sup>1</sup> (<sup>1</sup>Dept. Urol., Jikei Univ., Sch. Med., <sup>2</sup>Toray Industries, Inc.)

PSA グレーゾーン症例における血中マイクロ RNA プロファイルを用いた前立腺癌診断マーカーの開発

占部 文彦<sup>1</sup>、田代 康次郎<sup>1</sup>、都筑 俊介<sup>1</sup>、佐々木 裕<sup>1</sup>、井手 深雪<sup>2</sup>、溝口 敦子<sup>2</sup>、滝澤 智子<sup>2</sup>、木村 高弘<sup>1</sup>、額川 晋<sup>1</sup> (<sup>1</sup>慈惠医大・医・泌尿器、<sup>2</sup>東レ (株))**J14-9-6 Mechanism Analysis of antitumor effect of magnetic iron oxide nanoparticles on prostate cancer cells**Lisa Oshio<sup>1</sup>, Yasuhisa Nakagawa<sup>3</sup>, Masatoshi Watanabe<sup>3</sup>, Kazutoshi Iijima<sup>2</sup> (<sup>1</sup>Grad. Sch. of Sci., Yokohama Natl. Univ., <sup>2</sup>Fac. Eng., Yokohama Natl. Univ., <sup>3</sup>Dept. Oncol. Pathol., Sch. Med., Mie Univ.)

磁性体酸化鉄ナノ粒子の前立腺癌細胞に対する抗腫瘍メカニズムの解析

大塩 里紗<sup>1</sup>、中川 泰久<sup>3</sup>、渡邊 昌俊<sup>3</sup>、飯島 一智<sup>2</sup> (<sup>1</sup>横浜国大・院・理工、<sup>2</sup>横浜国大・院・工研院、<sup>3</sup>三重大・医・腫瘍病理)

## Japanese Oral Sessions

Room 12 Oct. 2 (Sat.) 10:15-11:30 J

### J14-10 Cancer basic, diagnosis and treatment (10): Hematopoietic malignancy 臓器がんの基礎・診断・治療 (10):造血器腫瘍

Chairperson: Kaoru Uchimaru (Grad. Sch. Frontier Sci., The Univ. of Tokyo)  
座長: 内丸 薫 (東京大・院新領域・創成科学)

#### J14-10-1 Targeting Overwhelming Mitochondrial Fragmentation in Myelodysplastic syndromes-related Bone Marrow Failure

Yasuhige Aoyagi<sup>1</sup>, Yoshihiro Hayashi<sup>1</sup>, Natsumi Matsunuma<sup>1</sup>, Daichi Sadato<sup>2</sup>, Yuka Harada<sup>2</sup>, Hironori Harada<sup>1</sup> (Lab. Oncology, Tokyo Univ. of Pharm. & Life Sci., Tokyo, Japan, <sup>2</sup>Translational Res. Ctr., Tokyo Metropolitan Komagome Hosp., Tokyo)

ミトコンドリアダイナミクス制御異常を標的としたMDS骨髓不全症の新規治療戦略

青柳 泰成<sup>1</sup>、林 嘉宏<sup>1</sup>、松沼 菜摘<sup>1</sup>、貞貞 大地<sup>2</sup>、原田 結花<sup>2</sup>、原田 浩徳<sup>1</sup> (<sup>1</sup>東京薬科大・腫瘍医科学研究室、<sup>2</sup>東京都立駒込病院・臨床研究支援室)

#### J14-10-2 Involvement of IFN $\gamma$ in the development of MDS/-7 in patients with SAMD9/9L syndromes

Akiko Nagamachi<sup>1</sup>, Hirotaka Matsui<sup>2</sup>, Akinori Kanai<sup>3</sup>, Satoru Shinriki<sup>2</sup>, Toshiya Inaba<sup>3</sup> (<sup>1</sup>Radiation Res. Ctr., RIRBM, Hiroshima Univ., Japan, <sup>2</sup>Grad. Sch. of Med. Sci., Kumamoto Univ., Japan, <sup>3</sup>Div. Mol. Oncology, RIRBM, Hiroshima Univ., Japan)

SAMD9/9L症候群の7q-/MDS多発におけるIFN $\gamma$ シグナルの関与

長町 安希子<sup>1</sup>、松井 啓隆<sup>2</sup>、金井 昭教<sup>3</sup>、神力 悟<sup>2</sup>、稻葉 俊哉<sup>3</sup> (<sup>1</sup>広島大・原医研・先端医学実験施設、<sup>2</sup>熊本大・臨床病態解析学分野、<sup>3</sup>広島大・原医研・がん分子病態研究分野)

#### J14-10-3 UCHL5 overexpression confers resistance to BETi in MLL-r leukemia cells by suppressing degradation of BRD4 protein

Keigo Amari<sup>1</sup>, Yuki Toda<sup>1</sup>, Shigekuni Hosogi<sup>1</sup>, Toshihiko Imamura<sup>2</sup>, Eishi Ashihara<sup>1</sup> (<sup>1</sup>Dept. Clin. Transl. Physiol., Kyoto Pharm. Univ., Kyoto, Japan, <sup>2</sup>Dept. Pediatr., Kyoto Pref. Univ. Med., Kyoto, Japan)

MLL再構成陽性白血病細胞におけるUCHL5の過剰発現はBRD4タンパク質の分解を抑制することでBET阻害剤耐性に寄与する

甘利 圭悟<sup>1</sup>、戸田 侑紀<sup>1</sup>、細木 誠之<sup>1</sup>、今村 俊彦<sup>2</sup>、芦原 英司<sup>1</sup> (<sup>1</sup>京都薬科大・病態生理学分野、<sup>2</sup>京都府立医大・小児科学講座)

#### J14-10-4 eIF4B is a novel target of CAMK2G and promotes proliferation of malignant cells in myelofibrosis.

Ken Sasaki<sup>1</sup>, Kazuki Taoka<sup>1</sup>, Yosuke Masamoto<sup>1</sup>, Hideaki Mizuno<sup>1</sup>, Mineo Kurokawa<sup>1,2</sup> (<sup>1</sup>Dept. Hematology & Oncology, The Univ. of Tokyo, <sup>2</sup>Dept. Cell Therapy, The Univ. of Tokyo Hosp.)

骨髄線維症においてeIF4BはCAMK2Gの標的であり、細胞増殖を促進している

佐々木 謙<sup>1</sup>、田岡 和城<sup>1</sup>、正本 広介<sup>1</sup>、水野 秀明<sup>1</sup>、黒川 峰夫<sup>1,2</sup> (<sup>1</sup>東京大・医附属病院・血液・腫瘍内科、<sup>2</sup>東京大・医附属病院・無菌治療部)

#### J14-10-5 miR-26a downregulation lead to metastasis via overexpression of interleukin-22 in cutaneous T-cell lymphoma

Yuka Matsuda<sup>1</sup>, Sho Ikeda<sup>2</sup>, Akihiro Kitadate<sup>3</sup>, Yuto Takahashi<sup>1</sup>, Ko Abe<sup>2</sup>, Fumito Abe<sup>2</sup>, Naoto Takahashi<sup>2</sup>, Hideki Wakui<sup>1</sup>, Hiroyuki Tagawa<sup>2</sup> (<sup>1</sup>Dept. Life Sci. Fac. Engineering Sci., Akita Univ., <sup>2</sup>Dept. Hematology, Nephrology, Rheumatology, Akita Univ.)

皮膚T細胞性リンパ腫においてmiR-26aの抑制はIL-22の過剰発現を介して転移に寄与する

松田 悠佳<sup>1</sup>、池田 翔<sup>2</sup>、北館 明宏<sup>2</sup>、高橋 祐斗<sup>1</sup>、阿部 混<sup>2</sup>、阿部 史人<sup>2</sup>、高橋 直人<sup>2</sup>、涌井 秀樹<sup>1</sup>、田川 博之<sup>2</sup> (<sup>1</sup>秋田大・理工・生命科学、<sup>2</sup>秋田大・医・血液腎臓原病内科)

#### J14-10-6 Generation and evaluation of immune check point molecules-modified NK cells in cell therapy for AML

Yuta Kaito<sup>1</sup>, Emi Sugimoto<sup>2</sup>, Susumu Goyama<sup>3</sup>, Junji Tanaka<sup>4</sup>, Hideto Tamura<sup>5</sup>, Yoichi Imai<sup>1</sup> (<sup>1</sup>Dept. Hematology/Oncology, IMSUT Hosp., The Univ. of Tokyo, <sup>2</sup>Div. Cell. Therapy, IMSUT, <sup>3</sup>Grad. Sch. of Frontier Sci., The Univ. of Tokyo, <sup>4</sup>Dept. Hematology, Tokyo Women's Med. Univ., <sup>5</sup>Dept. Hematology, Saitama Med. Ctr., Dokkyo Med. Univ.)

急性骨髓性白血病に対する改変NK細胞療法の検討

海渡 裕太<sup>1</sup>、杉本 純美<sup>2</sup>、合山 進<sup>3</sup>、田中 淳司<sup>4</sup>、田村 秀人<sup>5</sup>、今井 陽一<sup>1</sup> (<sup>1</sup>東京大・医科研・附属病院・血液腫瘍内科、<sup>2</sup>東京大・医科研・細胞療法分野、<sup>3</sup>東京大・院新領域創成科学研究科、<sup>4</sup>東京女子医大・血液内科、<sup>5</sup>獨協大・埼玉医療セ・血液内科)

## Japanese Oral Sessions

Room 13 Oct. 2 (Sat.) 9:00-10:15 J

### J3 Virus, infection, inflammation and cancer ウイルス・細菌感染・炎症とがん

Chairperson: Tohru Kiyono (Project for Prevention of HPV-related Cancer Exploratory Oncology Res. & Clin. Trial Ctr., Natl. Cancer Ctr.)

座長: 清野 透 (国立がん研セ・先端医療開発セ・HPV関連がん予防・治療プロジェクト)

#### J3-1 EBV partially positive gastric cancer: evidence of hit-and-run carcinogenesis?

Atsushi Kondo<sup>1</sup>, Hirofumi Rokutan<sup>2</sup>, Akiko Kunita<sup>1</sup>, Aya Ushiku<sup>2</sup>, Tetsuo Ushiku<sup>1,2</sup> (<sup>1</sup>Dept. Pathol., Grad. Sch. of Med., The Univ. of Tokyo, <sup>2</sup>Dept. Pathol., The Univ. of Tokyo Hosp.)

EBV部分陽性胃癌: 抜けたか?衝突か?

近藤 篤史<sup>1</sup>、六反 啓文<sup>2</sup>、国田 朱子<sup>1</sup>、牛久 綾<sup>2</sup>、牛久 哲男<sup>1,2</sup> (<sup>1</sup>東京大・人体病理学・病理診断学分野、<sup>2</sup>東京大・医附属病院・病理部)

#### J3-2 Evaluation of the risk of HTLV-1 associated diseases by analyzing the host immune response

Asami Yamada, Junichiro Yasunaga, Kisato Nosaka, Masao Matsuoka (Dept. Hematol., Grad. Sch. Med. & Facul. Life Sci., Kumamoto Univ.)

免疫応答の解析によるHTLV-1関連疾患のリスク評価

山田 麻美、安永 純一朗、野坂 生郷、松岡 雅雄 (熊本大・血液・膠原病・感染症内科学)

#### J3-3 CADM1 promotes organ infiltration of adult T-cell leukemia/lymphoma (ATL) cells

Yutaka Kasai<sup>1</sup>, Takeharu Sakamoto<sup>1,2</sup>, Takeshi Ito<sup>1</sup>, Yoshinori Murakami<sup>1</sup> (<sup>1</sup>Div. Mol. Pathol., Inst. Med. Sci., Univ. Tokyo, <sup>2</sup>Dept. Syst. Biol., Inst. Med. Pharm. & Health Sci., Kanazawa Univ.)

細胞接着分子CADM1は成人T細胞白血病/リンパ腫(ATL)細胞の臟器浸潤を促進する

笠井 優<sup>1</sup>、坂本 敏治<sup>1,2</sup>、伊東 剛<sup>1</sup>、村上 善則<sup>1</sup> (<sup>1</sup>東京大・医科研・人癌因遺伝子、<sup>2</sup>金沢大・医薬保健研究域・システム生物学)

#### J3-4 Association between heterogeneity in HTLV-1-infected cells and disease status analyzed at single-cell level

Miho Watanabe, Junichirou Yasunaga, Kisato Nosaka, Masao Matsuoka (Dept. Hematology, Rheumatology & Infectious Disease, Kumamoto Univ.)

シングルセル解析により明らかとなるHTLV-1感染細胞の不均一性と病態との関連

渡辺 美穂、安永 純一朗、野坂 生郷、松岡 雅雄 (熊本大・病院・血液感染症膠原病内科学)

#### J3-5 Development of an in vivo delivery system for CRISPR/Cas9-mediated targeting of hepatitis B virus cccDNA

Meh Kayesh<sup>1</sup>, Yutaka Amako<sup>2</sup>, Md Hashem<sup>1</sup>, Naoki Yamamoto<sup>3</sup>, Masaya Sugiyama<sup>3</sup>, Masashi Mizokami<sup>3</sup>, Michinori Kohara<sup>2</sup>, Kyoko Kohara<sup>1</sup> (<sup>1</sup>Kagoshima Univ., <sup>2</sup>Tokyo Metropolitan Inst. Med. Sci., <sup>3</sup>Natl. Ctr. for Global Health & Med.)

B型肝炎ウイルスcccDNAを標的としたCRISPR/Cas9システムの生体内送達法の開発

ケアシュ モハメド<sup>1</sup>、尼子 豊<sup>2</sup>、ハシェム モハメド<sup>1</sup>、山本 直樹<sup>2</sup>、杉山 真也<sup>3</sup>、溝上 雅史<sup>3</sup>、小原 道法<sup>2</sup>、小原 恭子<sup>1</sup> (<sup>1</sup>鹿児島大・共同獣医、<sup>2</sup>東京都医学総合研、<sup>3</sup>国立国際医)

#### J3-6 *H. pylori* adhesion to gastric cells promotes Epstein-Barr virus infection by inducing viral receptor expression

Hisashi Iizasa, Sintayehu Fekadu, Visi Kartika, Daichi Onomura, Hironori Yoshiyama (Dept. Micro., Fac. Med., Shimane Univ.)

ピロリ菌の胃細胞への接着は、ウイルス受容体の発現を誘導することによりEpstein-Barrウイルスの感染を促進する

飯苞 久、Sintayehu Fekadu、カーティカ アンディフィジイ、小野 村 大地、吉山 裕規 (島根大・医・微生物)

## Symposia

Room 14 Oct. 2 (Sat.) 9:00-11:30

E

S18

## Latest evidence and perspective on liquid biopsy

リキッドバイオプシーの最新知見と展望

Chairpersons: Takayuki Yoshino (Dept. Gastroenterology & Gastrointestinal Oncology, Natl. Cancer Ctr. Hosp. East)  
Koji Ueda (Cancer Proteomics group, CPM Ctr., JFCR)

座長：吉野 孝之（国立がん研セ・東病院・消化管内科）  
植田 幸嗣（がん研・CPMセ・プロテオミクス解析Gr）

Liquid biopsy is considered as one of the ideal diagnostic modalities for cancer, which provides substantial amount of molecular information with minimal invasiveness. So far, 3 targeted ctDNA diagnostic kits (cobas EGFR Mutation Test, Archer MET, and OncoBEAM RAS CRC) are approved as the health insurance diagnostics in Japan. Most recently, the first comprehensive genomic profiling (CGP) liquid biopsy, FoundationOne Liquid CDx, is also approved as clinical test. In association with these trends on ctDNA liquid biopsy diagnostics, the speakers in this session will share the latest information about the cutting-edge analytical technologies and activities of the large-scaled clinical studies (e.g., K-MASTER in Korea or CIRCULATE-Japan). In addition to ctDNA, other molecular species are also recognized as potential targets for cancer liquid biopsy. Indeed, the promising diagnostic datasets using extracellular vesicles or urinary miRNAs will be provided by the speakers. Based on these up-to-date knowledge, we'd like to discuss about the future clinical usage of liquid biopsy diagnostics in cancer treatment.

## S18-1 The K-MASTER project: innovative Cancer Precision Medicine initiative using liquid biopsy

Yeulhong Kim (The Dept. Internal Med., Korea Univ.)

## S18-2 Current and Future Paradigms of Circulating Tumor DNA Analysis across All Stages of Cancer Care

Yoshiaki Nakamura (Dept. Gastrointestinal Oncology, Natl. Cancer Ctr. Hosp. East)

がん診療における血中循環腫瘍 DNA 解析の現状と未来のパラダイム  
中村 能章（国立がん研セ・東病院・消化管内科）

## S18-3 Liquid biopsy for precision oncology: Cutting edge technology meets personalized cancer management

Siewkee Low<sup>1</sup>, Hiuting Chan<sup>1</sup>, Yoonming Chin<sup>1</sup>, Ken Uchibori<sup>2</sup>, Ryo Ariyasu<sup>2</sup>, Tomoko Shibayama<sup>3</sup>, Naoki Fukuda<sup>4</sup>, Junichi Tomomatsu<sup>4</sup>, Ipppei Fukada<sup>3</sup>, Satoshi Nagayama<sup>5</sup>, Takayuki Ueno<sup>3</sup>, Makoto Nishio<sup>2</sup>, Shunji Takahashi<sup>4</sup>, Yusuke Nakamura<sup>1</sup> (<sup>1</sup>Cancer Precision Med. Ctr., JFCR, <sup>2</sup>Thoracic Med. Oncology, The Cancer Inst. Hosp., JFCR, <sup>3</sup>Breast Oncology Ctr., The Cancer Inst. Hosp., JFCR, <sup>4</sup>Dept. Med. Oncology, The Cancer Inst. Hosp., JFCR, <sup>5</sup>Colorectal Surg. Dept., The Cancer Inst. Hosp., JFCR.)

## S18-4 Extracellular vesicles as a novel platform for cancer diagnosis

Takahiro Ochiya (Dept. Mol. Cell Biol. Tokyo Med. Univ.)

癌の新規診断のモダリティー：エクソソーム  
落谷 孝広（東京医大・医総研・分子細胞治療）

## S18-5 Current Status and Future Prospects liquid biopsy based CGP in Japan

Kazuto Nishio (Dept. Genome Biol, Kindai Univ. Faculty Med.)

日本におけるリキッドバイオプシーベースのCGPの現状と今後の展望  
西尾 和人（近畿大・医・ゲノム生物学教室）

## S18-6 Urinary microRNA profiles: identification of let-7e as a novel non-invasive urine biomarker for gastric cancer

Yusuke Takashima, Shuhui Komatsu, Hajime Kamiya, Keiji Nishibeppu, Jun Kiuchi, Taisuke Imamura, Takuma Ohashi, Hiroki Shimizu, Tomohiro Arita, Hirotaka Konishi, Atsushi Shiozaki, Takeshi Kubota, Hitoshi Fujiwara, Kazuma Okamoto, Eigo Otsuji (Dept. Digestive Surg., Kyoto Pref. Univ. Med.)

消化器癌領域における尿中遊離 microRNA を用いた非侵襲診断法についての検討

高嶋 祐助、小松 周平、神谷 肇、西別府 敬士、木内 純、今村 泰輔、大橋 拓馬、清水 浩紀、有田 智洋、小西 博貴、塙崎 敦、窪田 健、藤原 斎、岡本 和真、大辻 英吾（京都府立医大・消化器外科）

## Japanese Oral Sessions

Room 13 Oct. 2 (Sat.) 10:15-11:30

J

J20/21 Cell therapy and regeneration medicine/gene therapy  
細胞治療と再生医学・遺伝子治療

Chairperson: Hiroshi Tazawa (Ctr. for Innovative Clin. Med., Okayama Univ. Hosp.)

座長：田澤 大（岡山大・病院・新医療研究開発セ）

## J20/21-1 Engineering iPS cell derived T cells to improve migration and persistence for anti-solid tumor immunotherapy

Akihiro Ishikawa<sup>1</sup>, Masazumi Waseda<sup>1</sup>, Yohei Kawai<sup>1</sup>, Atsutaka Minagawa<sup>1</sup>, Tatsuki Ueda<sup>1</sup>, Tomoko Ishii<sup>1</sup>, Yasushi Uemura<sup>2</sup>, Kouji Tamada<sup>3</sup>, Tetsuya Nakatsura<sup>2</sup>, Shin Kaneko<sup>1</sup> (<sup>1</sup>Kyoto Univ., CiRA, Dept. Cell Growth & Differentiation, <sup>2</sup>NCC-EPOC, Div. Cancer Immunotherapy, <sup>3</sup>Yamaguchi Univ. Grad. Sch. of Med., Dept. Immunol.)

圆形腫瘍に対する遊走・長期生存能を向上させた遺伝子改変 iPS 細胞由来 T 細胞の開発

石川 晃大<sup>1</sup>、早稻田 真澄<sup>1</sup>、河合 洋平<sup>1</sup>、南川 淳隆<sup>1</sup>、上田 樹<sup>1</sup>、石井 智子<sup>1</sup>、植村 靖史<sup>2</sup>、玉田 耕司<sup>3</sup>、中面 哲也<sup>2</sup>、金子 新<sup>1</sup>（<sup>1</sup>京都大・CiRA 増殖分化機構研究部門、<sup>2</sup>国立がん研セ・免疫療法開発分野、<sup>3</sup>山口大・医・免疫学）

## J20/21-2 Novel oncolytic adenovirus fully composed of adenovirus serotype 35 for treatment of pancreatic cancer

Ryosuke Ono<sup>1</sup>, Fuminori Sakurai<sup>1</sup>, Hiroyuki Mizuguchi<sup>1,2,3,4</sup>  
(<sup>1</sup>Biochem. Mol. Biol., Grad. Sch. Pharm., the Univ. of Osaka, <sup>2</sup>Lab. of Hepa Reg. National Inst. Biomed. Innov. Health. Nutri., <sup>3</sup>Global Ctr. For Med. Engi. Informa. the Univ. of Osaka, <sup>4</sup>OTRL, the Univ. of Osaka)

膵臓癌に対する 35 型アデノウイルスを基盤とした新規腫瘍溶解性アデノウイルスの抗腫瘍効果の評価

小野 良輔<sup>1</sup>、櫻井 文教<sup>1</sup>、水口 裕之<sup>1,2,3,4</sup>（<sup>1</sup>大阪大・院薬・分子生物学、<sup>2</sup>医薬健栄研、<sup>3</sup>大阪大・MEIセ、<sup>4</sup>大阪大・先導）

## J20/21-3 The effect of recombinant measles virus cancer therapy against distant tumor.

Kanako Moritoh<sup>1</sup>, Tomoko Fujiyuki<sup>1</sup>, Hiroki Sato<sup>1</sup>, Misako Yoneda<sup>1</sup>, Chieko Kai<sup>1</sup> (Inst. of Industrial Sci., The Univ. of Tokyo)

組換え麻疹ウイルス癌治療の遠隔腫瘍に対する効果の検討

森藤 可南子、藤幸 知子、佐藤 宏樹、米田 美佐子、甲斐 知恵子（東京大・生産研）

## J20/21-4 Therapeutic effect of an oncolytic recombinant measles virus in mouse xenograft model of refractory breast cancer cells

Tomoko Fujiyuki<sup>1</sup>, Misako Yoneda<sup>2</sup>, Kanako Moritoh<sup>1</sup>, Hiroki Sato<sup>1</sup>, Chieko Kai<sup>1</sup> (<sup>1</sup>Infect. Dis. Contr. Sci., Inst. Indust. Sci., The Univ. Tokyo, <sup>2</sup>Med. Virol., Inst. Indust. Sci., The Univ. Tokyo)

腫瘍溶解性麻疹ウイルスの難治性乳がん細胞異種移植モデルにおける治療効果

藤幸 知子<sup>1</sup>、米田 美佐子<sup>2</sup>、森藤 可南子<sup>1</sup>、佐藤 宏樹<sup>1</sup>、甲斐 知恵子<sup>1</sup>（東京大・生産研・感染症制御学、<sup>2</sup>東京大・生産研・ウイルス医学）

## J20/21-5 Antisense oligonucleotide targeting SRRM4 alters REST splicing to exhibit anti-tumor effects.

Masahito Shimojo<sup>1</sup>, Satoshi Obika (Osaka Univ. Grad. Sch. Pharm. Sci.)

SRRM4 標的ギャップマー型アンチセンスオリゴヌクレオチドは腫瘍抑制因子 REST のスプライシングに影響し抗腫瘍効果を示す  
下條 正仁、小比賀 聰（大阪大・院・薬学研究科）

## J20/21-6 Development of novel and fully-murinized assessment system for CAR-T therapy

Kohei Negishi<sup>1</sup>, Hiroshi Fujiwara<sup>1</sup>, Yasushi Akahori<sup>1</sup>, Hiroshi Miwa<sup>1</sup>, Linan Wang<sup>1</sup>, Koichi Furukawa<sup>2</sup>, Hiroshi Shiku<sup>1</sup> (<sup>1</sup>Dept. Personalized Cancer Immunother., Mie Univ., Grad. Sch. Med., <sup>2</sup>Dept. Biomed. Sci., Chubu Univ. Grad. Sch. Life Health Sci.)

完全マウス化による新たなCAR-T療法評価系の構築

根岸 航平<sup>1</sup>、藤原 弘<sup>1</sup>、赤堀 泰<sup>1</sup>、三輪 啓志<sup>1</sup>、王 立楠<sup>1</sup>、古川 鋼一<sup>2</sup>、珠玖 洋<sup>1</sup>（<sup>1</sup>三重大・院・個別化がん免疫治療学、<sup>2</sup>中部大・院・生命医科学）

INFORMATION

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INDEX Authors Keywords Chairpersons

## Symposia

Room 15 Oct. 2 (Sat.) 9:00-11:30

S19

### New horizons in tumor microenvironment regulation targeting inflammation and angiogenesis 炎症と血管新生を標的としたがん微小環境制御の新展開

Chairpersons: Tetsuro Watabe (Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ.)  
Masanobu Oshima (Div. Genet., Cancer Res. Inst., Kanazawa Univ.)

座長: 渡部 徹郎 (東京医歯大・医歯総・病態生化)  
大島 正伸 (金沢大・がん研・腫瘍遺伝学)

Dynamic interactions of cancer cells with their microenvironment consisting of stromal cells and extracellular matrix components determines the characteristics of cancer cells, which leads to cancer progression and metastasis. Components of tumor stroma, including tumor vessels, cancer associate fibroblasts and immune cells, are also affected by cancer cells and communicate with them. Increasing lines of evidence have suggested that these mutual interaction between cancer cells and tumor stroma alter the tumor microenvironment more inflammatory, fibroblastic and resistant to multiple types of drugs. Therefore, understanding the underlying cellular and molecular mechanisms governing these interactions can be used as a novel strategy to disrupt cancer cell interplay and contribute to the development of efficient therapeutic strategies to fight cancer. In this symposium, leading scientists in the field of cancer metastasis, inflammation, tumor angiogenesis, tumor immunology and drug development will introduce the recent progress in their fields, and discuss how to develop effective and safe cancer therapies by targeting the tumor microenvironment.

#### S19-1 Targeting Inflammation-Driven Cancer Microenvironment of Aggressive Breast Cancer

Naoto T. Ueno, Takashi Semba, Xiaoping Wang (The Univ. of Texas MD Anderson Cancer Ctr.)

#### S19-2 Our trials to improve cancer immunotherapy through modulating immune cells in the tumor-microenvironment

Kouji Matsushima (MRIID, Res. Inst. Biomed. Sci., Tokyo Univ. Sci.)

腫瘍微小環境の免疫細胞制御によるがん免疫療法改善のための我々の試み

松島 純治 (東京理科大・生命医科学・炎症免疫)

#### S19-3 The fibrotic microenvironment that promotes polyclonal metastasis of intestinal tumors

Hiroko Oshima<sup>1</sup>, Mizuho Nakayama<sup>1</sup>, Kei Takahashi<sup>2</sup>, Kohei Miyazono<sup>2</sup>, Masanobu Oshima<sup>1</sup> (<sup>1</sup>Div. Genetics, Cancer Res. Inst., Kanazawa Univ., <sup>2</sup>Dept. Mol. Path., Grad. Sch. Med., Univ. Tokyo)

腸管腫瘍のポリクローナル転移を促進する線維性微小環境

大島 浩子<sup>1</sup>、中山 瑞穂<sup>1</sup>、高橋 恵生<sup>2</sup>、宮園 浩平<sup>2</sup>、大島 正伸<sup>1</sup> (<sup>1</sup>金沢大・がん進展制御研、<sup>2</sup>東京大・院医)

#### S19-4 Roles of TGF-β signals in the regulation of proliferation and migration of cancer cells

Tetsuro Watabe (Grad. Sch. Med. Dent. Sci., Tokyo Med. Dent. Univ.)

がん細胞の増殖と運動性の制御におけるTGF-β シグナルの役割

渡部 徹郎 (東京医歯大・医歯総・病態生化)

#### S19-5 Protein engineering to target cancer drugs to the tumor microenvironment, making immunotherapy safe and effective

Jun Ishihara, Ako Ishihara (Imperial College London)

癌特異的な微小環境を用いて、抗がん剤を癌に届けることで、抗がん剤をより安全に効果的にする

石原 純、石原 亜香 (インペリアルカレッジロンドン)

#### S19-6 Tumor vascular promotion for effective cancer therapy

Nobuyuki Takakura (Dept. Signal Transduction, RIMD, Osaka Univ.)

腫瘍血管誘導という新しいがん治療戦略

高倉 伸幸 (大阪大・微研・情報伝達分野)

## Introduction Course for Current Cancer Research

Room 16 Oct. 2 (Sat.) 9:00-9:30

IC9

### Cancer Research Drives Life Science

生命科学を牽引するがん研究

Chairperson: Yoshinori Murakami (Div. Mol. Pathol., Inst. Med. Sci, UTokyo)

座長: 村上 善則 (東京大・医科研・人癌病因遺伝子)

#### IC9 Cancer Research Drives Life Science

Hiroyuki Mano (Natl. Cancer Ctr.)

生命科学を牽引するがん研究

間野 博行 (国立がん研セ)

## Introduction Course for Current Cancer Research

Room 16 Oct. 2 (Sat.) 9:40-10:10

IC10

### Single Cell and Spatial Transcriptomic Analysis of Cancers

がんのシングルセル/空間トランскriptom解析

Chairperson: Yoshinori Murakami (Div. Mol. Pathol., Inst. Med. Sci, UTokyo)

座長: 村上 善則 (東京大・医科研・人癌病因遺伝子)

#### IC10 Single Cell and Spatial Transcriptomic Analysis of Cancers

Yutaka Suzuki (Grad. Sch. of Frontier Sci., UTokyo)

がんのシングルセル/空間トランスクriptom解析

鈴木 穎 (東京大・新領域)

## Introduction Course for Current Cancer Research

Room 16 Oct. 2 (Sat.) 10:20-10:50

IC11

### How to motivate young doctors to start translational research

若手臨床医が基礎研究に携わる意義と方法

Chairperson: Yoshinori Murakami (Div. Mol. Pathol., Inst. Med. Sci, UTokyo)

座長: 村上 善則 (東京大・医科研・人癌病因遺伝子)

#### IC11 How to motivate young doctors to start translational research

Mototsugu Oya, Nobuyuki Tanaka, Takeo Kosaka (Dept. Urology, Keio Univ. Sch. of Med.)

若手臨床医が基礎研究に携わる意義と方法

大家 基嗣、田中 伸之、小坂 威雄 (慶應大・医・泌尿器科)

## Introduction Course for Current Cancer Research

Room 16 Oct. 2 (Sat.) 11:00-11:30

IC12

### Structure-based development of novel genome-editing tools towards accurate and safe gene therapy

正確・安全な遺伝子治療を目指した、立体構造に基づく新規ゲノム編集ツールの開発

Chairperson: Yoshinori Murakami (Div. Mol. Pathol., Inst. Med. Sci, UTokyo)

座長: 村上 善則 (東京大・医科研・人癌病因遺伝子)

#### IC12 Structure-based development of novel genome-editing tools towards accurate and safe gene therapy

Osamu Nureki (Grad. Sch. of Sci., The Univ. of Tokyo)

正確・安全な遺伝子治療を目指した、立体構造に基づく新規ゲノム編集ツールの開発

濱木 理 (東京大・院理)

**Special Programs**

Room 17 Oct. 2 (Sat.) 9:30-11:30

J

**SP6****Cancer care delivery during COVID-19 pandemic**

COVID-19 流行下におけるがん診療

Chairpersons: Takeshi Terashima (Dept. Respiratory Med., Tokyo Dent. College Ichikawa General Hosp.)  
 Masao Matsuoka (Dept. Hematol, Rheumatol, & Inf Dis, Kumamoto Univ.)

座長：寺嶋 賀（東京歯科大・市川総合病院呼吸器内科）

松岡 雅雄（熊本大・生命科学・血液・膠原病・感染症内科学講座）

COVID-19 pandemic has caused many cases of hospital outbreaks of COVID-19. Surgical procedures are risk factors for severe disease or death due to COVID-19. Visits to hospital, medical examinations, and procedures have been restricted to prevent the nosocomial transmission among patients and healthcare providers. Care for patients with cancer has been forced to shift to care for patients with COVID-19. Patients have hesitates to visit hospitals due to the fear of infection within the hospital. Medical staff and facilities have been struggling to maintain the same quality of medical care as in the pre-pandemic era and prevent outbreaks in the hospitals.

We would like to discuss cancer care delivery during the COVID-19 pandemic, especially the situation here in Japan. We have five presenters, and they will raise several important issues including the impact on cancer surgery, the treatments of hematologic malignancies and lung cancer, delays in cancer diagnosis and treatment due to refrained clinical visits, and the insufficient time to share among physicians, patients, and their families.

We believe that this special session will give us some solutions to deliver the same quality of cancer care during the COVID-19 pandemic as pre-pandemic.

**SP6-1 Cancer surgery during COVID-19 pandemic in Japan**

Ken Shirabe<sup>1,2</sup>, Yuko Kitagawa<sup>2</sup>, Hiroshi Saeki<sup>1</sup>, Hiroshi Koyama<sup>3</sup>  
 ('Dept. General Surg. Sci., Gunma Univ., <sup>2</sup>Japanese Society of Gastrointestinal Surg., <sup>3</sup>Dept. Public Health, Gunma Univ.)

COVID-19 流行下におけるがんの外科診療のこれまでとこれから  
 調 繁<sup>1,2,3</sup>、北川 雄光<sup>2</sup>、佐伯 浩司<sup>1</sup>、小山 洋<sup>3</sup>（群馬大・総合外科学講座、<sup>2</sup>日本消化器外科学会、<sup>3</sup>群馬大・公衆衛生学講座）

**SP6-2 Impact of COVID-19 on patient care for hematologic malignancy**

Taiji Koyama (Dept. Med. Oncology/Hematology, Kobe Univ. Hosp.)

COVID-19 が血液腫瘍患者に与える影響

小山 泰司（神戸大・医附属病院・腫瘍・血液内科）

**SP6-3 Concerns and burdens of cancer patients and families in the COVID-19 pandemic: what can we do? and what should we do?**

Tomoko Takayama, Masayo Sakurai, Ayako Ishikawa (Ctr. for Cancer Control & Information Services, Natl. Cancer Ctr.)

コロナ禍におけるがん患者さんの苦悩とその対応

高山 智子、櫻井 雅代、石川 文子（国立がん研セ・がん対策情報セ）

**SP6-4 Cancer care delivery during COVID-19 pandemic; Impact of COVID-19 on cancer management: Examination and medical therapy**

Kohei Fujita<sup>1</sup>, Takuma Imakita<sup>1</sup>, Yuki Yamamoto<sup>1,2</sup>, Osamu Kanai<sup>1</sup>, Misato Okamura<sup>1</sup>, Koichi Nakatani<sup>1</sup>, Tadashi Mio<sup>1</sup> ('Respiratory Med., NHO Kyoto Med. Ctr., <sup>2</sup>Dept. Drug Discovery for Lung Diseases, Kyoto Univ.)

COVID-19 パンデミック下の癌診療：COVID-19 パンデミックが癌の検査と治療に与えた影響

藤田 浩平<sup>1</sup>、今北 卓間<sup>1</sup>、山本 祐樹<sup>1,2</sup>、金井 修<sup>1</sup>、岡村 美里<sup>1</sup>、中谷 光一<sup>1</sup>、三尾 直士<sup>1</sup>（NHO 京都医療センター 呼吸器内科、<sup>2</sup>京都大・呼吸器疾患創薬講座）

**SP6-5 Genitourinary cancer care delivery during COVID-19 pandemic**

Masatoshi Eto (Dept. Urology, Grad. Sch. Med. Sci., Kyushu Univ.)

COVID-19 流行下における泌尿器がんのマネージメント

江藤 正俊（九州大・医・泌尿器科）

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## Luncheon Seminars

### Room 2

**LS-26 Janssen Pharmaceutical K.K.**  
ヤンセンファーマ株式会社

#### The fist-in-class anti-CD38 antibody daratumumab made a paradigm shift in the therapeutic landscape of multiple myeloma

Yusuke Furukawa (Division of Stem Cell Regulation, Center for Molecular Medicine, Jichi Medical University)

Chair: Koichi Akashi (Department of Medicine and Biosystemic Science, Graduate School of Medical Science, Kyushu University)

#### 抗 CD38 抗体 daratumumab による多発性骨髄腫治療のパラダイム・シフト

古川 雄祐 (自治医科大学 分子病態治療研究センター 幹細胞制御研究部)

座長：赤司 浩一（九州大学大学院医学研究院 病態修復内科学（第一内科））

### Room 5

**LS-29 10x Genomics Inc. / SCRUM Inc.**  
10x Genomics Inc./株式会社スクラム

#### T cell clonal evolution in the tumor microenvironment elucidated by single-cell sequencing

Yosuke Togashi (Department of Tumor Microenvironment, Okayama University, Graduate School of Medicine Dentistry and Pharmaceutical Sciences)

Chair: Yutaka Suzuki (Laboratory of Systems Genomics, Department of Computational Biology and Medical Sciences, Graduate School of Frontier Sciences, The University of Tokyo)

#### シングルセルシークエンスで紐解く腫瘍微小環境のT細胞のクローニング進化

富樫 康介 (岡山大学学術研究院 医歯薬学域腫瘍微小環境学分野)

座長：鈴木 稔（東京大学大学院新領域創成科学研究科  
メディカル情報生命専攻生命システム観測分野）

### Room 3

**LS-27 Merck Biopharma Co., Ltd.**  
メリクバイオファーマ株式会社

#### Future Diagnostics for Precision Cancer Medicine; Genome x Pathology x AI = ?

Hiroshi Nishihara (Genomics Unit, Keio Cancer Center, Keio University School of Medicine)

Chair: Junji Tsurutani (Advanced Cancer Translational research institute, Showa University)

#### 新世代のがん診断学：ゲノム x 病理 x AI = ?

西原 広史 (慶應義塾大学医学部 腫瘍センター ゲノム医療ユニット)

座長：鶴谷 純司（昭和大学 先端がん治療研究所）

### Room 7

**LS-30 Janssen Pharmaceutical K.K. /NIPPON SHINYAKU CO., LTD.**  
ヤンセンファーマ株式会社/日本新薬株式会社

#### 1) Update on the treatment of metastatic prostate cancer based on mechanisms of therapeutic resistance

#### 2) Role of androgen receptor axis-targeted (ARAT) agents in diversifying prostate cancer treatments

1) Daisuke Obinata (Nihon University School of Medicine, Department of Urology)

2) Kohei Hashimoto (Sapporo Medical University School of Medicine, Department of urology)

Chair: Kazutaka Saito (Dokkyo Medical University Saitama Medical Center)

#### 1) 治療抵抗性メカニズムから見た転移性前立腺癌治療 Update

#### 2) 多様化する前立腺癌治療における新規アンドロゲン受容体シグナル阻害薬の役割

1) 大日方 大亮（日本大学医学部 泌尿器科学系泌尿器科学分野）

2) 橋本 浩平（札幌医科大学医学部 泌尿器科学講座）

座長：齋藤 一隆（獨協医科大学埼玉医療センター 泌尿器科）

### Room 4

**LS-28 MSD K. K.**  
MSD 株式会社

#### Recent advances in translational research for immune checkpoint inhibitors

Shohei Koyama (Division of Cancer Immunology, Research Institute/Exploratory Oncology Research & Clinical Trial Center (EPOC), National Cancer Center/Department of Respiratory Medicine and Clinical Immunology, Osaka University Graduate School of Medicine)

Chair: Seiji Yano (Division of Medical Oncology, Cancer Research Institute, Kanazawa University)

#### 免疫チェックポイント阻害薬治療に関する最近の研究

小山 正平（国立がん研究センター 先端医療開発センター 免疫TR分野/大阪大学大学院医学系研究科 呼吸器・免疫内科学）

座長：矢野 聖二（金沢大学 がん進展制御研究所 腫瘍内科）

### Room 8

**LS-31 Merck Biopharma Co., Ltd. / Pfizer Japan Inc.**  
メリクバイオファーマ株式会社/ファイザー株式会社

#### Cancer Immunotherapy in Urological Tumors

Shigehisa Kitano (Division of Cancer Immunotherapy Development Advanced Medical Development Center, The Cancer Institute Hospital of JFCR)

Chair: Hideaki Miyake (Department of Urology, Hamamatsu University School of Medicine)

#### 泌尿器腫瘍におけるがん免疫療法の考察

北野 滋久（がん研究会明病院 先端医療開発センター がん免疫治療開発部）

座長：三宅 秀明（浜松医科大学医学部 泌尿器科学講座）

## Room 9

LS-32

CANON MEDICAL SYSTEMS CORPORATION.  
キヤノンメディカルシステムズ株式会社

- 1) New initiatives for genomic medicine at Kyoto University Hospital  
 2) Leveraging RWD can shift the future of cancer care.

- 1) Masashi Kanai (Department of Therapeutic Oncology, Graduate School of Medicine, Kyoto University, New initiatives for genomic medicine at Kyoto University Hospital)  
 2) Shigemi Matsumoto (Department of Real World Data R & D, Graduate School of Medicine, Kyoto University)

Chair: Manabu Muto (Department of Therapeutic Oncology, Graduate School of Medicine, Kyoto University)

- 1) 京大病院におけるゲノム医療への新たな取り組み  
 2) RWD が変えるがん医療の未来  
 1) 金井 雅史 (京都大学大学院医学研究科 脳腫瘍薬物治療学講座)  
 2) 松本 繁巳 (京都大学大学院医学研究科 リアルワールドデータ研究開発講座)

座長：武藤 学 (京都大学大学院医学研究科 脳腫瘍薬物治療学講座)

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## Room 11

LS-33

AS ONE Corporation.  
アズワン株式会社

Introducing new spatial analysis technology: Quantitative image analysis by image-cytometry, and gene/protein-based hyperplex spatial profiling by index oligo-labeled probe.

Takashi Matsui (AS ONE Corporation)

Chair: Naoto Momoda (AS ONE Corporation)

新しい空間解析技術のご紹介：イメージサイトメトリーによる画像定量解析とインデックスオリゴ標識プローブによる遺伝子およびタンパク質ベースのハイブレックス空間プロファイリング  
 松井 隆 (アズワン株式会社)

座長：百田 直人 (アズワン株式会社)

## Special Programs

Room 1	Oct. 2 (Sat.) 15:00-17:00	J
<b>SP8</b>	<b>Evolution of Whole Genome Sequencing Project from Cancer Genomic Medicine (Joint symposium with Japan Society of Clinical Oncology and Japan Society of Medical Oncology) がんゲノム医療から全ゲノム解析への展開（日本癌治療学会・日本臨床腫瘍学会とのジョイントシンポジウム）</b>	
	Chairpersons: Hiroyuki Mano (Natl. Cancer Ctr.) Yuichiro Doki (Osaka Univ., Gastroenterological Surg.) Kenji Tamura (Dept. Med. Oncology, Shimane Univ. Hosp.) 座長：間野 博行（国立がん研セ） 土岐 祐一郎（大阪大・消化器外科） 田村 研治（島根大・医附属病院、腫瘍内科）	
	Since June 2019, Japan has started its unique program for cancer genomic medicine (CGM) under the national health insurance system. Cancer gene panel tests have been reimbursed among the qualified CGM hospitals, and the genomic and clinical information of patients who receive the gene panel tests are stored into Center for Cancer Genomics and Advanced Therapeutics (C-CAT). Such information of >18,000 individuals have already been collected to C-CAT, and several platforms for utilization of the C-CAT data are being developed to share such information among the CGM hospitals and, further, among academia and industries. While CGM with cancer gene panel tests is one of the most efficient systems to deliver “the right drugs to the right patients”, only a fraction of cancer patients may benefit from such system due to the insufficient number of effective anti-cancer drugs. Whole genome sequencing (WGS) of cancer specimens may be a feasible approach to discover novel targets for cancer treatments, and the large-scale WGS projects have been raised in the Innovative Cancer Medical Practice Research Project by The Japan Agency for Medical Research and Development. In this symposium, we will discuss the current status as well as the future plan of the Japanese CGM platform, and envision how such platform may incorporate WGS technologies.	
<b>SP8-1</b>	<b>The current status of precision oncology in Japan</b> <u>Kuniko Sunami</u> (Dept. Lab. Med., Natl. Cancer Ctr. Hosp.) ゲノム医療の現状と課題 角南 久仁子（国立がん研セ・中央病院・臨床検査科）	
<b>SP8-2</b>	<b>Near Future Forecast of Precision Oncology using Liquid Biopsy Technology</b> <u>Takayuki Yoshino</u> (Dept. Gastrointestinal Oncology, Natl. Cancer Ctr. Hosp. East) リキッドバイオプシーを用いたがんゲノム医療の新展開 吉野 孝之（国立がん研セ・東病院・消化管内科）	
<b>SP8-3</b>	<b>The Government will steadily promote the Action Plan for Whole Genome Analysis under the principle of patient-first and return-to patient to provide patients who suffer illness</b> <u>Takashi Ichimura</u> (Health Service Bureau, Cancer and Disease Control Div., MHLW) 全ゲノム解析等のさらなる推進について －患者に新たな医療を届けることを目指して－ 市村 崇（厚生労働省・健康局・がん・疾病対策課）	
<b>SP8-4</b>	<b>Utilization of cancer whole genome data</b> <u>Hiroyuki Aburatani</u> (Genome Science & Medicine, RCAST, Tokyo Univ.) がん全ゲノム解析データの利活用 油谷 浩幸（東京大・先端研・ゲノムサイエンス）	
<b>SP8-5</b>	<b>Digestive organ CAncer Whole Genome project (DCAWG)</b> <u>Tatsuhiro Shibata</u> <sup>1,2</sup> ( <sup>1</sup> Lab. Mol. Med., IMSUT, <sup>2</sup> Div. Cancer Genomics., Natl. Cancer Centr. Res. Inst.) 消化器がんにおける全ゲノム解析 柴田 龍弘 <sup>1,2</sup> （東京大・医科研・ゲノム医科学分野、 <sup>2</sup> 国立がん研セ・研・がんゲノミクス）	
<b>SP8-6</b>	<b>Construction of real world evidence based on genomic and clinical data of C-CAT</b> <u>Takashi Kohno</u> <sup>1,2</sup> ( <sup>1</sup> C-CAT, Natl. Cancer Ctr., <sup>2</sup> Div. Genome Biol, Natl. Cancer Ctr. Res. Inst.) C-CAT 集約データを用いたリアルワールドエビデンスの構築に向けて 河野 隆志 <sup>1,2</sup> （ <sup>1</sup> 国立がん研セ・C-CAT・情報利活用、 <sup>2</sup> 国立がん研セ・研・ゲノム生物）	
Room 2	Oct. 2 (Sat.) 13:30-16:00	E
<b>S20</b>	<b>Drug discovery and diagnosis enhanced with AI</b> AIによる創薬・診断の強化	
	Chairpersons: Satoru Miyano (M&D Data Sci. Ctr., Tokyo Med. Dent. Univ.) Masahiro Jinzaki (Dept. Radiology, Keio Univ. Sch. of Med.) 座長：宮野 悟（東京医歯大・M&D データ科学セ） 陣崎 雅弘（慶應大・医・放射線科学）	
	In the history of Artificial Intelligence since 1950's, there have been many challenges in the medical area. Around 2012, Google has inspired new challenges in this area by its innovative technology called “deep learning.” This technology itself was a result of simple elevation of neural network methodology enhanced by not expensive GPU machines. Google's success derived from its platform for collecting a huge amount of data and information such as images, voices, knowledge through its service. Currently, deep learning is considered as a common technology which shall change the strategies for innovations, including the medical area. While some criticisms have been indicated such as “black box of deep learning” and “precision of learning data”, vigorous challenges to resolve this drawback are rapidly going. The cancer area is one of areas of the highest expectations, in particular, diagnosis and drug discovery. This symposium invited researchers who are actively involved with the applications for these targets. Further, new directions of AI for biomedical researches and practices are presented.	
<b>S20-1</b>	<b>Data-driven drug discovery by AI</b> <u>Yoshihiro Yamashita</u> (Dept. Biosci. Bioinf., Fac. Comp. Sci. Syst., Kyushu Inst. Tech.) AIによるデータ駆動型研究が拓く創薬 山西 芳裕（九州工大・情工・生命化学）	
<b>S20-2</b>	<b>Computer-aided diagnosis in post-deep learning era</b> <u>Akinobu Shimizu</u> (Inst. of Engineering, Tokyo Univ. of Agriculture & Tech.) ポスト深層学習時代のコンピュータ支援診断 清水 昭伸（東京農工大・院・工学研究院）	
<b>S20-3</b>	<b>AI Imaging and AI-aided Diagnosis for Cancer Detection and Diagnosis</b> <u>Kenji Suzuki</u> (Inst. of Innovative Res., Tokyo Inst. of Tech.) 「癌検出・診断のためのAIイメージングとAI支援診断」 鈴木 賢治（東京工業大・科学技術創成研究院）	
<b>S20-4</b>	<b>Development of AI-powered medical devices for clinical applications</b> <u>Ryuji Hamamoto</u> <sup>1,2</sup> ( <sup>1</sup> Div. Med. AI Res. Dev., Natl. Cancer Ctr. Res. Inst., <sup>2</sup> Cancer Transl. Res. Team, RIKEN Ctr. for AIP project) 臨床応用を志向したAI搭載医療機器の開発 浜本 隆二 <sup>1,2</sup> （ <sup>1</sup> 国立がん研セ・研・医療AI研究開発分野、 <sup>2</sup> 理研・革新知能統合研究セ・がん探索医療）	
<b>S20-5</b>	<b>Network approaches to drug target/resistance with supercomputers</b> <u>Satoru Miyano</u> (M&D Data Sci. Ctr., Tokyo Med. Dent. Univ.) スーパーコンピュータを用いた薬剤標的・耐性探索のためのネットワークアプローチ 宮野 悟（東京医歯大・M&D データ科学セ）	

**Symposia on Specific Tumors**

Room 3 Oct. 2 (Sat.) 13:30-16:00

J

**SST6 Hereditary cancer**

遺伝性がん

Chairpersons: Seigo Nakamura (Div. Breast Surg. Oncology, Dept. Surg., Showa Univ. Sch. of Med.)

Akira Hirasawa (Dept. Clin. Genomic Med., Grad. Sch. of Med., Dent. & Pharm. Sci., Okayama Univ.)

座長：中村 清吾（昭和大・医・外科学講座・乳腺外科学部門）  
平沢 晃（岡山大・院医歯薬・病態制御科学専攻 脳癆制御学講座（臨床遺伝子医療学分野））

Pedigrees of hereditary tumors has been identified through cancer medicine has increased recently. *BRCA1* and *BRCA2* genetic testing was approved as a companion diagnostic in 2018 and genetic testing, surveillance, risk-reductive surgery, and prevention for hereditary breast cancer and ovarian cancer syndrome (HBOC) was partly covered by Japanese national health insurance in 2020. Furthermore, comprehensive genomic profiling testing was approved in 2019 and whole genome and whole exome analysis has been in progress as a national strategy. These processes can be revealed hereditary cancer pedigrees. This session will discuss current issues for hereditary tumor and cancer precision medicine.

**SST6-1 Genetic susceptibility to cancer - pursuing the genetic traits in the clinic of cancer genetics**

Kokichi Sugano<sup>1,2</sup>, Yuichi Shiraishi<sup>3</sup>, Makoto Hirata<sup>2</sup>, Teruhiko Yoshida<sup>2</sup>  
(<sup>1</sup>Dept. Genet. Med., Sasaki Foundation Kyoundo Hosp., <sup>2</sup>Dept. Genetic Med. & Services, Natl. Cancer Ctr. Hosp., <sup>3</sup>Div. Genome Analysis Platform Development, Natl. Cancer Ctr.)

癌の遺伝的易罹患性・遺伝カウンセリング外来で行われる遺伝的形質の探究

菅野 康吉<sup>1,2</sup>、白石 友一<sup>3</sup>、平田 真<sup>2</sup>、吉田 輝彦<sup>2</sup>（<sup>1</sup>佐々木研・杏雲堂病院・遺伝子診療科、<sup>2</sup>国立がん研セ・中央病院・遺伝子診療部門、<sup>3</sup>国立がん研セ・研・ゲノム解析基盤開発）

**SST6-2 Trends in clinical introduction of multi-gene panel testing (MGPT) in hereditary cancer diagnosis**

Reiko Yoshida (Showa Univ. Advanced Cancer Translational Res. Inst.)

遺伝性腫瘍診断における多遺伝子パネル検査(Multi-gene panel testing: MGPT)の臨床導入に関する動向

吉田 玲子（昭和大・先端がん治療研）

**SST6-3 Interpretation of variants and challenges of multigene panel testing in the diagnosis of hereditary tumor syndromes**

Issei Imoto<sup>1,2</sup> (<sup>1</sup>Aichi Cancer Ctr. Res. Inst., <sup>2</sup>Risk Assessment Ctr., Aichi Cancer Ctr. Hosp.)

遺伝性腫瘍症候群診断における多遺伝子パネル検査のバリエントの解釈と課題

井本 逸勢<sup>1,2</sup>（愛知県がんセ・研、<sup>2</sup>愛知県がんセ・リスク評価セ）

**SST6-4 Hereditary cancers as therapeutic targets revealed through tumor profiling**

Arisa Ueki<sup>1,2</sup> (<sup>1</sup>Clin. Genetic Oncol., JFCR, Cancer Inst. Hosp., <sup>2</sup>Ctr. for Med. Genetics, Keio Univ. Hosp.)

がんゲノム検査と治療標的としての遺伝性腫瘍

植木 有紗<sup>1,2</sup>（<sup>1</sup>（公財）がん研・有明病院・臨床遺伝医療部、<sup>2</sup>慶應大・病院・臨床遺伝学セ）

**SST6-5 Current issues in the management of genetic information in medical records.**

Yusaku Urakawa<sup>1,2</sup>, Mashu Futagawa<sup>1,3</sup>, Reimi Sogawa<sup>3</sup>, Fumino Kato<sup>3</sup>, Sayaka Ueno<sup>1,4</sup>, Mariko Kochi<sup>3</sup>, Hideki Yamamoto<sup>1,3</sup>, Akira Hirasawa<sup>1,3</sup>  
(<sup>1</sup>Dept. Clin. Genomic Med., Grad. Sch., Okayama Univ., <sup>2</sup>Dept. Med. Oncology, Kobe City Med. Ctr. General Hosp., <sup>3</sup>Dept. Clin. Genomic Med., Okayama Univ. Hosp., <sup>4</sup>Section. Translational Res., Hyogo Cancer Ctr.)

遺伝情報の診療録の取り扱いに関する課題

浦川 優作<sup>1,2</sup>、二川 摩周<sup>1,3</sup>、十川 麗美<sup>3</sup>、加藤 芙美乃<sup>3</sup>、植野 さやか<sup>1,4</sup>、河内 麻里子<sup>3</sup>、山本 英喜<sup>1,3</sup>、平沢 晃<sup>1,3</sup>（<sup>1</sup>岡山大・院医歯薬・臨床遺伝子医療学、<sup>2</sup>神戸市立医療セ・中央市民病院・腫瘍内科、<sup>3</sup>岡山大・病院・臨床遺伝子診療科、<sup>4</sup>兵庫県がんセ・研究部）

**SST6-6 Genetic and clinical features of Lynch syndrome in Japan; Dial Study**

Kiwanu Akagi<sup>1</sup>, Tatsuro Yamaguchi<sup>2</sup>, Takao Hino<sup>3</sup>, Kohji Tanakaya<sup>4</sup>, Takeshi Nagasaka<sup>1,2</sup>, Sana Yokoi<sup>5</sup>, Kazuyuki Matsushita<sup>6</sup>, Yasuyuki Miyakura<sup>7</sup>, Masaaki Kawai<sup>8</sup>, Hiroki Tanabe<sup>9</sup>, Yoshiko Arai<sup>1</sup>, Gou Yamamoto<sup>1</sup>, Tadashi Nomizu<sup>13</sup>, Naohiro Tomita<sup>10</sup>, Daisuke Aoki<sup>11</sup>, Hideyuki Ishida<sup>12</sup> (Saitama Cancer Ctr. Dept. Mol. Diagn. Cancer Prev., <sup>2</sup>Tokyo Metropolitan Cancer & Infectious Diseases Ctr. Dept. Surg., <sup>3</sup>Hiroshima Univ. Hosp. Dept. Clin. & Mol. Genetics, <sup>4</sup>Natl. Hosp. Organization Iwakuni Clin. Ctr. Dept. Surg., <sup>5</sup>Chiba Cancer Ctr. Res. Inst., <sup>6</sup>Chiba Univ. Hosp. Div. Lab. Med., <sup>7</sup>Saitama Med. Ctr., Jichi Med. Univ. Dept. Surg., <sup>8</sup>Yamagata Univ. First Dept. Surg., <sup>9</sup>Asahikawa Med. Univ. Dept. Med., <sup>10</sup>Hyogo College of Med. Dept. Surg., <sup>11</sup>Keio Univ. Sch. of Med. Dept. Obstetrics & Gynecol., <sup>12</sup>Kawasaki Med. Sch. Dept. Clin. Oncology, <sup>13</sup>Degl. Surg., Hoshi General Hosp.)

日本におけるリンチ症候群の遺伝学的・臨床的特徴

赤木 究<sup>1</sup>、山口 達郎<sup>2</sup>、檜井 孝夫<sup>3</sup>、田中屋 宏爾 宏爾<sup>4</sup>、永坂 岳司<sup>12</sup>、横井 左奈<sup>5</sup>、松下 一之<sup>6</sup>、宮倉 安幸<sup>7</sup>、河合 賢郎<sup>8</sup>、田邊 裕貴<sup>9</sup>、新井 吉子<sup>1</sup>、山本 剛<sup>1</sup>、野水 整<sup>13</sup>、富田 尚裕<sup>10</sup>、青木 大輔<sup>11</sup>、石田 秀行<sup>12</sup>（埼玉県がんセ・腫瘍診断・予防科、<sup>2</sup>がん・感染症セ・東京都立駒込病院、<sup>3</sup>広島大・病院・遺伝子診療部、<sup>4</sup>国立病院機構岩国医療セ・外科、<sup>5</sup>千葉県がんセ・遺伝子診断部、<sup>6</sup>千葉大・医附属病院・検査部、<sup>7</sup>自治医大・さいたま医療セ・一般消化器外科、<sup>8</sup>山形大・院医・外科学第一講座、<sup>9</sup>旭川医大・第3内科、<sup>10</sup>市立豊中病院・がん診療部、<sup>11</sup>慶應大・医・産婦人科、<sup>12</sup>川崎医大・臨床腫瘍教室、<sup>13</sup>星総合病院・外科）

**SST6-7 Characteristics of Li-Fraumeni Syndrome in Japan; A Review Study by the Special Committee of the JSHT**

Michinori Funato<sup>1</sup>, Yukiko Tsunematsu<sup>2</sup>, Fumito Yamazaki<sup>3</sup>, Chieko Tamura<sup>4</sup>, Tadashi Kumamoto<sup>5</sup>, Masatoshi Takagi<sup>6</sup>, Shunsuke Kato<sup>7</sup>, Haruhiko Sugimura<sup>8</sup>, Kazuo Tamura<sup>9,10</sup> (<sup>1</sup>Dept. Pediatrics, NHO, Nagara Med. Ctr., <sup>2</sup>Dept. Pediatrics, Juntendo Univ. Sch. of Med., <sup>3</sup>Dept. Pediatrics, Keio Univ., <sup>4</sup>Med. Information & Genetic Counseling Div., FMC Tokyo Clinic, <sup>5</sup>Dept. Pediatric Oncology, Natl. Cancer Ctr. Hosp., <sup>6</sup>Dept. Pediatrics & Developmental Biol, Tokyo Med. Dent. Univ., <sup>7</sup>Dept. Clin. Oncology, Juntendo Univ. Grad. Sch. of Med., <sup>8</sup>Dept. Tumor Path., Hamamatsu Univ. Sch. of Med., <sup>9</sup>Genetic Med. Ctr., Sakurabashi Watanabe Hosp., <sup>10</sup>Grad. Sch. of Sci. & Engineering Res., Kindai Univ.)

日本のLi-Fraumeni症候群の特徴—LFS部会によるレビュー研究

船戸 道徳<sup>1</sup>、恒松 由記子<sup>2</sup>、山崎 文登<sup>3</sup>、田村 智英子<sup>4</sup>、熊本 忠史<sup>5</sup>、高木 正穏<sup>6</sup>、加藤 俊介<sup>7</sup>、樋村 春彦<sup>8</sup>、田村 和朗<sup>9,10</sup>（<sup>1</sup>国立病院機構長良医療セ・小児科、<sup>2</sup>順天堂大・医・小児科、<sup>3</sup>慶應大・医・小児科、<sup>4</sup>FMC 東京クリニック、<sup>5</sup>国立がん研セ・中央病院・小児腫瘍科、<sup>6</sup>東京医歯大・院・発生発達病態学、<sup>7</sup>順天堂大・院医・臨床腫瘍学、<sup>8</sup>浜松医大・腫瘍病理学、<sup>9</sup>桜橋渡辺病院遺伝子診療セ、<sup>10</sup>近畿大・院総合理工学研究科）

## International Sessions

Room 4	Oct. 2 (Sat.) 13:30-16:00	E
IS11	Single-cell analysis in cancer research がん研究における一細胞解析	E
Chairpersons: Shinichi Yachida (Dept. Cancer Genome Informatics, Grad. Sch. of Med., Osaka Univ.) Woong-Yang Park (Samsung Genome Inst., Samsung Med. Ctr., Sungkyunkwan Univ.) 座長：谷内田 真一（大阪大・院医・医学専攻ゲノム生物学講座 ガンゲノム情報学） Woong-Yang Park (Samsung Genome Inst., Samsung Med. Ctr., Sungkyunkwan Univ.)	Advancement in genome analysis techniques enabled us to understand the biology of cancer at single cell level. Tumor tissues consist of many cell types to maintain the characteristics of cancer. Molecular features of each cell type could provide the cellular landscape of human cancers. Through the marked progress in technique development for single cell genome analysis, we can challenge to discover cell subtypes, regulon and intercellular interaction in human cancers. In this session, we will cover spatial transcriptomics techniques that can visualize the cell type distribution, co-localization, and cellular crosstalk in breast and lung cancers. Tumor microenvironment plays an important role in immunotherapy and metastasis. In particular, we will discuss the immune microenvironment of colorectal cancer to propose new therapeutic approaches. In hepatocellular carcinoma, tumor microenvironment cells undergo epigenetic changes leading to the de-differentiation into embryonic states. We will also discuss the molecular and cellular alterations with cigarette smoking in lung cancer and chronic obstructive pulmonary disease. Single cell analysis techniques provide us insights on cancer research as well as new therapeutic strategies.	Knowledge of the cancer genome has experienced rapid growth over the past decade. Genome-wide association studies (GWAS) and sequencing studies have identified dozens of genetic variants and somatic mutations implicated in the development of cancer. In oncology, GWAS of nearly all common malignancies have been performed. The clinical application of GWAS is starting to provide opportunities for cancer prevention and repositioning as well as for drug discovery. Thereafter, research in oncology has progressively focused on the next sequencing studies (NGS) of cancer genomes. NGS has impacted cancer research by allowing the systematic analysis of entire genomes, thereby facilitating the discovery of somatic and germline mutations, and identification of the insertions, deletions, and structural rearrangements, including translocations and inversions, in novel disease genes. In this session, several specialists are invited to discuss the implications of GWAS and NGS in cancer, and share their recent progress of genomic research.
IS11-1	Tumor microenvironment of metastatic colorectal cancer WoongYang Park, Yourae Hong (Samsung Genome Inst., Samsung Med. Ctr., Sungkyunkwan Univ.)	IS12-1 Whole-genome landscape of adult T-cell leukemia/lymphoma Keisuke Kataoka <sup>1,2</sup> (Div. Hematol., Dept. Med., Keio. Univ. Sch. Med., <sup>2</sup> Div. Molecul. Oncol., Natl. Cancer Ctr. Res. Inst.) 成人T細胞白血病リンパ腫におけるゲノム異常の全体像 片岡 圭亮 <sup>1,2</sup> （慶應大・医・血液、 <sup>2</sup> 国立がん研セ・研・分子腫瘍学）
IS11-2	Single Cell and Spatial Transcriptome Analyses Reveals Heterogeneity of Cancers Yutaka Suzuki (Grad. Sch. Frontier Sci., UTokyo) シングルセルおよび空間トランスクリプトーム解析によるがん多様性の解析 鈴木 穣（東京大・新領域）	IS12-2 Detection of novel mutations using bulk sequencing data Suzuki Hiromichi (Brain Tumor Translational Res., Natl. Cancer Ctr. Res. Inst.) バルクシークエンスデータを用いた 新規遺伝子変異の同定 鈴木 啓道（国立がん研セ・脳腫瘍連携研究分野）
IS11-3	Dissecting the mechanisms of tumor immunity in colorectal cancer by single-cell analyses Lei Zhang <sup>1,2</sup> , Ziyi Li <sup>3</sup> , Liangtao Zheng <sup>3</sup> , Yuanyuan Zhang <sup>3</sup> , Zemin Zhang <sup>3</sup> ( <sup>1</sup> Inst. of Cancer Res., Shenzhen Bay Lab., <sup>2</sup> Shenzhen Grad. Sch., Peking Univ., <sup>3</sup> BIOPIIC, Peking Univ.)	IS12-3 Genetic and clinical characteristics in myeloid neoplasms with DDX41 mutations. Hideki Makishima <sup>1</sup> , Yasuhito Nannya <sup>1</sup> , Yukihide Momozawa <sup>2</sup> , June Takeda <sup>1</sup> , Yasushi Miyazaki <sup>3</sup> , Hisashi Tsurumi <sup>4</sup> , Senji Kasahara <sup>5</sup> , Akifumi Takaori <sup>6</sup> , Kazuma Ohyashiki <sup>7</sup> , Eva Lindberg <sup>8</sup> , Luca Malcovati <sup>9</sup> , Torsten Haferlach <sup>10</sup> , Jaroslaw Maciejewski <sup>11</sup> , Yoichiro Kamatani <sup>2</sup> , Satoru Miyano <sup>12</sup> , Seishi Ogawa <sup>1,8</sup> ( <sup>1</sup> Path. & Tumor Biol., Kyoto Univ., <sup>2</sup> Ctr. for Integrative Med. Sci., RIKEN, <sup>3</sup> Dept. Hematology, Atomic Bomb Disease Inst., Nagasaki Univ., <sup>4</sup> Dept. Hematology, Gifu Univ., <sup>5</sup> Dept. Hematology, Gifu Municipal Hosp., <sup>6</sup> Dept. Hematology, Kyoto Univ., <sup>7</sup> Dept. Hematology, Tokyo Med. Univ., <sup>8</sup> Karolinska Inst., Karolinska Univ. Hosp., <sup>9</sup> Dept. Mol. Med., Univ. of Pavia, <sup>10</sup> MLL, Munich Leukemia Lab., <sup>11</sup> Taussig Cancer Inst., Cleveland Clinic, <sup>12</sup> Data Sci. Ctr., Tokyo Med. & Dent. Univ.) DDX41 変異陽性骨髓腫瘍の遺伝学的臨床的特徴 牧島 秀樹 <sup>1</sup> 、南谷 泰仁 <sup>1</sup> 、桃沢 幸秀 <sup>2</sup> 、竹田 淳惠 <sup>1</sup> 、宮崎 泰司 <sup>3</sup> 、鶴見 寿 <sup>4</sup> 、笠原 千嗣 <sup>5</sup> 、高折 晃史 <sup>6</sup> 、大屋敷 一馬 <sup>7</sup> 、Eva Lindberg <sup>8</sup> 、Luca Malcovati <sup>9</sup> 、Torsten Haferlach <sup>10</sup> 、Jaroslaw Maciejewski <sup>11</sup> 、鎌谷 洋一郎 <sup>2</sup> 、宮野 悟 <sup>12</sup> 、小川 誠司 <sup>1,8</sup> （京都大・腫瘍生物学講座・ <sup>2</sup> 理研、 <sup>3</sup> 長崎大・血液内科、 <sup>4</sup> 岐阜大・血液内科、 <sup>5</sup> 岐阜市民病院・血液内科、 <sup>6</sup> 京都大・血液内科、 <sup>7</sup> 東京医大・血液内科、 <sup>8</sup> カロリンスカ大、 <sup>9</sup> パビア大、 <sup>10</sup> ミュンヘン白血病研、 <sup>11</sup> クリーブランドクリニック、 <sup>12</sup> 東京医大）
IS11-4	Tissue homeostasis of stomach cancer revealed by single cell analysis Shumpei Ishikawa (Dept. Prev.Med. Univ. of Tokyo) シングルセル解析により明らかになる胃癌組織のホメオスタシス 石川 俊平（東京大学・医・衛生）	IS12-4 Identification and Validation of Immunogenic Cancer Neoantigens Jungkyoon Choi (Dept. Biomed. Engineering, KAIST)
IS11-5	Oncofetal Ecosystem: Embryonic Tale of Tumorigenesis Ankur Sharma <sup>1,2,3</sup> ( <sup>1</sup> Harry Perkins Inst. of Med. Res., <sup>2</sup> Curtin Med. Sch., Curtin Univ., <sup>3</sup> IMCB, A*STAR, Singapore)	IS12-5 LINC00842 inactivates transcription co-regulator PGC-1α to promote PDAC malignancy through metabolic remodelling Jian Zheng, Xudong Huang, Ling Pan, Dongxin Lin (Dept. Exp. Res., SYSUCC)
IS11-6	Single Cell Meta-analysis of Cigarette Smoking Lung Atlas Jun Nakayama <sup>1,2</sup> , Yusuke Yamamoto <sup>1</sup> ( <sup>1</sup> Div. Cell. Signaling, Natl. Cancer Ctr. Res. Inst., <sup>2</sup> JSPS) Cigarette Smoking Lung Atlas の 1 細胞メタ解析 中山淳 <sup>1,2</sup> 、山本 雄介 <sup>1</sup> （国立がん研セ・研・細胞情報学、 <sup>2</sup> 日本学術振興会）	IS12-6 Human genome epidemiology of lung cancer and its potential application in screening and precision prevention Hongbing Shen (Nanjing Med. Univ.)

**Symposia**

Room 6 Oct. 2 (Sat.) 13:30-16:00

**S21****Next-generation imaging tools pioneered by light**

光が拓く次世代イメージングツール

Chairpersons: Shinae Kondoh (Sch. of Life Sci. & Tech., Tokyo Inst. of Tech.)  
 Yasuteru Urano (Grad. Sch. Med., Univ. Tokyo/ Grad. Sch. Pharm. Sci., Univ. Tokyo)

座長：近藤 科江（東京工業大・生命理工学院）  
 浦野 泰照（東京大・院医/東京大・院薬）

Cancer is an unavoidable disease in humans who have achieved longevity, and prevention of its onset is currently limited. However, it is a clear fact that early detection and early treatment can reduce the mortality rate from cancer, and the development of technology for diagnosing cancer with high sensitivity is extremely important. It has also been shown that systemic cancer can be treated by activating the patient's immunity. Furthermore, by elucidating the precise mechanism of metastasis that threatens survival, it may be possible to develop treatment strategies for preventing metastatic progression of cancer. In this symposium, we would like to introduce recent studies that facilitate to detect and treat cancer, activate the immune system, and elucidate the mechanism of metastasis, through technological development using light. Based on the results and information of these studies, we hope that we will be able to activate research on cancer treatments and diagnostic methods that make the best use of the potential of light, which is a safe, inexpensive, and simple modality.

**S21-1 Rapid cancer imaging by rationally designed fluorescence probes**

Yasuteru Urano<sup>1,2</sup>, Mako Kaniya<sup>1</sup>(Grad. Sch. Med., Univ. Tokyo,  
<sup>2</sup>Grad. Sch. Pharm. Sci., Univ. Tokyo)

蛍光プローブの精密設計による迅速がん検出  
 浦野 泰照<sup>1,2</sup>、神谷 真子<sup>1</sup>（東京大・院医、<sup>2</sup>東京大・院薬）

**S21-2 Cancer treatment with near-infrared photoimmunotherapy (NIR-PIT)**

Mikako Ogawa (Grad. Sch. Pharm., Hokkaido Univ.)

近赤外光によるがん治療法—光免疫療法—  
 小川 美香子（北海道大・院薬・生体分析化学）

**S21-3 In vivo fluorescent imaging technology of cancer cells by using quantum nano-sensors**

Hiroshi Yukawa (Inst. of Innovation for Future Society, Nagoya Univ.)

量子ナノセンサーによる生体内がん細胞イメージング技術の創成  
 湯川 博（名古屋大・未来社会）

**S21-4 Bioluminescence imaging of deep tissue in freely moving animals**

Satoshi Iwano (Lab. for Cell Function Dynamics, RIKEN CBS)

動物にやさしいin vivo 発光イメージング  
 岩野 智（理研・脳センタ 細胞機能探索）

**S21-5 A Fluorescent labeling system of proximal cells for single-cell omics analysis of cellular interactions in metastasis**

Misa Minegishi<sup>1</sup>, Tetsuya Kadono<sup>1</sup>, Shinae Kondoh<sup>1</sup>, Takahiro Kuchimaru<sup>2</sup> (Sch. of Life Sci. & Tech., Tokyo Tech., <sup>2</sup>Data Sci. Ctr., Jichi Med. Univ.)

転移過程における細胞間相互作用を1細胞オミクス解析する近接細胞蛍光標識技術

峯岸 美紗<sup>1</sup>、門之園 哲哉<sup>1</sup>、近藤 科江<sup>1</sup>、口丸 高弘<sup>2</sup>（東工大・生命理工、<sup>2</sup>自治医大・データサイエンスセ）

E

**English Oral Sessions**

Room 7 Oct. 2 (Sat.) 13:30-14:45

**E11-3****Characteristics of cancer cells (3)**

がん細胞の特性（3）

Chairperson: Kunishige Onuma (Dept. Clin. Bio-resource Res. & Dev. Kyoto Univ.)

座長：小沼 邦重（京都大・医・クリニカルバイオリソース研究開発）

**E11-3-1 Notch-dependent intra-tumoral heterogeneity mediates cell-fate dynamics and development of peritoneal dissemination**

Masato Yoshihara<sup>1</sup>, Mai Sugiyama<sup>2</sup>, Yoshihiro Koya<sup>3</sup>, Shohei Iyoshi<sup>1</sup>, Kazuhisa Kitami<sup>1</sup>, Kaname Uno<sup>1</sup>, Kazumasa Mogi<sup>1</sup>, Akihiro Nawa<sup>2</sup>, Hiroaki Kajiyama<sup>1</sup> (<sup>1</sup>Nagoya Univ. Gynecol., <sup>2</sup>Nagoya Univ. Bell Res. Ctr.)

卵巣癌腹膜播種巣における腫瘍内不均一性と細胞運命決定に関わるNotch シグナルの役割

吉原 雅人、杉山 麻衣<sup>2</sup>、小屋 美博<sup>2</sup>、伊吉 祥平<sup>1</sup>、北見 和久<sup>1</sup>、宇野 枝<sup>1</sup>、茂木 一将<sup>1</sup>、那波 明宏<sup>2</sup>、梶山 広明<sup>1</sup>（<sup>1</sup>名古屋大・医・産婦人科、<sup>2</sup>名古屋大・医・ペルリサーチセ）

**E11-3-2 Organoids of salivary gland cancer applicable for pre-clinical testing of genotype-oriented precision medicine**

Tomohiko Ishikawa<sup>1,2</sup>, Takenori Ogawa<sup>3</sup>, Ayako Nakanome<sup>1</sup>, Masahiro Shiihara<sup>2</sup>, Toru Furukawa<sup>2</sup> (<sup>1</sup>Tohoku Univ. Otolaryngology - Head & Neck Surg., <sup>2</sup>Tohoku Univ. Investigative Path., <sup>3</sup>Gifu Univ. Otolaryngology)

唾液腺癌オルガノイドを用いた全エクソン解析に基づく個別化医療モデル

石川 智彦<sup>1,2</sup>、小川 武則<sup>3</sup>、中目 亜矢子<sup>1</sup>、椎原 正尋<sup>2</sup>、古川 徹<sup>2</sup>（東北大・耳鼻咽喉・頭頸部外科、<sup>2</sup>東北大・病態病理学、<sup>3</sup>岐阜大・耳鼻咽喉科・頭頸部外科）

**E11-3-3 Aberrant Serine Metabolism Promotes Bone metastasis via Extracellular Vesicles Secretion**

Tomofumi Yamamoto<sup>1,2,3</sup>, Takayuki Mizutani<sup>4</sup>, Yusuke Yoshioka<sup>1</sup>, Takahiro Ochiya<sup>1</sup> (<sup>1</sup>Dept. Mol. Cell. Med., Inst. Med. Sci., Tokyo Med. Univ., <sup>2</sup>Clin. Physiol. & Therap., Keio Univ. Faculty of Pharm., <sup>3</sup>Div. Cell. Sig. Natl. Cancer Ctr. Res. Inst., <sup>4</sup>Dept. Translational Res. for ExtraCell. Vesicles, Tokyo Med. Univ.)

セリン代謝異常がもたらす細胞外小胞を介した骨転移制御機構  
 山元 智史<sup>1,2,3</sup>、水谷 隆之<sup>4</sup>、吉岡 祐亮<sup>1</sup>、落谷 孝広<sup>1</sup>（東京医大・医総研・分子細胞治療、<sup>2</sup>慶應大・薬・病態生理学、<sup>3</sup>国立がん研セ・研・細胞情報学、<sup>4</sup>東京医大・産学連携・細胞外小胞創薬研究）

**E11-3-4 Anti-tumor capacity of specific contents in small extracellular vesicles derived from ADSCs in ovarian cancer**

Akira Yokoi<sup>1,2</sup>, Kosuke Yoshida<sup>1,2</sup>, Kaname Uno<sup>1</sup>, Hiroaki Kajiyama<sup>1</sup> (<sup>1</sup>Dept. Obst. & Gyn., Nagoya Univ. Grad. Sch. of Med., <sup>2</sup>Inst. for Advanced Biosci., Keio Univ.)

卵巣がんにおける脂肪系幹細胞由來 small extracellular vesicles の抗腫瘍効果

横井 晓<sup>1,2</sup>、吉田 康将<sup>1,2</sup>、宇野 枝<sup>1</sup>、梶山 広明<sup>1</sup>（名古屋大・医・産婦人科、<sup>2</sup>名古屋大・高等研究院）

**E11-3-5 Glycan quality control system and its potential role in inducing ER stress in tumor hypoxia**

Yoichiro Harada<sup>1</sup>, Ken Hanzawa<sup>2</sup>, Yu Mizote<sup>3</sup>, Takashi Akazawa<sup>3</sup>, Hideaki Tahara<sup>3</sup>, Yasuhide Miyamoto<sup>2</sup>, Naoyuki Taniguchi<sup>1</sup> (<sup>1</sup>OICI, Dept. Glyco-Oncology & Med. Biochem., <sup>2</sup>OICI, Dept. Mol. Biol., <sup>3</sup>OICI, Dept. Cancer Drug Discovery & Development)

腫瘍内低酸素環境において糖鎖の品質管理機構は小胞体ストレスを誘導するかもしれない

原田 陽一郎<sup>1</sup>、半澤 健<sup>2</sup>、溝手 雄<sup>3</sup>、赤澤 隆<sup>3</sup>、田原 秀晃<sup>3</sup>、宮本 泰豪<sup>2</sup>、谷口 直之<sup>1</sup>（大阪国際がんセ・研・糖鎖オンコロジー、<sup>2</sup>大阪国際がんセ・研・分子生物学、<sup>3</sup>大阪国際がんセ・研・がん創薬）

**E11-3-6 Drug repositioning screening for an inhibitor of EV secretion in ovarian cancer cells**

Yusuke Yoshioka<sup>1</sup>, Akira Yokoi<sup>2</sup>, Takahiro Ochiya<sup>1</sup> (<sup>1</sup>Dept. Mol. Cell. Med., Inst. Med. Sci., Tokyo Med. Univ., <sup>2</sup>Dept. Obst. & Gyn. Univ. Nagoya, Sch. Med.)

ドラッグリポジショニングを用いた卵巣がん細胞のエクソソーム分泌抑制剤のスクリーニング

吉岡 祐亮<sup>1</sup>、横井 晓<sup>2</sup>、落谷 孝広<sup>1</sup>（東京医大・医総研・分子細胞治療、<sup>2</sup>名古屋大・医・産婦人科）

## English Oral Sessions

Room 7	Oct. 2 (Sat.) 14:45-16:00	E
E11-4	Characteristics of cancer cells (4) がん細胞の特性 (4)	
Chairperson: Tsuyoshi Osawa (RCAST, The Univ. of Tokyo) 座長: 大澤 肇 (東京大・先端研)		
<b>E11-4-1</b> <b>Mannose and phosphomannose isomerase regulate energy metabolism under glucose starvation in leukemia</b> <u>Yusuke Saito, Hiroshi Moritake (Div. Pediatrics, Univ. of Miyazaki, Miyazaki)</u> マンノース代謝はグルコース飢餓時の解糖系を制御する 齋藤 祐介、盛武 浩 (宮崎大・医・小児科学分野)		
<b>E11-4-2</b> <b>Petasin potently inhibits mitochondrial-complex-I-based metabolism supporting tumor growth and metastasis</b> <u>Kazuki Heishima<sup>1</sup>, Nobuhiko Sugito<sup>1</sup>, Tomoyoshi Soga<sup>2</sup>, Yuko Ito<sup>3</sup>, Yukihiro Akao<sup>1</sup> (<sup>1</sup>United Grad. Sch. Drug Discov. Med. Info. Sci., Gifu Univ., <sup>2</sup>Inst. for Advanced Biosci., Keio Univ., <sup>3</sup>Dept. Anatomy &amp; Cell Biol. Osaka Med. College)</u> 高活性呼吸鎖複合体I阻害剤ペタシンを用いたミトコンドリア代謝阻害による腫瘍増殖・転移阻害 平島一輝 <sup>1</sup> 、杉戸 信彦 <sup>1</sup> 、曾我 朋義 <sup>2</sup> 、伊藤 裕子 <sup>3</sup> 、赤尾 幸博 <sup>1</sup> ( <sup>1</sup> 岐阜大・連合創薬、 <sup>2</sup> 慶應大・先端生命科学研、 <sup>3</sup> 大阪医大・解剖学)		
<b>E11-4-3</b> <b>Phosphomimetic Dicer regulates microRNAs and glutamine metabolism switch in gemcitabine resistance of pancreatic cancer</b> <u>Chiu Chingfeng<sup>1</sup>, Jimin Park<sup>1,2</sup>, Chiaying Lin<sup>1</sup>, Chienchao Chiu<sup>3</sup>, Shaowen Hung<sup>4,5</sup>, Yenhai Su<sup>5,6</sup>, Hsinan Chen<sup>5,6</sup> (<sup>1</sup>Grad. Inst. of Metabolism &amp; Obesity Sci. TMU, Taiwan, <sup>2</sup>Sch. of Nutrition &amp; Health Sci., TMU, Taiwan, <sup>3</sup>Div. Animal Industry, Animal Tech. Lab., ATRI, Taiwan, <sup>4</sup>Dept. Nursing, YUMT, Taiwan, <sup>5</sup>Div. General Surg, Shuang Ho Hosp., TMU, Taiwan, <sup>6</sup>Dept. Surg, Sch. of Med., TMU, Taiwan)</u>		
<b>E11-4-4</b> <b>CERS6 and CEBP<math>\gamma</math> required for cell migration and metastasis through an alteration in the ceramide metabolic profile.</b> <u>Hanxiao Shi<sup>1</sup>, Toshiyuki Takeuchi<sup>1</sup>, Atsuko Niimi<sup>1</sup>, Yasuyoshi Mizutani<sup>1</sup>, Taisuke Kajino<sup>2</sup>, Shuta Tomida<sup>3</sup>, Takashi Takahashi<sup>4</sup>, Motoshi Suzuki<sup>1</sup> (<sup>1</sup>Dept. Mol. Oncol, Fujita Health Univ., Sch. Med., <sup>2</sup>Div. Mol. Diag., Aichi Cancer Ctr. Res. Inst., <sup>3</sup>Dept. Biobank, Okayama Univ. Grad. Sch. Med. Dent. &amp; Pharm. Sci., <sup>4</sup>Aichi Cancer Ctr.)</u> CERS6とCEBP $\gamma$ はセラミド代謝プロファイル変化を通じてがん転移を促進する 石含笑 <sup>1</sup> 、竹内 俊幸 <sup>1</sup> 、新美 敦子 <sup>1</sup> 、水谷 泰嘉 <sup>1</sup> 、梶野 泰祐 <sup>2</sup> 、富田 秀太 <sup>3</sup> 、高橋 隆 <sup>4</sup> 、鈴木 元 <sup>1</sup> ( <sup>1</sup> 藤田医大・医・分子腫瘍、 <sup>2</sup> 愛知県がんセ・研・分子診断 TR、 <sup>3</sup> 岡山大・バイオバンク、 <sup>4</sup> 愛知県がんセ)		
<b>E11-4-5</b> <b>Autophagy and Metabolic Reprogramming Regulated by PKC<math>\lambda/\mu</math> in Liver Cancer</b> <u>Yotaro Kudo, Kazuhiko Koike (Univ. of Tokyo, Dept. Gastroenterology)</u> PKC $\lambda/\mu$ 分子によるオートファジーと代謝リプログラミングを介した肝がんの発生・進展制御機構 工藤 洋太郎、小池 和彦 (東京大・院・消化器内科)		
<b>E11-4-6</b> <b>Characters of stem cells underlying cancer proneness in the gastric transition zone between fundic and pyloric glands</b> <u>Nozomu Miyajima, Naoko Hattori, Yuyu Liu, Satoshi Yamashita, Toshikazu Ushijima (Div. Epigenom. Nat. Can. Ctr. Res. Inst. Tokyo Japan)</u> 胃の上皮移行部における高発がん性に関与する幹細胞の特性 宮嶋 望、服部 奈緒子、Yuyu Liu、山下 聰、牛島 俊和 (国立がん研セ・研・エピゲノム)		
Room 8	Oct. 2 (Sat.) 13:30-14:45	E
E17-1	Chemotherapy and endocrine therapy (1) 化学療法・内分泌療法 (1)	
Chairperson: Mikihiko Naito (Grad. Sch. of Pharm. Sci., The Univ. of Tokyo) 座長: 内藤 幹彦 (東京大・院薬)		
<b>E17-1-1</b> <b>Translational Nanomedicine Boosts Anti-PD1 Therapy to Eradicate Orthotopic PTEN-Negative Glioblastoma</b> <u>Hiroaki Kinoh<sup>1</sup>, Sabina Quader<sup>1</sup>, Horacio Cabral<sup>2</sup>, Kazunori Kataoka<sup>1</sup> (<sup>1</sup>Inovation Ctr. of NanoMed., <sup>2</sup>Univ. Tokyo Bioengineering)</u> 悪性脳腫瘍(グリオblastoma)に対する免疫チェックポイント阻害剤の効果を飛躍的に高めるナノDDSを用いた化学免疫療法 喜納 宏昭 <sup>1</sup> 、クワドラ サビーナ <sup>1</sup> 、カブラル オラシオ <sup>2</sup> 、片岡 一則 <sup>1</sup> ( <sup>1</sup> ナノ医療イノベーションセ、 <sup>2</sup> 東京大・工学・バイオエンジン)		
<b>E17-1-2</b> <b>Intratumoral complex responses to conventional chemotherapy in AML revealed by single cell RNA-seq</b> <u>Hideaki Mizuno, Akira Honda, Mineo Kurokawa (Univ. of Tokyo Hosp. Dept. Hemato. &amp; Oncol.)</u> シングルセルRNAシークエンスに基づくAMLの治療反応の多様性 水野 明秀、本田 晃、黒川 峰夫 (東京大・医附属病院・血液・腫瘍内科)		
<b>E17-1-3</b> <b>Curcumin monoglucuronide modulates tumor microenvironment of Pten-null prostate tumors and exhibits antitumor activity</b> <u>Yurie Kura<sup>1</sup>, Marco A. Develasco<sup>1</sup>, Kazuko Sakai<sup>1</sup>, Yoshihiko Fujita<sup>1</sup>, Mamoru Hashimoto<sup>2</sup>, Yasunori Mori<sup>2</sup>, Takafumi Minami<sup>2</sup>, Kazutoshi Fujita<sup>2</sup>, Hideaki Kakeya<sup>3</sup>, Hirotugu Uemura<sup>2</sup>, Kazuto Nishio<sup>1</sup> (<sup>1</sup>Dept. Genome Biol. Kindai Univ. Faculty of Med., <sup>2</sup>Dept. Urol. Kindai Univ. Faculty of Med., <sup>3</sup>Grad. Sch. of Pharm. Sci, Kyoto Univ.)</u> クルクミンモノグルコニドはPten欠損前立腺癌の腫瘍微小環境を調節し抗腫瘍活性を示す 倉 由吏恵 <sup>1</sup> 、デベラスコ マルコ <sup>1</sup> 、坂井 和子 <sup>1</sup> 、藤田 至彌 <sup>1</sup> 、橋本 壮 <sup>2</sup> 、森 康範 <sup>2</sup> 、南 高文 <sup>2</sup> 、藤田 和利 <sup>2</sup> 、掛谷 秀昭 <sup>3</sup> 、植村 天受 <sup>2</sup> 、西尾 和人 <sup>1</sup> ( <sup>1</sup> 近畿大・医・ゲノム生物学教室、 <sup>2</sup> 近畿大・医・泌尿器科学教室、 <sup>3</sup> 京都大・院薬)		
<b>E17-1-4</b> <b>Improved treatment effect by manipulation of drug physicochemical parameters</b> <u>Mishra Radhika, Ryoichi Fukumura, Ariunbunnyan Sukhbaatar, Shiro Mori, Maya Sakamoto, Tetsuya Kodama (Lab. of BioMed. Engineering for Cancer, Tohoku Univ.)</u>		
<b>E17-1-5</b> <b>Antitumor effects of a novel ketogenic diet using poly-hydroxybutyrate</b> <u>Masaki Nagane<sup>1</sup>, Takaya Ishihara<sup>2</sup> (<sup>1</sup>Sch. Vet. Med. Azabu Univ., <sup>2</sup>Dept. Biol. Sci. Osaka Univ.)</u> ポリヒドロキシ酪酸を用いた新規ケトジェニックダイエットによる抗腫瘍作用 永根 大幹 <sup>1</sup> 、石原 孝也 <sup>2</sup> ( <sup>1</sup> 麻布大・獣医、 <sup>2</sup> 大阪大・理学生物学専攻)		
<b>E17-1-6</b> <b>Discovering the mechanism of cellular resistance to irinotecan and finding a predictive biomarker</b> <u>Koji Ando<sup>1</sup>, Hirofumi Hasuda<sup>1</sup>, Hiroya Matsuoka<sup>1</sup>, Qingjian Hu<sup>1</sup>, Ajit Bharti<sup>2</sup>, Eiji Oki<sup>1</sup> (<sup>1</sup>Dept. Surg. &amp; Sci., Kyushu Univ., <sup>2</sup>Boston Univ. Sch. of Med.)</u> イリノテカン耐性機序の解明およびバイオマーカー探索 安藤 幸滋 <sup>1</sup> 、蓮田 博文 <sup>1</sup> 、松岡 弘也 <sup>1</sup> 、胡 慶江 <sup>1</sup> 、バーティ アジット <sup>2</sup> 、沖 英次 <sup>1</sup> ( <sup>1</sup> 九州大・病院・消化管外科 2、 <sup>2</sup> Boston Univ. Sch. of Med.)		

**English Oral Sessions**

Room 8 Oct. 2 (Sat.) 14:45-16:00

E

**E17-2****Chemotherapy and endocrine therapy (2)**

化学療法・内分泌療法 (2)

Chairperson: Kazuko Sakai (Dept. Genome Biol. Kindai Univ. Faculty of Med.)  
 座長: 坂井 和子 (近畿大・医・ゲノム生物学教室)

**E17-2-1 Roles for hENT1 and dCK in gemcitabine sensitivity and malignancy of meningioma**

Masahiro Yamamoto<sup>1</sup>, Tomomi Sanomachi<sup>1,2</sup>, Shuhei Suzuki<sup>1,2</sup>, Hiroyuki Uchida<sup>1</sup>, Masashi Okada<sup>1</sup>, Yukihiko Sonoda<sup>4</sup>, Koji Yoshimoto<sup>3</sup>, Chifumi Kitanaka<sup>1,5</sup> (<sup>1</sup>Yamagata Univ. Mol. Cancer Sci., <sup>2</sup>Yamagata Univ. Clin. Oncol., <sup>3</sup>Kagoshima Univ. Neurosurg., <sup>4</sup>Yamagata Univ. Neurosurg., <sup>5</sup>Yamagata Univ. Res. Inst. Prom. Med. Sci.)

**hENT1 と dCK の髄膜腫のゲムシタビン感受性および悪性度における役割**

山本 雅大<sup>1</sup>、佐野町 友美<sup>1,2</sup>、鈴木 修平<sup>1,2</sup>、内田 裕之<sup>3</sup>、岡田 雅司<sup>1</sup>、園田 順彦<sup>4</sup>、吉本 幸司<sup>3</sup>、北中 千史<sup>1,5</sup> (<sup>1</sup>山形大・医・腫瘍分子、<sup>2</sup>山形大・医・腫瘍内科、<sup>3</sup>鹿児島大・医・脳神経外科、<sup>4</sup>山形大・医・脳神経外科、<sup>5</sup>山形大・メディカルサイエンス推進研)

**E17-2-2 Effect of LDDS on metastatic lymph nodes at different stages**

Ariunbayan Sukhaatar<sup>1,2</sup>, Hitomi Miyashita<sup>3</sup>, Shiro Mori<sup>1,2,3</sup>, Tetsuya Kodama<sup>1,2,3,4</sup> (<sup>1</sup>Lab. of Biomed. Engineering for Cancer, Tohoku Univ., <sup>2</sup>Biomed. Engineering Cancer Res. Ctr., Tohoku Univ., <sup>3</sup>Dept. Oral & Maxillofacial Surg., Tohoku Univ. Hosp., <sup>4</sup>Dept. Electronic Engineering, Grad. Sch. of Engineering, Tohoku Univ.)

**腫瘍増殖状態が異なる転移リンパ節に対する LDDS の治療効果**  
 スフバートル アリウンブヤン<sup>1,2</sup>、宮下 仁<sup>3</sup>、森士朗<sup>1,2,3</sup>、小玉 哲也<sup>1,2,3,4</sup> (<sup>1</sup>医工学研究室東北大、<sup>2</sup>がん医工学センター東北大、<sup>3</sup>東北大・病院・講師、<sup>4</sup>工学研究科・電子工学専攻)

**E17-2-3 Anti-proliferative effect of Cinobufagin on acute myeloid leukemia cells with repression of Myc pathway associated genes**

Yoshiro Hirasaki<sup>1</sup>, Atsushi Okabe<sup>2</sup>, Masaki Fukuyo<sup>2</sup>, Takayuki Hoshii<sup>2</sup>, Motoaki Seki<sup>2</sup>, Atsushi Kaneda<sup>2</sup> (<sup>1</sup>Dept. Japanese-Oriental Med., Grad. Sch. Med., Chiba Univ., <sup>2</sup>Dept. Mol. Oncol, Grad. Sch. Med., Chiba Univ.)

**シノブファギンはヒト急性骨髓性白血病細胞株に対して Myc 関連遺伝子の抑制を伴った抗腫瘍効果を発揮する**

平崎 能郎<sup>1</sup>、岡部 篤史<sup>2</sup>、福世 真樹<sup>2</sup>、星居 孝之<sup>2</sup>、関 元昭<sup>2</sup>、金田 篤志<sup>2</sup> (<sup>1</sup>千葉大・院医・和漢診療学、<sup>2</sup>千葉大・院医・分子腫瘍学)

**E17-2-4 A dopamine D2 receptor antagonist suppresses oncogenic focus formation in a receptor-independent manner**

Megumi Aoyama<sup>1</sup>, Jiro Fujimoto<sup>1,2</sup>, Hiroyuki Hirano<sup>3</sup>, Noubumoto Watanabe<sup>3</sup>, Hiroyuki Osada<sup>3</sup>, Kentaro Semb<sup>1,4</sup> (<sup>1</sup>Grad. Sch. of Advanced Sci. & Eng., Waseda Univ., <sup>2</sup>Japan Biological Informatics Consortium (JBiC), <sup>3</sup>RIKEN CSRS, <sup>4</sup>TR Ctr., Univ. of Fukushima Med.)

**ドーパミン受容体アンタゴニストの受容体非依存的なフォーカス形成抑制能**

青山 愛<sup>1</sup>、藤元 次郎<sup>1,2</sup>、平野 弘之<sup>3</sup>、渡辺 信元<sup>3</sup>、長田 裕之<sup>3</sup>、仙波 憲太郎<sup>1,4</sup> (<sup>1</sup>早大・先進研・生医、<sup>2</sup>バイオ産業情報化コンソーシアム、<sup>3</sup>理研・環境資源セ、<sup>4</sup>福島医大・TR セ)

**E17-2-5 A novel inhibitor of one carbon metabolism with Chk1 inhibitor is a rational combination strategy to treat breast cancer**

Tatsunori Nishimura<sup>1</sup>, Jin Lee<sup>1</sup>, Xiaoxi Chen<sup>1</sup>, Mengjiao Li<sup>1</sup>, Yuming Wang<sup>1</sup>, Satoko Ishikawa<sup>2</sup>, Arinobu Tojo<sup>3</sup>, Noriko Gotoh<sup>1</sup> (<sup>1</sup>Cancer Res. Inst., Kanazawa Univ., <sup>2</sup>Grad. Sch. of Med. Sci., Kanazawa Univ., <sup>3</sup>Tokyo Med. & Dent. Univ.)

**がん特異的葉酸代謝酵素の新規拮抗剤とチェックポイントキナーゼ阻害剤の併用による合理的ながん細胞死誘導**

西村 建徳<sup>1</sup>、Jin Lee<sup>1</sup>, Xiaoxi Chen<sup>1</sup>, Mengjiao Li<sup>1</sup>, Yuming Wang<sup>1</sup>、石川 聰子<sup>2</sup>、東條 有伸<sup>3</sup>、後藤 典子<sup>1</sup> (<sup>1</sup>金沢大・がん進展制御研、<sup>2</sup>金沢大・院医薬保健学、<sup>3</sup>東京医歯大)

**E17-2-6****Antitumor effect of astatine-211-labeled anti-tissue factor antibody stabilized with sodium ascorbate**

Hiroki Takashima<sup>1</sup>, Yoshikatsu Koga<sup>1,2</sup>, Shino Manabe<sup>3,4,5</sup>, Kazunobu Ohnuki<sup>6</sup>, Ryo Tsumura<sup>1</sup>, Takahiro Anzai<sup>1</sup>, Yang Wang<sup>7</sup>, Xiaojie Yin<sup>7</sup>, Akihiro Nambu<sup>7</sup>, Nozomi Sato<sup>7</sup>, Sachiko Usuda<sup>7</sup>, Hiromitsu Haba<sup>7</sup>, Hirofumi Fujii<sup>6</sup>, Yasuhiro Matsumura<sup>8</sup>, Masahiro Yasunaga<sup>1</sup> (<sup>1</sup>Div. Developmental Therap., EPOC, Natl. Cancer Ctr., <sup>2</sup>Dept. Strategic Programs, EPOC, Natl. Cancer Ctr., <sup>3</sup>Lab. Functional Mol. Chemistry, Hoshi Univ., <sup>4</sup>Res. Ctr. for Pharm. Development, Tohoku Univ., <sup>5</sup>Glycometabolic Biochem. Lab., RIKEN, <sup>6</sup>Div. Functional Imaging, EPOC, Natl. Cancer Ctr., <sup>7</sup>Nishina Ctr. for Accelerator-Based Sci., RIKEN, <sup>8</sup>Dept. Immune Med., Natl. Cancer Ctr. Res. Inst.)

**アスコルビン酸 Na で安定化されたアスタチン-211 結合抗組織因子抗体の抗腫瘍効果**

高島 大輝<sup>1</sup>、古賀 宣勝<sup>1,2</sup>、眞鍋 史乃<sup>3,4,5</sup>、大貫 和信<sup>6</sup>、津村 遼<sup>1</sup>、安西 高廣<sup>1</sup>、王 洋<sup>7</sup>、殷 小杰<sup>7</sup>、南部 明弘<sup>7</sup>、佐藤 望<sup>7</sup>、臼田 祥子<sup>7</sup>、羽場 宏光<sup>7</sup>、藤井 博史<sup>5</sup>、松村 保広<sup>1</sup>、安永 正浩<sup>1</sup> (<sup>1</sup>国立がん研セ・先端医療開発セ・新薬開発、<sup>2</sup>国立がん研セ・先端医療開発セ・研究企画推進、<sup>3</sup>星葉科大・葉・機能分子創成化学研究室、<sup>4</sup>東北大・葉・医薬品開発研究セ、<sup>5</sup>理研・糖鎖代謝生化学研究室、<sup>6</sup>国立がん研セ・先端医療開発セ・機能診断、<sup>7</sup>理研・仁科加速器科学研究セ・核化学研究、<sup>8</sup>国立がん研セ・研・免疫創薬)

## English Oral Sessions

Room 9	Oct. 2 (Sat.) 13:30-14:45	E	English Oral Sessions
E14-9	<b>Cancer basic, diagnosis and treatment (9): Head and neck cancer</b> 臓器がんの基礎・診断・治療 (9) :頭頸部がん		
Chairperson: Kazuaki Chikamatsu (Dept. Otolaryngology-Head & Neck Surg., The Univ. of Gunma)	座長:近松一朗(群馬大・医・耳鼻咽喉科・頭頸部外科学)		
<b>E14-9-1 Overexpression SCEL Suppresses the Migration and Invasion of Oral Squamous Cell Carcinoma</b>	Li Daping <sup>1</sup> , Shu Wu <sup>1</sup> , Yingxi Mo <sup>2</sup> , Xiaoying Zhou <sup>3</sup> , Ping Li <sup>1</sup> ( <sup>1</sup> Dept. Pathol., College & Hosp. of Stomatolgy Guangxi Med. Univ., <sup>2</sup> Dept. Res., Affiliated Tumor Hosp. Guangxi Med. Univ., <sup>3</sup> Life Sci. Institutet, Guangxi Med. Univ.)		
<b>E14-9-2 Immunohistochemical staining patterns of p53 predict the mutational status of TP53 in oral epithelial dysplasia</b>	Keisuke Sawada <sup>1</sup> , Shuji Momose <sup>1</sup> , Ryutaro Kawano <sup>1</sup> , Masakazu Kohda <sup>2</sup> , Tarou Irie <sup>3</sup> , Kenji Mishima <sup>4</sup> , Yasushi Okazaki <sup>2</sup> , Morihiro Higashi <sup>1</sup> , Junichi Tamari <sup>1</sup> ( <sup>1</sup> Dept. Path., SMC., Saitama Univ. Med., <sup>2</sup> Diag & Therap., IDRC., Juntendo Univ. Grad. Sch. Med., <sup>3</sup> Dept. Phat., Sch. Dent., Iwate. Med. Univ., <sup>4</sup> Div. Path., Dept. Oral. Diag. Sci., Sch. Dent., Showa Univ.)		
口腔上皮性異形成におけるp53の免疫組織化学的染色パターンがTP53の変異状態を予測する	沢田圭佑 <sup>1</sup> 、百瀬修二 <sup>1</sup> 、川野竜太郎 <sup>1</sup> 、神田将和 <sup>2</sup> 、入江太郎 <sup>3</sup> 、美島健二 <sup>4</sup> 、岡崎康司 <sup>2</sup> 、東守洋 <sup>1</sup> 、田丸淳一 <sup>1</sup> ( <sup>1</sup> 埼玉医大・総合医療セ・病理部、 <sup>2</sup> 順天堂大・ゲ医研・難疾患、 <sup>3</sup> 岩医大歯・病理学 病態解析学、 <sup>4</sup> 昭和大・歯・口腔病態診断・口腔病理学)		
<b>E14-9-3 Longitudinal change of B-catenin expression is associated with immune exclusion and resistance of head and neck cancer</b>	Junichi Mitsuuda, Kanako Yoshimura, Alisa Kimura, Hiroki Morimoto, Sumiyo Saburi, Gaku Ohmura, Takahiro Tsujikawa (Dept. Otolaryngology Head & Neck Surg., KPUM)		
頭頸部癌におけるβカテニンの経時的变化は免疫除外・治療抵抗性と相關する	光田順一、吉村佳奈子、木村有佐、森本寛基、佐分利純代、大村学、辻川敬裕(京都府立医大・耳鼻咽喉科・頭頸部外科)		
<b>E14-9-4 Immune microenvironmental profiles associated with capsular invasion of follicular thyroid carcinoma</b>	Sumiyo Saburi, Junichi Mitsuuda, Kanako Yoshimura, Alisa Kimura, Hiroki Morimoto, Gaku Ohmura, Takahiro Tsujikawa (Otolaryngology Head & Neck Surg., Kyoto Pref. Univ. of Med.)		
甲状腺濾胞がん被膜浸潤と関連する免疫微小環境特性	佐分利純代、光田順一、吉村佳奈子、木村有佐、森本寛基、大村学、辻川敬裕(京都府立医大・耳鼻咽喉科・頭頸部外科)		
<b>E14-9-5 Establishment of Patient-Derived Xenografts of Adenoid Cystic Carcinoma with High-Grade Transformation</b>	Kenya Kobayashi <sup>1</sup> , Mizuo Ando <sup>2</sup> , Hiroyuki Mano <sup>3</sup> , Masahito Kawazu <sup>3</sup> ( <sup>1</sup> Dept. Head & Neck Surg., Natl. Cancer Ctr. Hosp., <sup>2</sup> Dept. Head & Neck Surg., Okayama Univ., <sup>3</sup> Div. Cell. Signaling, Natl. Cancer Ctr. Res. Inst.)		
患者由来腫瘍移植片モデルを用いた腺様囊胞癌の進展機序の解明	小林謙也 <sup>1</sup> 、安藤瑞生 <sup>2</sup> 、間野博行 <sup>3</sup> 、河津正人 <sup>3</sup> ( <sup>1</sup> 国立がん研セ・中央病院・頭頸部外科、 <sup>2</sup> 岡山大・耳鼻咽喉科・頭頸部外科、 <sup>3</sup> 国立がん研セ・研・細胞情報学)		
<b>E14-9-6 Neoadjuvant Use of Oncolytic Herpes Virus G47delta Prevents Stage Advancement of Tongue Cancer</b>	Kosuke Inoue <sup>1,2</sup> , Hirotaka Ito <sup>1</sup> , Miwako Iwai <sup>1</sup> , Yoshiyuki Mori <sup>2</sup> , Tomoki Todo <sup>1</sup> ( <sup>1</sup> Inst. of Med. Sci., The Univ. of Tokyo, <sup>2</sup> Dept. Oral & Maxillofacial Surg., Jichi Med. Univ.)		
腫瘍溶解性ウイルスG47Δを術前療法として用いることで、舌癌の進行を抑制する	井上公介 <sup>1,2</sup> 、伊藤博崇 <sup>1</sup> 、岩井美和子 <sup>1</sup> 、森良之 <sup>2</sup> 、藤堂真紀 <sup>1</sup> ( <sup>1</sup> 東京大・医科研・先端がん治療分野、 <sup>2</sup> 自治医大・医・歯科口腔外科学講座)		
<b>E23/24/25/26-1</b>			
<b>Cancer prevention/chemoprevention, epidemiology and information/informatics</b> がんの予防・化学予防／疫学・情報			
Chairperson: Hidemi Ito (Aichi Cancer Ctr.)	座長:伊藤秀美(愛知県がんセ)	E	
<b>E23/24/25/26-1</b>	<b>Dietary intake of advanced glycation end products and the risk of stomach cancer: the Takayama study</b> Keiko Wada, Chisato Nagata (Dept. Epi. & Pvntmed., Gifu Univ., Grad. Sch. Med.)		
食品由来終末糖化産物と胃がんリスク:高山スタディ 和田恵子、永田知里(岐阜大・医・疫学・予防医学)			
<b>E23/24/25/26-2</b>	<b>Sugary drink consumption and colorectal cancer risk: the Japan Public Health Center-based Prospective Cohort Study</b> Chi Y. Leung <sup>1,2</sup> , Sarah K. Abe <sup>1</sup> , Noria Sawada <sup>1</sup> , Junko Ishihara <sup>3</sup> , Ribeka Takachi <sup>4</sup> , Taiki Yamaji <sup>1</sup> , Motoki Iwasaki <sup>1</sup> , Manami Inoue <sup>1,5</sup> , Shoichiro Tsugane <sup>1</sup> ( <sup>1</sup> Ctr. for Public Health Sci., Natl. Cancer Ctr., <sup>2</sup> Dept. Global Health Policy, The Univ. of Tokyo, <sup>3</sup> Dept. Food & Life Sci., Azabu Univ., <sup>4</sup> Dept. Food Sci. & Nutrition, Nara Women's Univ., <sup>5</sup> Dept. Cancer Epidemiology, The Univ. of Tokyo)		
<b>E23/24/25/26-3</b>	<b>Impact of ALDH2 rs671 and alcohol on pancreatic cancer risk: an evaluation by mediation analysis</b> Yuriko N. Koyanagi <sup>1</sup> , Yumiko Kasugai <sup>2,3</sup> , Isao Oze <sup>2</sup> , Yukari Taniyama <sup>1</sup> , Hidemi Ito <sup>1,4</sup> , Keitaro Matsuo <sup>2,3</sup> ( <sup>1</sup> Div. Cancer Information & Control, Aichi Cancer Ctr., <sup>2</sup> Div. Cancer Epidemiology & Prevention, Aichi Cancer Ctr., <sup>3</sup> Div. Cancer Epidemiology, Nagoya Univ. Grad. Sch. Med., <sup>4</sup> Div. Descriptive Cancer Epidemiology, Nagoya Univ. Grad. Sch. Med.)		
ALDH2多型と飲酒の肺がんリスクへの影響:媒介分析による評価 小柳友理子 <sup>1</sup> 、春日井由美子 <sup>2,3</sup> 、尾瀬功 <sup>2</sup> 、谷山祐香里 <sup>1</sup> 、伊藤秀美 <sup>1,4</sup> 、松尾恵太郎 <sup>2,3</sup> ( <sup>1</sup> 愛知県がんセ・がん情報・対策研究分野、 <sup>2</sup> 愛知県がんセ・がん予防研究分野、 <sup>3</sup> 名古屋大・院医・がん分析疫学、 <sup>4</sup> 名古屋大・院医・がん記述疫学)			
<b>E23/24/25/26-4</b>	<b>Trends in patterns of treatment and survival of colorectal cancer using population-based cancer registry data in Japan</b> Masatoshi Ota <sup>1</sup> , Yuri Ito <sup>2</sup> , Kohei Taniguchi <sup>3</sup> , Megumi Hori <sup>3</sup> , Kota Katanoda <sup>3</sup> , Kazuhisa Uchiyama <sup>1</sup> , Tomohiro Matsuda <sup>3</sup> ( <sup>1</sup> Dept. Gastro Surg. Osaka Med. & Pharm. Univ., <sup>2</sup> Dept. Med. Stat. Osaka Med. & Pharm. Univ., <sup>3</sup> Ctr. for Cancer Control & Information Service, Natl. Cancer Ctr., <sup>4</sup> Dept. Trans Res. Osaka Med. & Pharm. Univ.)		
住民ベースがん登録資料による大腸癌治療と生存率の変遷 太田将仁 <sup>1</sup> 、伊藤ゆり <sup>2</sup> 、谷口高平 <sup>4</sup> 、堀芽久美 <sup>3</sup> 、片野田耕太 <sup>3</sup> 、内山和久 <sup>1</sup> 、松田智大 <sup>3</sup> ( <sup>1</sup> 大阪医科大学・消化器外科、 <sup>2</sup> 大阪医科大学・研究支援セ・医療統計室、 <sup>3</sup> 国立がん研セ・がん対策情報セ、 <sup>4</sup> 大阪医科大学・TR部門)			
<b>E23/24/25/26-5</b>	<b>Mathematical modeling of tumor immune escape identifies beneficial conditions of immunotherapy.</b> Hiroshi Haeno (Grad. Sch. of Frontier Sci., The Univ. of Tokyo)		
免疫に対するがん進化の数理モデルによる免疫チェックポイント阻害剤の奏功条件の解析 波江野洋(東京大・新領域・メデイカル情報生命)			
<b>E23/24/25/26-6</b>	<b>The molecular network analysis of RNA viral network in diffuse-and intestinal-type gastric cancer</b> Shihori Tanabe <sup>1</sup> , Sabina Quader <sup>2</sup> , Ryuichi Ono <sup>3</sup> , Horacio Cabral <sup>4</sup> , Kazuhiko Aoyagi <sup>5</sup> , Akihiko Hirose <sup>1</sup> , Mitsunobu R. Kano <sup>6</sup> , Hiroshi Yokozaki <sup>7</sup> , Hiroki Sasaki <sup>8</sup> ( <sup>1</sup> Div. Risk Assess., CBSR, Natl. Inst. Health Sci., <sup>2</sup> iCONM, <sup>3</sup> Div. Cell. Mol. Tox., CBSR, Natl. Inst. Health Sci., <sup>4</sup> Grad. Sch. Engineer., Univ. of Tokyo, <sup>5</sup> Dept. Clin. Genomics, FIOC, Natl. Cancer Ctr. Res. Inst., <sup>6</sup> Regul. Grad. Sch. Interdiscipl. Sci. Engineer. Health Systems, Okayama Univ., <sup>7</sup> Dept. Path. Grad. Sch. Med., Kobe Univ., <sup>8</sup> Dept. Transl. Oncol., FIOC, Natl. Cancer Ctr. Res. Inst.)		
びまん型及び腸型胃がんにおけるRNAウイルスネットワークの分子ネットワーク解析 田邊思帆里 <sup>1</sup> 、Sabina Quader <sup>2</sup> 、小野竜一 <sup>3</sup> 、Horacio Cabral <sup>4</sup> 、青柳一彦 <sup>5</sup> 、広瀬明彦 <sup>1</sup> 、狩野光伸 <sup>6</sup> 、横崎宏 <sup>7</sup> 、佐々木博己 <sup>8</sup> ( <sup>1</sup> 国立衛研・安セ・安全予測評価、 <sup>2</sup> ナノ医療イノベーションセ、 <sup>3</sup> 国立衛研・安セ・毒性、 <sup>4</sup> 東京大・院工、 <sup>5</sup> 国立がん研セ・基臨研セ・臨床ゲノム解析、 <sup>6</sup> 岡山大・ヘルスシステム統合科学、 <sup>7</sup> 神戸大・院医・病理学、 <sup>8</sup> 国立がん研セ・基臨研セ・創薬標的のシーズ)			

**Japanese Oral Sessions**

Room 10 Oct. 2 (Sat.) 13:30-14:45

J

**J12-3** **Cancer immunity (3)**  
がん免疫 (3)

Chairperson: Takashi Matozaki (Kobe Univ. Grad. Sch. Med.)

座長：的崎 尚（神戸大・院医）

**J12-3-1** **Tertiary lymphoid structures in gastric cancer are associated with efficacy of nivolumab treatment**

Takuya Mori<sup>1</sup>, Hiroaki Tanaka<sup>1</sup>, Sota Deguchi<sup>1</sup>, Yuichiro Miki<sup>1</sup>, Mami Yoshii<sup>1</sup>, Tatsuro Tamura<sup>1</sup>, Takahiro Toyokawa<sup>1</sup>, Shigeru Lee<sup>1</sup>, Kazuya Muguruma<sup>1</sup>, Masachika Ohira<sup>1</sup> (Dept. Gastroenterological Surg., Osaka City Univ.)

## 胃癌組織内 TLS とニボルマブ治療の効果との関連

森 拓哉、田中 浩明、出口 惣太、三木 友一郎、吉井 真美、田村 達郎、豊川 貴弘、李 栄柱、六車 一哉、大平 雅一（大阪市立大・院・消化器外科）

**J12-3-2** **Analysis of intra-tumoral immune response before and after nivolumab treatment in gastric cancer**

Sato Yasuyoshi<sup>1,2</sup>, Hiroharu Yamashita<sup>1,4</sup>, Yukari Kobayashi<sup>2</sup>, Koji Nagaoka<sup>2</sup>, Shunji Takahashi<sup>3</sup>, Yasuyuki Seto<sup>1</sup>, Kazuhiro Kakimi<sup>2</sup> (<sup>1</sup>Dept. Gastrointestinal Surg., The Univ. of Tokyo, <sup>2</sup>Dept. ImmunoTherap., The Univ. of Tokyo Hosp., <sup>3</sup>Dept. Med. Oncology, The Cancer Inst. Hosp. of JFCR, <sup>4</sup>Dept. Digestive Surg., Nihon Univ. Hosp.)

## 胃癌におけるニボルマブ治療前後の腫瘍内免疫応答の解析

佐藤 靖祥<sup>1,2,3</sup>、山下 裕玄<sup>1,4</sup>、小林 由香利<sup>2</sup>、長岡 孝治<sup>2</sup>、高橋 俊二<sup>3</sup>、瀬戸 泰之<sup>1</sup>、垣見 和宏<sup>2</sup>（東京大・消化管外科、東京大・病院・免疫細胞治療学、<sup>3</sup>（公財）がん研・有明病院・総合腫瘍科、<sup>4</sup>日本大・病院・消化器外科）

**J12-3-3** **Combined treatment with immune checkpoint inhibitors and axitinib against murine renal cell cancer expressing human CA9**

Mamoru Harada<sup>1</sup>, Yuichi Iida<sup>1</sup>, Yoshihiro Komohara<sup>2</sup>, Hitoshi Kotani<sup>1</sup> (<sup>1</sup>Dept. Immunol., Shimane Univ. Facul. Med., <sup>2</sup>Dept. Cell. Path., Kumamoto Grad. Sch. Med.)

## ヒトCA9 発現マウス腎がんに対する免疫チェックポイント阻害と axitinib による複合がん療法

原田 守<sup>1</sup>、飯田 雄一<sup>1</sup>、菰原 義弘<sup>2</sup>、小谷 仁司<sup>1</sup>（島大・医・免疫、<sup>2</sup>熊本大・医・細胞病理）

**J12-3-4** **Changes of peripheral TCR/BCR repertoire are predictive biomarker for the efficacy of ICI in NSCLC**

Yoshihiro Nakahara<sup>1,2</sup>, Takaji Matsutani<sup>3</sup>, Yuka Igarashi<sup>4</sup>, Norikazu Matsuo<sup>5</sup>, Hidetomo Himuro<sup>4,6</sup>, Haruhiro Saito<sup>2</sup>, Kouzo Yamada<sup>2</sup>, Kenta Murotani<sup>7</sup>, Tomoaki Hoshino<sup>8</sup>, Koichi Azuma<sup>9</sup>, Tetsuro Sasada<sup>4,6</sup> (<sup>1</sup>Dept. Respiratory Med., Kitasato Univ. Sch. of Med., <sup>2</sup>Dept. Thoracic Oncology, Kanagawa Cancer Ctr., <sup>3</sup>Repertoire Genesis Inc., <sup>4</sup>Div. Cancer Immunotherapy, Kanagawa Cancer Ctr. Res. Inst., <sup>5</sup>Div. Respiriology, Kurume Univ. Sch. of Med., <sup>6</sup>Cancer Vaccine & Immunotherapy Ctr., Kanagawa Cancer Ctr. Res. Inst., <sup>7</sup>Biostatistics Ctr., Kurume Univ.)

## TCR/BCR レパートア多様性の変化は非小細胞肺癌における免疫チェックポイント阻害剤の効果予測因子である

中原 善朗<sup>1,2</sup>、松谷 隆治<sup>3</sup>、五十嵐 友香<sup>4</sup>、松尾 規和<sup>5</sup>、氷室 秀知<sup>4,6</sup>、齋藤 春洋<sup>2</sup>、山田 耕三<sup>2</sup>、室谷 健太<sup>7</sup>、星野 友昭<sup>5</sup>、東 公一<sup>5</sup>、笹田 哲朗<sup>4,6</sup>（北里大・医・呼吸器内科学、<sup>2</sup>神奈川県がんセンター・呼吸器内科、<sup>3</sup>Repertoire Genesis（株）、<sup>4</sup>神奈川県がんセンター・臨床研、<sup>5</sup>久留米大・医・呼吸器内科、<sup>6</sup>神奈川県がんセンター・免疫療法科、<sup>7</sup>久留米大・バイオ統計セ）

**J12-3-5** **Combined effects of immunotherapy with anti-CTLA-4 antibody and radiation therapy on pancreatic ductal adenocarcinoma**

Junya Yamamoto<sup>1</sup>, Yutaka Takahashi<sup>2</sup>, Kazumasa Minami<sup>1</sup>, Keisuke Tamari<sup>3</sup>, Shohei Katsuki<sup>1</sup>, Wataru Takenaka<sup>1</sup>, Hideki Matsutani<sup>1</sup>, Shotaro Tatekawa<sup>2</sup>, Kazuhiko Ogawa<sup>2</sup>, Masahiko Koizumi<sup>1</sup> (<sup>1</sup>Div. Health Sci., Osaka Univ. Grad. Sch. of Med., <sup>2</sup>Dept. Radiation Oncology, Osaka Univ. Grad. Sch. of Med.)

## 抗 CTLA-4 抗体を使った免疫療法と放射線療法の併用治療は、肺管癌の局所のみならず遠隔巣においても抗腫瘍効果が得られる

山本 純也<sup>1</sup>、高橋 豊<sup>2</sup>、皆巳 和賢<sup>2</sup>、玉利 廉介<sup>2</sup>、勝木 翔平<sup>1</sup>、武中 渉<sup>1</sup>、松谷 英樹<sup>1</sup>、立川 章太郎<sup>2</sup>、小川 和彦<sup>2</sup>、小泉 雅彦<sup>1</sup>（大阪大・院医・保健学専攻、<sup>2</sup>大阪大・院医・放射線治療学）

J12-4

**Cancer immunity (4)**

がん免疫 (4)

Chairperson: Hiroshi Kawamoto (Lab. of Immunology, Inst. for Frontier Life and Med. Sci., Kyoto Univ.)

座長：河本 宏（京都大・ウィルス・再生医科研・再生免疫学分野）

**J12-4-1 Development of TCR-T therapy targeting long non-coding RNA-derived antigens.**

Shuto Hamada<sup>1,2</sup>, Tomohide Tsukahara<sup>1,2</sup>, Yuto Watanabe<sup>1,2</sup>, Yasuhiro Kikuchi<sup>1</sup>, Munehide Nakatsugawa<sup>3</sup>, Takayuki Kanaseki<sup>1</sup>, Toshihiko Torigoe<sup>1</sup> (<sup>1</sup>Sapporo Med. Univ. Sch. of Med., Dept. Path., <sup>2</sup>Sapporo Med. Univ., Dept. Orthopaedic Surg., <sup>3</sup>Tokyo Med. Univ. Hachioji Med. Ctr., Dept. diagnostic Path.)

**long non-coding RNA由来抗原を標的としたTCR-T療法の開発**

濱田 修人<sup>1,2</sup>、塙原 智英<sup>1,2</sup>、渡部 裕人<sup>1,2</sup>、菊池 泰弘<sup>1</sup>、中津川 宗秀<sup>3</sup>、金関 貴幸<sup>1</sup>、鳥越 俊彦<sup>1</sup>（<sup>1</sup>札幌医大・第一病理、<sup>2</sup>札幌医大・整形外科、<sup>3</sup>東京医大・八王子医療センター病理診断部）

**J12-4-2 Development of a novel CAR-T cell therapy targeting ALK for small cell lung cancer**

Tetsu Takeda<sup>1</sup>, Koichi Hirabayashi<sup>2</sup>, Miyuki Tanaka<sup>2</sup>, Shigeki Yagyu<sup>3</sup>, Kimihiro Shimizu<sup>1</sup>, Yozo Nakazawa<sup>2</sup> (<sup>1</sup>Dept. Thoracic Surg., Shinshu Univ., <sup>2</sup>Dept. Pediatrics, Shinshu Univ., <sup>3</sup>Dept. Pediatrics, Kyoto Pref. Univ. of Medicine.)

**小細胞肺癌に対するALKを標的とした新規CAR-T療法の開発**

竹田 哲<sup>1</sup>、平林 耕一<sup>2</sup>、田中 美幸<sup>2</sup>、柳生 茂希<sup>3</sup>、清水 公裕<sup>1</sup>、中沢 洋三<sup>2</sup>（<sup>1</sup>信州大・外科学教室・呼吸器外科分野、<sup>2</sup>信州大・小児医学教室、<sup>3</sup>京都府立医大・小児医学教室）

**J12-4-3 CAFs recruit a specific subset of MDSCs for constructing immune suppressive microenvironment of pancreatic cancer.**

Hironori Fukuda<sup>1</sup>, Kazunori Aoki<sup>1</sup>, Makiko Yamashita<sup>2</sup>, Aya Hirata<sup>1</sup>, Shigehisa Kitano<sup>2</sup>, Yasuhito Arai<sup>3</sup>, Tatsuhiro Shibata<sup>3</sup>, Nobuyoshi Hiraoka<sup>4</sup>, Hideaki Mizuno<sup>5</sup>, Yukari Nishito<sup>5</sup>, Kazuaki Shimada<sup>6</sup>, Minoru Esaki<sup>6</sup>, Satoshi Nara<sup>6</sup> (<sup>1</sup>Dept. Immune Med., Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Advanced Med. Dev. Ctr., Cancer Inst. Hosp., <sup>3</sup>Div. Cancer Genomics, Natil Cancer Ctr. Res. Inst., <sup>4</sup>Dept. Mol. Pathol., Natil Cancer Ctr. Res., <sup>5</sup>CHUGAI Pharm. CO., LTD., <sup>6</sup>Dept. Hepatobiliary & Pancreatic Surg, Natil Cancer Ctr. Hosp.)

**膵がんにおいて、腫瘍間連線維芽細胞は特定の骨髄由来免疫細胞を誘導し、抑制的な免疫微小環境を構築する。**

福田 洋典<sup>1</sup>、青木 一教<sup>1</sup>、山下 万貴子<sup>2</sup>、平田 彩<sup>1</sup>、北野 滋久<sup>2</sup>、新井 康仁<sup>3</sup>、柴田 龍弘<sup>3</sup>、平岡 伸介<sup>4</sup>、水野 英明<sup>5</sup>、西藤 ゆかり<sup>5</sup>、島田 和明<sup>6</sup>、江崎 稔<sup>6</sup>、奈良 聰<sup>6</sup>（<sup>1</sup>国立がん研セ・研・免疫創薬、<sup>2</sup>（公財）がん研・有明病院・先端医療開発セ、<sup>3</sup>国立がん研セ・研・がんゲノミクス、<sup>4</sup>国立がん研セ・研・病理解析、<sup>5</sup>中外製薬（株）、<sup>6</sup>国立がん研セ・中央病院・肝胆脾外科）

**J12-4-4 Enhanced anti-tumor immune response in DGKζ-deficient mice**

Shunsuke Shichi<sup>1,2</sup>, Hidemitsu Kitamura<sup>2</sup>, Ko Sugiyama<sup>1,2</sup>, Saori Kimura<sup>1,2</sup>, Naoki Okada<sup>1</sup>, Akinobu Takeomi<sup>1</sup> (<sup>1</sup>Dept. Gastroenterological Surg. 1, Hokkaido Univ., Grad. Sch. Med., <sup>2</sup>Div. Functional Immunol., Inst. Genetic Med., Hokkaido Univ.)

**DGKζ欠損マウスにおける抗腫瘍免疫の増強**

志智 俊介<sup>1,2</sup>、北村 秀光<sup>2</sup>、杉山 昂<sup>1,2</sup>、木村 沙織<sup>1,2</sup>、岡田 尚樹<sup>1</sup>、武富 紹信<sup>1</sup>（北海道大・院医・消化器外科学I、<sup>2</sup>北海道大・遺制研・免疫機能学）

**J12-4-5 Combined treatment with celecoxib improves antitumor efficacy of STING agonists**

Akemi Kosaka<sup>1</sup>, Takayuki Ohkuri<sup>1</sup>, Yuki Yajima<sup>1,2</sup>, Shunsuke Yasuda<sup>1,3</sup>, Hiroki Komatsuda<sup>1,4</sup>, Marino Nagata<sup>1</sup>, Toshihiro Nagato<sup>1</sup>, Kensuke Oikawa<sup>1</sup>, Hiroya Kobayashi<sup>1</sup> (<sup>1</sup>Dept. Pathol., Asahikawa Med. Univ., <sup>2</sup>Dept. Oral & Maxillofacial Surg., Asahikawa Med. Univ., <sup>3</sup>Dept. Respiratory & Breast Ctr., Asahikawa Med. Univ. Hosp., <sup>4</sup>Dept. Otolaryngology, Head & Neck Surg., Asahikawa Med. Univ.)

**セレコキシブの併用治療はSTINGアゴニストの抗腫瘍活性を増強する**

小坂 朱<sup>1</sup>、大栗 敬幸<sup>1</sup>、矢島 優己<sup>1,2</sup>、安田 俊輔<sup>1,3</sup>、小松田 浩樹<sup>1,4</sup>、永田 真莉乃<sup>1</sup>、長門 利純<sup>1</sup>、及川 賢輔<sup>1</sup>、小林 博也<sup>1</sup>（<sup>1</sup>旭川医大・免疫病理、<sup>2</sup>旭川医大・歯科口腔外科学、<sup>3</sup>旭川医大・呼吸器・乳腺外科、<sup>4</sup>旭川医大・耳鼻咽喉科・頭頸部外科）

**J12-4-6 Human CAR-T cells producing IL-7 and CCL19 show enhanced anti-tumor efficacy against solid cancer in a PDX mouse model**

Shunsuke Goto<sup>1,2</sup>, Koji Tamada<sup>2</sup>, Masatoshi Eto<sup>1</sup> (<sup>1</sup>Dept. Urology, Grad. Sch. of Med. Sci., Kyushu Univ., <sup>2</sup>Dept. Immunol., Yamaguchi Univ. Grad. Sch. of Med.)

**IL-7/CCL19 産生型ヒトCAR-T細胞は患者由来固形腫瘍移植マウスモデルに対して優れた抗腫瘍効果を発揮する**

後藤 駿介<sup>1,2</sup>、玉田 耕治<sup>2</sup>、江藤 正俊<sup>1</sup>（<sup>1</sup>九州大・院医・泌尿器科学分野、<sup>2</sup>山口大・医・院医・免疫学）

**Japanese Oral Sessions**

Room 11 Oct. 2 (Sat.) 13:30-14:45 J

**J8****Cell death/immortalization**

細胞死・不死化

Chairperson: Shinji Kamada (Biosignal Res. Ctr., Kobe Univ.)  
 座長: 鎌田 真司 (神戸大・バイオシグナル総合研究セ)

**J8-1 RPF19 regulates p53-dependent cellular senescence by regulating alternative splicing of MDM4 mRNA**

Ryou Takahashi<sup>1</sup>, Kimiyoshi Yano<sup>2</sup>, Hidetoshi Tahara<sup>1</sup> (<sup>1</sup>Hiroshima Univ., Dept. Pharm., Div. Cell. Mol. Biol., <sup>2</sup>Natl. Cancer Ctr. Res. Inst., Div. Cell. Sig.)

## 新規細胞老化制御因子の同定とその機能解析

高橋 陵宇<sup>1</sup>、矢野 公義<sup>2</sup>、田原 栄俊<sup>1</sup> (<sup>1</sup>広島大・院医 (薬)・細胞分子生物学、<sup>2</sup>国立がん研セ・研・細胞情報学)

**J8-2 LY6D induces macropinocytosis to promote senescent cell survival by activating Integrin  $\beta$ 1-FAK signaling**

Taiki Nagano<sup>1</sup>, Keitaro Nakagawa<sup>2</sup>, Tetsushi Iwasaki<sup>1,2</sup>, Shinji Kamada<sup>1,2</sup> (<sup>1</sup>Biosig. Res. Ctr., Kobe Univ., <sup>2</sup>Grad. Sch. of Sci., Kobe Univ.)

LY6DはIntegrin  $\beta$ 1-FAK 経路を介してマクロピノサイトーシスを誘導することで老化細胞の生存を促進する

長野 太輝<sup>1</sup>、中川 桂太朗<sup>2</sup>、岩崎 哲史<sup>1,2</sup>、鎌田 真司<sup>1,2</sup> (<sup>1</sup>神戸大・バイオシグナル総合研究セ、<sup>2</sup>神戸大・院理・生物)

**J8-3 Clearance of senescent cells by BET-family protein degrader and their potential for cancer therapy**

Masahiro Wakita<sup>1</sup>, Eiji Hara<sup>1,2</sup> (<sup>1</sup>Osaka Univ. IFReC, <sup>2</sup>Osaka Univ. RIMD)

## BET ファミリー蛋白質分解剤による老化細胞の除去とそのがん治療への可能性

脇田 将裕<sup>1</sup>、原 英二<sup>1,2</sup> (<sup>1</sup>大阪大・免疫学フロンティア研究セ、<sup>2</sup>大阪大・微生物病研)

**J8-4 Asporin reprograms cancer cells to acquire resistance to oxidative stress and immunosuppression**

Masamitsu Tanaka<sup>1</sup>, Kurara Takagane<sup>1</sup>, Go Itoh<sup>1</sup>, Sei Kuriyama<sup>1</sup>, Satoru Yamada<sup>2</sup>, Masakazu Yashiro<sup>3</sup> (<sup>1</sup>Dept. Mol. Med. & Biochem. Akita Univ. Grad. Sch. Med., <sup>2</sup>Dept. Periodontology Endodontontology Tohoku Univ. Grad. Sch. Dent., <sup>3</sup>Dept. Surg. Oncol Osaka City Univ.)

## Asporin による癌細胞の代謝リプログラムは酸化ストレス抵抗性を獲得させる

田中 正光<sup>1</sup>、高金 くらら<sup>1</sup>、伊藤 剛<sup>1</sup>、栗山 正<sup>1</sup>、山田 聰<sup>2</sup>、八代 正和<sup>3</sup> (<sup>1</sup>秋田大・院医・分子生化学、<sup>2</sup>東北大・院歯・歯内歯周治療学、<sup>3</sup>大阪市大・腫瘍外科学)

**J8-5 TNF $\alpha$  signaling pathway as a possible target for senolytic strategy in tumor cells with therapy-induced senescence**

Hiroaki Ochiwa<sup>1,2</sup>, Makoto Iimori<sup>1</sup>, Hiroyuki Kitao<sup>1</sup> (<sup>1</sup>Dept. Mol. Can. Biol., Grad. Sch. Pharm. Sci, Kyushu Univ., <sup>2</sup>Discov. & Preclin. Res. Div., Taiho Pharm. Co., Ltd.)

抗がん剤により誘導された老化様癌細胞に対する TNF $\alpha$  シグナル経路を標的とした老化様細胞除去誘導

落岩 寛明<sup>1,2</sup>、飯森 真人<sup>1</sup>、北尾 洋之<sup>1</sup> (<sup>1</sup>九州大・院薬・抗がん剤育葉、<sup>2</sup>大鵬薬品工業 (株)・研究本部)

**J8-6 Epithelial tumorigenesis by super-competition via non-autonomous induction of autophagy**

Rina Nagata<sup>1</sup>, Shizue Ohsawa<sup>2</sup>, Tatsushi Igaki<sup>1</sup> (<sup>1</sup>Grad. Sch. of Biostudies, Kyoto Univ., <sup>2</sup>Grad. Sch. of Sci., Nagoya Univ.)

## 細胞非自律的なオートファジー誘導を介した細胞競合は腫瘍形成を促進する

永田 理奈<sup>1</sup>、大澤 志津江<sup>2</sup>、井垣 達吏<sup>1</sup> (<sup>1</sup>京都大・院・生命、<sup>2</sup>名古屋大・院理)

**Japanese Oral Sessions**

Room 11 Oct. 2 (Sat.) 14:45-16:00 J

**J16****Molecular-targeting therapy**

分子標的治療

Chairperson: Hideyuki Hayashi (Genomics Unit, Keio Cancer Ctr., Keio Univ. Sch. Med.)  
 座長: 林 秀幸 (慶應大・医・腫瘍セ・ゲノム医療ユニット)

**J16-1 HSF1 is a promising therapeutic target in adult T-cell leukemia**

Naoki Mori<sup>1</sup>, Chie Ishikawa<sup>1,2</sup> (<sup>1</sup>Dept. Microbiol. Oncol., Grad. Sch. Med., Univ. Ryukyu, <sup>2</sup>Transdisciplinary Res. Organ. Subtrop. Isl. Stud., Univ. Ryukyu)

## HSF1 は成人 T 細胞白血病の有望な治療標的である

森 直樹<sup>1</sup>、石川 千惠<sup>1,2</sup> (<sup>1</sup>琉球大・院医・微生物学・腫瘍学、<sup>2</sup>琉球大・亞熱帶島嶼科学超域研究推進機構)

**J16-2 Evaluation of biological characteristics in photoimmunotherapy-treated tumors using PET and MRI**

Kohei Nakajima<sup>1</sup>, Hironobu Yasui<sup>2</sup>, Kei Higashikawa<sup>2</sup>, Hideo Takakura<sup>1</sup>, Yasuhiro Magata<sup>3</sup>, Yuji Kuge<sup>3</sup>, Mikako Ogawa<sup>1</sup> (<sup>1</sup>Grad. Sch. Pharm. Sci., Hokkaido Univ., <sup>2</sup>Ctr. Inst. Isotope Sci., Hokkaido Univ., <sup>3</sup>pMPERC, Hamamatsu Univ. Sch. of Med.)

## 光免疫療法によって生じる腫瘍特異的变化に関する PET および MRI を用いた解析

中島 孝平<sup>1</sup>、安井 博宣<sup>2</sup>、東川 桂<sup>2</sup>、高倉 栄男<sup>1</sup>、間賀田 泰寛<sup>3</sup>、久下 裕司<sup>2</sup>、小川 美香子<sup>1</sup> (<sup>1</sup>北海道大・院薬、<sup>2</sup>北海道大・アイソトープセ、<sup>3</sup>浜松医大・光尖端医学教育研究セ)

**J16-3 Angiogenic inhibitor administration prior to immunotherapy improves the therapeutic effects**

Mineyoshi Sato<sup>1,2</sup>, Nako Maishi<sup>1</sup>, Yasuhiro Hida<sup>3</sup>, Aya Matsuda<sup>1</sup>, Satoshi Konno<sup>2</sup>, Kyoko Hida<sup>1</sup> (<sup>1</sup>Vascular Biol. Mol. Path., Grad. Sch. Dent. Med., Hokkaido Univ., <sup>2</sup>Dept. Resp. Med., Faculty of Med., Hokkaido Univ., <sup>3</sup>Dept. Cardiovascular Thoracic Surg, Faculty of Med., Hokkaido Univ.)

## 免疫療法に先行した血管新生阻害剤投与は治療効果を改善する

佐藤 峰嘉<sup>1,2</sup>、間石 奈湖<sup>1</sup>、樋田 泰浩<sup>3</sup>、松田 彩<sup>1</sup>、今野 哲<sup>2</sup>、樋田 京子<sup>1</sup> (<sup>1</sup>北海道大・院歯・血管生物分子病理学、<sup>2</sup>北海道大・院医・呼吸器内科学、<sup>3</sup>北海道大・院医・循環器・呼吸器外科学)

**J16-4 Glycogen synthase kinase (GSK)3 $\beta$  renders pancreatic cancer acquiring resistance to gemcitabine via STAT3 activation**

Takahiro Domoto<sup>1</sup>, Satoshi Takenaka<sup>2</sup>, Masahiro Uehara<sup>1</sup>, Dilireba Bolidong<sup>1</sup>, Tatsuhiko Furukawa<sup>3</sup>, Tomoharu Miyashita<sup>4</sup>, Toshinari Minamoto<sup>1</sup> (<sup>1</sup>Div. Transl. Clin. Oncol., Cancer Res. Inst., Kanazawa Univ., <sup>2</sup>Dept. Gastroenterol. Surg., Grad. Sch. Med., Kanazawa Univ., <sup>3</sup>Dept. Mol. Oncol., Grad. Sch. Med., Kagoshima Univ., <sup>4</sup>Dept. Surg. Oncol., Kanazawa Med. Univ.)

GSK3 $\beta$  は STAT3 の活性化を介して膵がんのゲムシタビン耐性獲得に寄与する

堂本 貴寛<sup>1</sup>、竹中 哲<sup>2</sup>、上原 将大<sup>1</sup>、ボリドン ディレバ<sup>1</sup>、古川 龍彦<sup>3</sup>、宮下 知治<sup>4</sup>、源 利成<sup>1</sup> (<sup>1</sup>金沢大・がん研 腫瘍制御、<sup>2</sup>金沢大・消化器・腫瘍・再生外科、<sup>3</sup>鹿児島大・医歯研 分子腫瘍学、<sup>4</sup>金沢大・一般・消化器外科)

**J16-5 AT9283 induces apoptosis via inhibition of Aurora kinase in imatinib sensitive and resistance CML cells**

Tomoya Takeda<sup>1</sup>, Masanobu Tsubaki<sup>1</sup>, Takuya Matsuda<sup>1</sup>, Yuuta Yamamoto<sup>1</sup>, Kana Kishimoto<sup>1</sup>, Shozo Nishida (Dept. Pharmacotherapy, Fac. of Pharm., Kindai Univ.)

## AT9283 によるイマチニブ感受性及び耐性細胞でのオーロラ阻害を介したアポトーシス誘導効果

武田 朋也、椿 正寛、松田 拓弥、山本 裕太、岸本 佳奈、西田 升三 (近畿大・薬・薬物治療学)

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Room 12 Oct. 2 (Sat.) 13:30-14:45

J14-11

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Brain tumor, primary bone tumor and skin cancer**  
臓器がんの基礎・診断・治療 (11):脳神経腫瘍・原発性骨腫瘍・皮膚がん

Chairperson: Takashi Sasayama (Dept. Neurosurgery, Kobe Univ. Grad. Sch. of Med.)

座長: 篠山 隆司 (神戸大・院医・外科・脳神経外科学分野)

**J14-11-1 Spatial heterogeneity of glioblastoma cells reveals sensitivity to NAD+ depletion at tumor edge**

Daisuke Yamashita (Dept. NeuroSurg., Ehime Univ. Grad. Sch. of Med.)

膠芽腫の空間的不均一性と腫瘍辺縁における NAD+ の役割  
山下 大介 (愛媛大・医・脳神経外科)

**J14-11-2 Acquisition of therapy-resistance through proneural-mesenchymal transition in glioblastoma**

Masahiko Kobayashi, Yongwei Jing, Atsushi Hirao (Cancer Res. Inst., Kanazawa Univ.)

悪性膠芽腫細胞における細胞系譜転換を介した治療抵抗性の獲得  
小林 昌彦、Yongwei Jing、平尾 敦 (金沢大・がん進展制御研)

**J14-11-3 Identification of novel target signalings of neurofibromatosis type I-associated tumors by functional integrated-omics**

Norie Araki, Daiki Kobayashi (Grad. Sch. of Med. Sci., Kumamoto Univ.)

統合オミクス解析による神経線維腫症 1 型に関連する腫瘍の新規治療ターゲットシグナルの同定と機能解析  
荒木 令江、小林 大樹 (熊本大・院生命研・腫瘍医学)

**J14-11-4 Osteosarcoma cells with lung metastatic potential strongly induce M2 like-polarized macrophages**

Hiroya Kondo<sup>1</sup>, Hiroshi Tazawa<sup>2,3</sup>, Miho Kure<sup>1</sup>, Tomohiro Fujiwara<sup>4</sup>, Toshiyuki Kunisada<sup>5</sup>, Toshifumi Ozaki<sup>1</sup>, Toshiyoshi Fujiwara<sup>2</sup> (<sup>1</sup>Dept. Orthopaedic Surg., Okayama Univ., Grad. Sch., <sup>2</sup>Dept. Gastroenterological Surg., Okayama Univ. Grad. Sch., <sup>3</sup>Ctr. for Innovative Clin. Med., Okayama Univ. Hosp., <sup>4</sup>Dept. Sports Med., Okayama Univ. Grad. Sch., <sup>5</sup>Dept. Med. Materials for Musculoskeletal Reconstruction, Okayama Univ. Grad. Sch.)

肺転移能を有する骨肉腫細胞は M2 様マクロファージへの分化を強力に誘導する

近藤 宏也<sup>1</sup>、田澤 大<sup>2,3</sup>、久禮 美穂<sup>1</sup>、藤原 智洋<sup>4</sup>、国定 俊之<sup>5</sup>、尾崎 敏文<sup>1</sup>、藤原 俊義<sup>2</sup> (<sup>1</sup>岡山大・院医・整形外科、<sup>2</sup>岡山大・院医・消化器外科、<sup>3</sup>岡山大・新医療研究開発セ、<sup>4</sup>岡山大・院医・運動器スポーツ医学講座、<sup>5</sup>岡山大・院医・運動器医療材料開発講座)

**J14-11-5 Effectiveness of ferroptosis in bone and soft tissue sarcomas**

Hironari Tamai, Toru Wakamatsu, Satoshi Takenaka (Dept. Orthopedic Surg.)

悪性骨軟部腫瘍治療における ferroptosis 有用性の検討  
田宮 大也、若松 透、竹中 聰 (整形外科)

**J14-11-6 Development of a skin tumor detection system using artificial intelligence**

Shunichi Jinnai<sup>1</sup>, Ryuji Hamamoto<sup>2</sup> (<sup>1</sup>Natl. Cancer Ctr. Hosp. Dept. Dermatologic Oncology, <sup>2</sup>Natl. Cancer Ctr. Res. Inst. Div. Med. AI Res.)

人工知能を用いた皮膚腫瘍判定システムの開発

陣内 駿一<sup>1</sup>、浜本 隆二<sup>2</sup> (<sup>1</sup>国立がん研セ・中央病院・皮膚腫瘍科、<sup>2</sup>国立がん研セ・医療 AI 研究開発分野)

### J16-6 Cellular senescence is additively induced in pancreatic cancer cell by FGFR4 inhibitor BLU9931

Norihiko Sasaki<sup>1</sup>, Fujiya Gomi<sup>2</sup>, Hisashi Yoshimura<sup>3</sup>, Masami Yamamoto<sup>3</sup>, Yoko Matsuda<sup>4</sup>, Masaki Michishita<sup>5</sup>, Hitoshi Hatakeyama<sup>6</sup>, Yoichi Kawano<sup>7</sup>, Yoko Itakura<sup>1</sup>, Masashi Toyoda<sup>1</sup>, Korc Murray<sup>8</sup>, Toshiyuki Ishiwata<sup>2</sup> (<sup>1</sup>Res. Team for Geriatric Medi. Tokyo Met. Inst. Gerontol., <sup>2</sup>Res. Team for Geriatric Pathol., Tokyo Met. Inst. Gerontol., <sup>3</sup>Dept. Applied Sci., Nippon Veterinary & Life Sci. Univ., <sup>4</sup>Dept. Path. & Host-Defense, Kagawa Univ., <sup>5</sup>Dept. Veterinary Pathol., Nippon Veterinary & Life Sci. Univ., <sup>6</sup>Dept. C. E. V. Med., Nippon Veterinary & Life Sci. Univ., <sup>7</sup>Dept. Gastrointestinal & Hepato-Biliary-Pancreatic Surg., Nippon Med. Sch., <sup>8</sup>Dept. Developmental & Cell Biol., Univ. California)

FGFR4 阻害剤の BLU9931 により、胰癌細胞で細胞老化が誘導される

佐々木 紀彦<sup>1</sup>、五味 不二也<sup>2</sup>、吉村 久志<sup>3</sup>、山本 昌美<sup>3</sup>、松田 陽子<sup>4</sup>、道下 正貴<sup>5</sup>、畠山 仁<sup>6</sup>、川野 陽一<sup>7</sup>、板倉 陽子<sup>1</sup>、豊田 雅士<sup>1</sup>、マレー コーク<sup>8</sup>、石渡 俊行<sup>2</sup> (<sup>1</sup>東京都健康長寿医療セ・研、<sup>2</sup>東京都健康長寿医療セ・研、<sup>3</sup>日本獣医生命科学大、<sup>4</sup>香川大・医医学科、<sup>5</sup>日本獣医学科大、<sup>6</sup>日本獣医生命科学大、<sup>7</sup>日本医大・千葉北総病院・外科、<sup>8</sup>カルフォルニア大・アーバイン校)

## Japanese Oral Sessions

Room 12 Oct. 2 (Sat.) 14:45-16:00

J

J14-12

**Cancer basic, diagnosis and treatment (12):  
Childhood cancer/AYA, other organs**  
 臓器がんの基礎・診断・治療 (12):小児がん・AYA／その他の臓器のがん

Chairperson: Takehiko Kamijo (Saitama Cancer Ctr. Res. Inst. Clin. Oncol.)

座長：上條 岳彦（埼玉がんセ・臨床腫瘍研）

**J14-12-1 Suppression of a target gene expression for Ewing sarcoma fusion protein by pyrrole imidazole polyamides**

Nanako Toyofuku<sup>1,3</sup>, Yuki Kida<sup>2</sup>, Takayoshi Watanabe<sup>1</sup>, Yoshinao Shinozaki<sup>2</sup>, Hiroki Nagase<sup>1,3</sup>, Atsushi Takatori<sup>1</sup> (<sup>1</sup>Div. Innov. Cancer Therap., Chiba Cancer Ctr. Res. Inst., <sup>2</sup>Div. Cancer Genetics, Chiba Cancer Ctr. Res. Inst., <sup>3</sup>Grad. Sch. Med. & Pharm. Sci., Univ. Chiba)

ピロール・イミダゾール・ポリアミドによるユーリング肉腫の融合タンパク質標的の遺伝子の発現制御

豊福 菜々子<sup>1,3</sup>、木田 裕貴<sup>2</sup>、渡部 隆義<sup>1</sup>、篠崎 喜脩<sup>2</sup>、永瀬 浩喜<sup>1,3</sup>、高取 敦志<sup>1</sup>（<sup>1</sup>千葉がんセ・研・がん先進、<sup>2</sup>千葉がんセ・研・がん遺伝、<sup>3</sup>千葉大・院医学薬学府）

**J14-12-2 Evaluation of clinical and genomic markers in high-risk neuroblastoma: Retrospective analysis of 95 JCCG-JNBSG cases**

Miki Ohira<sup>1,12</sup>, Masayuki Haruta<sup>1</sup>, Motoki Sugawara<sup>1</sup>, Hiroyuki Shichino<sup>2,12</sup>, Tomoro Hishiki<sup>3,12</sup>, Tetsuya Takimoto<sup>4,12</sup>, Atsuko Nakazawa<sup>5,12</sup>, Hajime Okita<sup>6,1</sup>, Hiroko Higashimoto<sup>7</sup>, Toshikazu Ushijima<sup>8</sup>, Hiroki Nagase<sup>9,12</sup>, Hitoshi Ichikawa<sup>8</sup>, Tatsuro Tajiri<sup>10,12</sup>, Akira Nakagawara<sup>11,12</sup>, Takehiko Kamijo<sup>1,12</sup> (<sup>1</sup>Res. Inst. Clin. Oncol., Saitama Cancer Ctr., <sup>2</sup>Natl. Ctr. for Global Health & Med., <sup>3</sup>Grad. Sch. Med., Chiba Univ., <sup>4</sup>Natl. Ctr. Child Health & Development, <sup>5</sup>Saitama Childrens Med. Ctr., <sup>6</sup>Keio Univ. Sch. of Med., <sup>7</sup>H. U. Group Res. Inst., <sup>8</sup>Natl. Cancer Ctr. Res. Inst., <sup>9</sup>Chiba Cancer Ctr. Res. Inst., <sup>10</sup>Kyoto Pref. Univ. Med., <sup>11</sup>Saga HIMAT, <sup>12</sup>Japan Childrens Cancer Group(JCCG) Neuroblastoma Committee(JNBSG))

高リスク神経芽腫臨床試験例における各種ゲノムマーカーの後方視的解析

大平 美紀<sup>1,12</sup>、春田 雅之<sup>1</sup>、菅原 大樹<sup>1</sup>、七野 浩之<sup>2,12</sup>、菱木 知郎<sup>3,12</sup>、瀧本 哲也<sup>4,12</sup>、中澤 温子<sup>5,12</sup>、大喜多 肇<sup>6,12</sup>、東本 浩子<sup>7</sup>、牛島 俊和<sup>8</sup>、永瀬 浩喜<sup>9,12</sup>、市川 仁<sup>8</sup>、田尻 達郎<sup>10,12</sup>、中川原 章<sup>11,12</sup>、上條 岳彦<sup>1,12</sup>（埼玉がんセ・臨床腫瘍研、<sup>2</sup>国立国際医療研セ・小児科、<sup>3</sup>千葉大・小児外科、<sup>4</sup>国立成育医療研セ・小児がんセ、<sup>5</sup>埼玉小児医療セ・臨床研究部、<sup>6</sup>慶應大・病理、<sup>7</sup>H. U. グループ中央研、<sup>8</sup>国立がん研セ・研、<sup>9</sup>千葉がんセ・研、<sup>10</sup>京都府立医大・小児外科、<sup>11</sup>九州国際重粒子線がん治療セ、<sup>12</sup>日本小児がん研究グループ・神経芽腫委員会）

**J14-12-3 Disease burden-dependent correlation of neuroblastoma minimal residual disease between bone marrow and peripheral blood**

Lin Kyawsan<sup>1</sup>, Suguru Uemura<sup>1</sup>, Khinkyaemon Thwin<sup>1</sup>, Toshiaki Ishida<sup>2</sup>, Nobuyuki Yamamoto<sup>3</sup>, Noriyuki Nishimura<sup>3</sup> (<sup>1</sup>Dept. Pediatr, Kobe Univ. Grad. Sch. Med., <sup>2</sup>Dept. Hematol & Oncol, Kobe Children Hosp., <sup>3</sup>Dept. Public Health, Kobe Univ. Grad. Sch. Health Sci.)

**J14-12-4 EZH2 controls neuroblastoma survival via actively regulates MYCN target genes without its methyltransferase activity**

Shoma Tsubota, Kenji Kadomatsu (Dept. Mol. Biol., Nagoya Univ. Grad. Sch. of Med.)

EZH2 はメチル基転移活性非依存的に MYCN 標的遺伝子発現を亢進し神経芽腫細胞の生存を制御する

坪田 庄真、門松 健治（名古屋大・院医・分子生物学）

**J14-12-5 Podoplanin promotes the tumor growth of canine malignant melanoma through Rho-associated kinase signal**

Masahiro Shinada<sup>1</sup>, Daiki Kato<sup>1</sup>, Namiko Ikeda<sup>1</sup>, Toshio Li<sup>1</sup>, Yuka Kodera<sup>1</sup>, Masaya Tsuboi<sup>2</sup>, James Chambers<sup>3</sup>, Kazuyuki Uchida<sup>3</sup>, Yukinari Kato<sup>4,5</sup>, Ryohei Nishimura<sup>1</sup>, Takayuki Nakagawa<sup>1</sup> (<sup>1</sup>Lab. Vet. Surg., Dept. Agri. Life Sci., The Univ. Tokyo, <sup>2</sup>Vet. Med. Ctr., The Univ. Tokyo, <sup>3</sup>Lab. Vet. Pathol., Dept. Agri. Life Sci., The Univ. Tokyo, <sup>4</sup>Dept. Antibody Drug Development, Tohoku Univ., Grad. Sch. Med., <sup>5</sup>New Industry Creation Hatchery Ctr., Tohoku Univ.)

ポドプランininはRho キナーゼ経路を活性化して犬悪性黒色腫の成長を促進する

品田 真央<sup>1</sup>、加藤 大貴<sup>1</sup>、池田 凡子<sup>1</sup>、李 捷生<sup>1</sup>、小寺 優佳、坪井 誠也<sup>2</sup>、チェンバーズ ジェームズ<sup>3</sup>、内田 和幸<sup>3</sup>、加藤 幸成<sup>4,5</sup>、西村 亮平<sup>1</sup>、中川 貴之<sup>1</sup>（<sup>1</sup>東京大・農・獣医外科、<sup>2</sup>東京大・動物医療セ、<sup>3</sup>東京大・農・獣医病理、<sup>4</sup>東北大・院医・抗体創薬、<sup>5</sup>東北大・未来科学）

## Japanese Oral Sessions

Room 13 Oct. 2 (Sat.) 13:30-14:45 J

J24/25/26

Epidemiology, information/informatics, cancer and society  
疫学・情報・がんと社会

Chairperson: Isao Oze (Aichi Cancer Ctr.)  
座長：尾瀬 功（愛知県がんセ）

J24/25/26-1

**Did cancer incidence trends in Japan change after the National Cancer Registry? Joinpoint regression analysis**

Kota Katanoda<sup>1</sup>, Megumi Hori<sup>1,2</sup>, Eiko Saito<sup>1</sup>, Tomohiro Matsuda<sup>1</sup>  
(<sup>1</sup>Ctr. Canc. Cont. Info. Serv., Natl. Canc. Ctr., Japan, <sup>2</sup>Sch. Nurs. Shizuoka Univ.)

全国がん登録の開始によりがん罹患トレンドは変化したか - Joinpoint 回帰分析

片野 耕太<sup>1</sup>、堀 芽久美<sup>1,2</sup>、齋藤 英子<sup>1</sup>、松田 智大<sup>1</sup> (<sup>1</sup>国立がん研セ・情報セ・統計部、<sup>2</sup>静岡県立大・看護)

J24/25/26-2

**Dietary fiber intake and risk of gastric cancer: the Japan Public Health Center-based prospective study**

Ryoko Katagiri, Atsushi Goto, Taichi Shimazu, Taiki Yamaji, Norie Sawada, Motoki Iwasaki, Manami Inoue, Shoichiro Tsugane (Epi. & Prev. Group, Ctr. for Public Health Sci., NCC)

食物繊維摂取量と胃がん罹患の関連：多目的コホート研究

片桐 誠子、後藤 温、島津 太一、山地 太樹、澤田 典絵、岩崎 基、井上 真奈美、津金 昌一郎（国立がん研セ・社会と健康研究セ）

J24/25/26-3

**Association of insulin-like growth factor (IGF) related molecules and incidence of colorectal cancer by site and gender**

Yasushi Adachi<sup>1,2</sup>, Masanori Nojima<sup>3</sup>, Mitsuuru Mori<sup>4</sup>, Ryogo Himori<sup>5</sup>, Toshiyuki Kubo<sup>1,2</sup>, Hiroo Yamano<sup>1</sup>, Hiroshi Nakase<sup>1</sup>, Takao Endo<sup>2</sup>, Yingsong Lin<sup>3</sup>, Kenji Wakai<sup>6</sup>, Akiko Tamakoshi<sup>7</sup> (<sup>1</sup>Dept.

Gastroenterol., Sapporo Med. Univ., Sch. Med., <sup>2</sup>Div. Gastroenterol., Sapporo Shirakaba-dai Hosp., <sup>3</sup>Inst. of Med. Sci., The Univ. of Tokyo, <sup>4</sup>Hokkaido Chitose Coll. of Rehabilitation, <sup>5</sup>Aichi Med. Univ. Dept. Public Health, <sup>6</sup>Dept. Preventive Med., Nagoya Univ., Sch. Med., <sup>7</sup>Dept. Public Helth, Hokkaido Univ. Sch. Med.)

IGF 関連因子と大腸がん罹患リスク、部位と性別による検討

足立 靖<sup>1,2</sup>、野島 正寛<sup>3</sup>、森 淳<sup>4</sup>、檜森 亮吾<sup>5</sup>、久保 俊之<sup>1,2</sup>、山野 泰穂<sup>1</sup>、仲瀬 裕志<sup>1</sup>、遠藤 高夫<sup>2</sup>、林 櫻松<sup>5</sup>、若井 建志<sup>6</sup>、玉腰 晴子<sup>7</sup> (<sup>1</sup>札幌医大・医・消化器内科、<sup>2</sup>札幌しらかば台病院・消化器科、<sup>3</sup>東京大・医科研、<sup>4</sup>北海道千歳リハビリテーション大、<sup>5</sup>愛知医大・医・公衆衛生、<sup>6</sup>名古屋大・医・予防医学、<sup>7</sup>北海道大・医・公衆衛生)

J24/25/26-4

**Early detection of colorectal cancers by miRNA expression analysis of cohort samples**

Asahi Hishida<sup>1</sup>, Hiroya Yamada<sup>2</sup>, Yoshinaga Okugawa<sup>3</sup>, Manabu Shiozawa<sup>4</sup>, Yohei Miyagi<sup>5</sup>, Yataro Daigo<sup>6</sup>, Yuji Toiyama<sup>3</sup>, Koji Tanaka<sup>7</sup> (<sup>1</sup>Dept. Prev. Med., Nagoya Univ. Grad. Sch. Med., <sup>2</sup>Dept. Hygiene, Fujita Health Univ. Sch. Med., <sup>3</sup>Dept. Gastrointest. Pediatr. Surg., Mie Univ. Grad. Sch. Med., <sup>4</sup>Dept. Gastrointest. Surg., Kanagawa Cancer Ctr. Hosp., <sup>5</sup>Mol. Pathol. Genet. Div., Kanagawa Cancer Ctr. Res. Inst., <sup>6</sup>Ctr. Antibody Vaccine Ther., IMSUT Hosp., <sup>7</sup>Dept. Surg., Iga City General Hosp.)

コホート検体のマイクロ RNA 発現解析による大腸癌早期診断研究  
菱田 朝陽<sup>1</sup>、山田 宏哉<sup>2</sup>、奥川 喜永<sup>3</sup>、塙澤 学<sup>4</sup>、宮城 洋平<sup>5</sup>、醍醐 弥太郎<sup>6</sup>、問山 裕二<sup>3</sup>、田中 光司<sup>7</sup> (<sup>1</sup>名古屋大・院医・予防医学、<sup>2</sup>藤田医大・医・衛生学、<sup>3</sup>三重大・院医・消化管・小児外科、<sup>4</sup>神奈川県がんセ・病院・消化管外科、<sup>5</sup>神奈川県がんセ・研・がん分子病態学部、<sup>6</sup>東京大・医科研・病院・抗体・ワクチンセ、<sup>7</sup>伊賀市立上野総合市民病院・外科)

J24/25/26-5

**Patient-Side Factors Affecting Cancer Treatment Decision and Selection**

Zen-U Hotta, Norie Kawahara, Ikuko Kase (Asia Cancer Forum)

がん治療決断及び選択における患者側諸要因

堀田 善宇、河原 ノリエ、加瀬 郁子（一般社団法人アジアがんフォーラム）

J24/25/26-6

**Identification of CNAs from RNA-Seq data**

Eisuke Iwamoto, Masashi Sanada, Takahiko Yasuda (Natl. Hosp. Org. Nagoya Med. Ctr. Clin. Res. Ctr.)

RNA-Seq データからの CNA の同定

岩本 栄介、真田 昌、安田 貴彦（名古屋医療セ・臨床研究セ）

## Japanese Oral Sessions

Room 13 Oct. 2 (Sat.) 14:45-16:00 J

J14-13

**Cancer basic, diagnosis and treatment (13): Head and neck cancer**  
臓器がんの基礎・診断・治療 (13):頭頸部がん

Chairperson: Yorihisa Imanishi (Int. Univ. Health Welfare, Sch. of Med./ Narita Hosp.)  
座長：今西 順久（国際医療福祉大・医／成田病院）

**J14-13-1 Epigenomic rewiring by episomal binding of Epstein-Barr virus genome in nasopharyngeal carcinoma**

Harue Mizokami<sup>1,2</sup>, Atsushi Okabe<sup>1</sup>, Masato Mima<sup>1,3</sup>, Satoru Kondo<sup>1,2</sup>, Masaki Fukuyo<sup>1</sup>, Bahityar R. Nawai<sup>1</sup>, Tomokazu Yoshizaki<sup>2</sup>, Atsushi Kaneda<sup>1</sup> (<sup>1</sup>Dept. Mol. Oncology, Grad. Sch. of Med., Chiba Univ., <sup>2</sup>Div. Otolaryngology-Head&Neck Surg., Kanazawa Univ., <sup>3</sup>Dept. Otolaryngology/Head&Neck Surg., Hamamatsu Univ. Sch. of Med.)

エピソーマル EBV ゲノムの結合が誘導する上咽頭癌のエピゲノム異常

溝上 晴喜<sup>1,2</sup>、岡部 篤史<sup>1</sup>、美馬 勝人<sup>1,3</sup>、近藤 悟<sup>1,2</sup>、福世 真樹<sup>1</sup>、繩井 バハテヤリラヒムトラ<sup>1</sup>、吉崎 智一<sup>2</sup>、金田 篤志<sup>1</sup> (<sup>1</sup>千葉大・院医学研究院分子腫瘍学、<sup>2</sup>金沢大・院耳鼻咽喉科・頭頸部外科、<sup>3</sup>浜松医大・耳鼻咽喉科・頭頸部外科)

**J14-13-2 Epigenetic reprogramming induced by YAP1 in head and neck squamous cell carcinoma (HNSCC)**

Kuniaki Sato<sup>1</sup>, Hirofumi Omori<sup>2</sup>, Takashi Nakagawa<sup>3</sup>, Muneyuki Masuda<sup>1</sup> (<sup>1</sup>Natl. Kyushu Ctr., Dept. Head&Neck Surg., <sup>2</sup>Univ. of British Columbia, Dept. Med. Genetics, <sup>3</sup>Kyushu Univ., Dept. Otolaryngol.)

YAP1 は頭頸部癌においてエピジェネティックリプログラミングを誘導する

佐藤 晋彰<sup>1</sup>、大森 裕文<sup>2</sup>、中川 尚志<sup>3</sup>、益田 宗幸<sup>1</sup> (<sup>1</sup>九州がんセ・頭頸科、<sup>2</sup>ブリティッシュコロンビア大・遺伝医学分野、<sup>3</sup>九州大・医・耳鼻咽喉科)

**J14-13-3 Loss of CYLD induces the resistance to cetuximab via inhibition of clathrin-mediated endocytosis of EGFR.**

Rin Liu<sup>1,2</sup>, Satoru Shinriki<sup>1</sup>, Manabu Maeshiro<sup>2</sup>, Hirohumi Jono<sup>3</sup>, Hideki Nakayama<sup>2</sup>, Hirotaka Matsui<sup>1</sup> (<sup>1</sup>Dept. Mol. Lab. Med., Kumamoto Univ., <sup>2</sup>Dept. Oral & Maxillofacial Surg. Kumamoto Univ., <sup>3</sup>Dept. Clin. Pharm. Sci., Kumamoto Univ.)

CYLD の発現低下は EGFR のクラスリン依存性エンドサイトーシスの阻害を介してセツキシマブ耐性を誘導する。

劉 隆<sup>1,2</sup>、神力 悟<sup>1</sup>、前城 学<sup>2</sup>、城野 博史<sup>3</sup>、中山 秀樹<sup>2</sup>、松井 啓隆<sup>1</sup> (<sup>1</sup>熊本大・医・臨床病態解析学、<sup>2</sup>熊本大・医・口外、<sup>3</sup>熊本大・医・臨床葉学科)

**J14-13-4 DLEU1 regulates expression and histone modification of ISG and promotes OSCC progression.**

Yui Hatanaka<sup>1,2</sup>, Takeshi Niiuma<sup>2</sup>, Koyo Nishiyama<sup>1</sup>, Hiroshi Kitajima<sup>2</sup>, Eiichiro Yamamoto<sup>2</sup>, Masahiro Kai<sup>2</sup>, Akira Yorozu<sup>2,3</sup>, Shohei Sekiguchi<sup>1,2</sup>, Kazuhiro Ogi<sup>1</sup>, Akihiro Miyazaki<sup>1</sup>, Hiromu Suzuki<sup>2</sup> (<sup>1</sup>Dept. Oral Surg., Sapporo Med. Univ., Sch. Med., <sup>2</sup>Dept. Mol. Biol., Sapporo Med. Univ., Sch. Med., <sup>3</sup>Dept. Otorhinolaryngology, Sapporo Med. Univ., Sch. Med.)

DLEU1 はインターフェロン関連遺伝子の発現とヒストン修飾を制御し口腔扁平上皮癌の進行を促進する

畠中 柚衣<sup>1,2</sup>、新沼 猛、西山 廣陽、北嶋 洋志<sup>2</sup>、山本 英一郎<sup>2</sup>、甲斐 正広<sup>2</sup>、萬 顕<sup>2,3</sup>、関口 翔平<sup>1,2</sup>、荻 和弘<sup>1</sup>、宮崎 晃亘<sup>1</sup>、鈴木 拓<sup>2</sup> (<sup>1</sup>札幌医大・医・口腔外科、<sup>2</sup>札幌医大・医・分子生物、<sup>3</sup>札幌医大・医・耳鼻咽喉科)

**J14-13-5 Analysis of AEBP1 in the microenvironment of head and neck squamous cell carcinoma**

Shohei Sekiguchi<sup>1,2</sup>, Akira Yorozu<sup>3</sup>, Eiichiro Yamamoto<sup>1,4</sup>, Takeshi Niiuma<sup>1</sup>, Akira Takasawa<sup>5</sup>, Gota Sudo<sup>1,4</sup>, Kazushige Koike<sup>2</sup>, Yui Hatanaka<sup>1,2</sup>, Ayano Yoshido<sup>1</sup>, Hiroshi Kitajima<sup>1</sup>, Masahiro Kai<sup>1</sup>, Makoto Osanai<sup>1</sup>, Kenichi Takano<sup>3</sup>, Akihiro Miyazaki<sup>1</sup>, Hiromu Suzuki<sup>1</sup> (<sup>1</sup>Dept. Mol. Biol., Sapporo Med. Univ. Sch. Med., <sup>2</sup>Dept. Oral Surg., Sapporo Med. Univ. Sch. Med., <sup>3</sup>Dept. Otolaryngol., Sapporo Med. Univ. Sch. Med., <sup>4</sup>Dept. Gastroenterol Hepatol., Sapporo Med. Univ. Sch. Med., <sup>5</sup>Dept. Path., Sapporo Med. Univ. Sch. Med.)

頭頸部扁平上皮がんの腫瘍微小環境における AEBP1 の解析

関口 翔平<sup>1,2</sup>、萬 顕<sup>3</sup>、山本 英一郎<sup>1,4</sup>、新沼 猛<sup>1</sup>、高澤 啓<sup>5</sup>、須藤 豪太<sup>1,4</sup>、小池 和茂<sup>2</sup>、畠中 柚衣<sup>1,2</sup>、吉戸 文乃<sup>1</sup>、北嶋 洋志<sup>1</sup>、甲斐 正広<sup>1</sup>、小山内 誠<sup>5</sup>、高野 賢一<sup>3</sup>、宮崎 晃亘<sup>2</sup>、鈴木 拓<sup>1</sup> (<sup>1</sup>札幌医大・医・分子生物、<sup>2</sup>札幌医大・医・口腔外科、<sup>3</sup>札幌医大・医・耳鼻咽喉科、<sup>4</sup>札幌医大・医・消化器内科、<sup>5</sup>札幌医大・医・病理 2)

**J14-13-6 ctDNA monitoring in Head and Neck Squamous Cell Carcinoma using case specific mutation**

Ryunosuke Kogo<sup>1</sup>, Tomomi Manako<sup>1</sup>, Takeshi Iwaya<sup>2</sup>, Satoshi Nishizuka<sup>3</sup>, Yasushi Sasaki<sup>4</sup>, Masashi Idogawa<sup>5</sup>, Takashi Tokino<sup>5</sup>, Takashi Nakagawa<sup>1</sup> (<sup>1</sup>Dept. Otorhinolaryngol., Kyushu Univ., <sup>2</sup>Dept. Surg., Iwate Med. Univ., <sup>3</sup>Div. Biomed. Res. & Dev., Inst. Biomed. Sci. Iwate Med. Univ., <sup>4</sup>Biol. Dept. Liberal Arts & Sci., Ctr. Med. Edu., Sapporo Med. Univ., <sup>5</sup>Dept. Med. Genome Sci., Res. Inst. Frontier Med., Sapporo Med. Univ.)

症例特異的変異を用いた頭頸部扁平上皮癌における ctDNA モニタリング

古後 龍之介<sup>1</sup>、真子 知美<sup>1</sup>、岩谷 岳<sup>2</sup>、西塙 哲<sup>3</sup>、佐々木 泰史<sup>4</sup>、井戸川 雅史<sup>5</sup>、時野 隆至<sup>5</sup>、中川 尚志<sup>1</sup> (<sup>1</sup>九州大・耳鼻咽喉科、<sup>2</sup>岩手医大・外科、<sup>3</sup>岩手医大・医歯薬総合研・医療開発研究部門、<sup>4</sup>札幌医大・生物・医療育成セ、<sup>5</sup>札幌医大・フロンティア医学・ゲノム医科学)

## Core Symposia

Room 14 Oct. 2 (Sat.) 13:30-16:00

E

CS4

### Precision disease modeling: organoid-driven cancer research オルガノイドが駆動するがん研究

Chairpersons: Toshiro Sato (Dept. Organoid Med., Keio Univ. Sch. Med.)  
Hiroshi Seno (Kyoto Univ., Dept. Gastroenterology & Hepatology)

座長：佐藤 俊朗（慶應大・医・オルガノイド医学）  
妹尾 浩（京都大・医・消化器内科）

Organoid technology has offered an unprecedented modality to mimic endogenous cell organization *ex vivo*. Moreover, recent advances in organoid research have enabled us to manipulate the genome of organoids, model tissue microenvironment, and drastically modify their behaviors. Various events during carcinogenesis can be visualized in real-time by combining organoids with recent developments in live imaging. Thus, in the cancer research community, the organoid is regarded as one of the most pivotal systems to model human cancers, understand cancer biology, screen drug efficacy, and investigate possibilities of precision medicine. However, to achieve those goals, several challenges remain to be further overcome in the current organoid system. In this core symposium, seven speakers will present their front-line data on organoid research. Through their unique approaches and points of view, we would like to discuss organoid research's current status and future perspective to develop novel therapeutic strategies against cancers.

#### CS4-1 Defining tumor histological evolution using organoid technology

Toshiro Sato, Masayuki Fujii (Dept. Organoid Med., Keio Univ. Sch. Med.)

##### オルガノイドによる腫瘍組織進化の解明

佐藤 俊朗、藤井 正幸（慶應大・医・オルガノイド医学）

#### CS4-2 Analysis of pancreateo-biliary cancer development using mice and organoids

Hiroshi Seno, Munemasa Nagao, Yuichi Fukunaga, Satoshi Ogawa, Takahisa Maruno, Akihisa Fukuda (Kyoto Univ., Grad. Sch. Med., Dept. Gastroenterol & Hepatol.)

##### マウスとオルガノイドを併用した胆膵発がん過程の解析

妹尾 浩、長尾 宗政、福永 裕一、小川 智、丸野 貴久、福田 晃久（京都大・医・消化器内科）

#### CS4-3 Application of organoids to breast cancer research

Yohei Shimono<sup>1,2,3</sup>, Tatsunori Nishimura<sup>4</sup>, Seishi Kono<sup>5</sup>, Naoki Shibuya<sup>6</sup>, Takanori Hayashi<sup>1</sup>, Hisano Yanagi<sup>1,7</sup>, Takashi Watanabe<sup>1</sup>, Masao Maeda<sup>1</sup>, Yoshihiro Kakeji<sup>6</sup>, Kenji Kawada<sup>7</sup>, Naoya Asai<sup>8</sup>, Shintaro Takao<sup>9</sup>, Hironobu Minami<sup>3</sup>, Yuko Kijima<sup>9</sup>, Motoshi Suzuki<sup>10</sup>, Noriko Gotoh<sup>1</sup> (<sup>1</sup>Dept. Biochem., Fujita Health Univ. Sch. Med., <sup>2</sup>Div. Mol. Cell. Biol., Kobe Univ. Grad. Sch. Med., <sup>3</sup>Div. Med. Oncology/Hematology, Kobe Univ., <sup>4</sup>Div. Cancer Cell. Biol., Cancer Res. Inst. Kanazawa Univ., <sup>5</sup>Div. Breast Endocrine Surg., Kobe Univ. Grad. Sch. Med., <sup>6</sup>Div. Gastrointestinal Surg., Kobe Univ. Grad. Sch. Med., <sup>7</sup>Dept. Med. Oncology, Fujita Health Univ., <sup>8</sup>Dept. Path., Fujita Health Univ. Sch. Med., <sup>9</sup>Dept. Breast Surg., Fujita Health Univ. Sch. Med., <sup>10</sup>Dept. Mol. Oncology, Fujita Health Univ. Sch. Med.)

##### オルガノイドの乳がん研究への展開

下野 洋平<sup>1,2,3</sup>、西村 建徳<sup>4</sup>、河野 誠之<sup>5</sup>、渋谷 尚樹<sup>6</sup>、林 孝典<sup>1</sup>、柳 久乃<sup>1,7</sup>、渡辺 崇<sup>1</sup>、前田 真男<sup>1</sup>、掛地 吉弘<sup>6</sup>、河田 健司<sup>7</sup>、浅井 直也<sup>8</sup>、高尾 信太郎<sup>5</sup>、南 博信<sup>3</sup>、喜島 祐子<sup>9</sup>、鈴木 元<sup>10</sup>、後藤 典子<sup>4</sup>（<sup>1</sup>藤田医大・医・生化学、<sup>2</sup>神戸大・院医・分子細胞生物学、<sup>3</sup>神戸大・院医・腫瘍・血液内科、<sup>4</sup>金沢大・がん研・分子病態、<sup>5</sup>神戸大・院医・乳腺内分泌外科学、<sup>6</sup>神戸大・院医・食道胃腸外科学、<sup>7</sup>藤田医大・医・臨床腫瘍科、<sup>8</sup>藤田医大・医・病理学、<sup>9</sup>藤田医大・医・乳腺外科学、<sup>10</sup>藤田医大・医・分子腫瘍）

#### CS4-4 Tumor-derived organoids to study gastrointestinal cancer metastasis

Masanobu Oshima<sup>1,2</sup> (<sup>1</sup>Div. Genet., Cancer Res. Inst., Kanazawa Univ., <sup>2</sup>Nano Life Sci. Inst.(Nano-LSI), Kanazawa Univ.)

##### 腫瘍由来オルガノイドを用いた消化器がん転移研究

大島 正伸<sup>1,2</sup>（金沢大・がん研・腫瘍遺伝学、<sup>2</sup>金沢大・ナノ研）

#### CS4-5 Identifying new therapeutic targets by using mouse models and organoids

Yoku Hayakawa, Masahiro Hata, Mayo Tsuboi, Kazuhiko Koike (Dept. Gastroenterology, The Univ. of Tokyo)

##### マウスモデルとオルガノイドを用いた胃癌新規治療標的の導出

早河 翼、畠 昌宏、坪井 真代、小池 和彦（東京大・消化器内科）

#### CS4-6 Stromal SOX2 Upregulation Promotes Tumorigenesis through an SFRP1/2-Expressing CAF Population in colorectal cancer

Hiroaki Kasashima<sup>1,2,3,4,5</sup>, Jorge Moscat<sup>4,5</sup>, Maria T. Diazmeco<sup>4,5</sup>, Yuki Nakanishi<sup>5</sup>, Yotaro Kudo<sup>5</sup>, Masakazu Yashiro<sup>2</sup>, Masaichi Ohira<sup>1</sup> (<sup>1</sup>Dept. Gastroenterological Surg., Osaka City Univ. of Med., <sup>2</sup>Mol. Oncology & Therap., Osaka City Univ. of Med., <sup>3</sup>Dept. Surg., Kashihara Municipal Hosp., <sup>4</sup>Dept. Path & Lab. Med., Weill Cornell Med., <sup>5</sup>Sanford Burnham Prebys Med. Discovery Inst., San Diego)

##### PKC $\zeta$ 欠失により誘導されるSOX2-SFRP1/2陽性癌関連線維芽細胞集団の同定と機能解析

笠島 裕明<sup>1,2,3,4,5</sup>, Jorge Moscat<sup>4,5</sup>, Maria T. Diazmeco<sup>4,5</sup>、中西 祐貴<sup>5</sup>、工藤 洋太郎<sup>5</sup>、八代 正和<sup>2</sup>、大平 雅一<sup>1</sup>（<sup>1</sup>大阪市立大・院消化器外科、<sup>2</sup>大阪市立大・院癌分子病態制御学、<sup>3</sup>市立柏原病院外科、<sup>4</sup>コ一ネル医大・病理部、<sup>5</sup>バーナム研）

#### CS4-7 Intraductal Transplantation Models of Pancreatic Cancer Patient-Derived Organoids Reveal Molecular Subtypes Switching

Koji Miyabayashi, Kazuhiko Koike (Grad. Sch. of Med. Dept. Gastroenterology, Univ. of Tokyo)

##### ヒト膵癌患者オルガノイドの胆管内移植モデルは分子サブタイプのダイナミックな変化の解析に有用である

宮林 弘至、小池 和彦（東京大・医附属病院・消化器内科）

## Symposia

Room 15 Oct. 2 (Sat.) 13:30-16:00

E

S22

**Relationship between clonal hematopoiesis and hematological malignancies/cardiovascular diseases/solid tumors**  
 クローン性造血と造血器腫瘍、心血管疾患、固形癌の関係性

 Chairpersons: Toshio Kitamura (The Inst. of Med. Sci., The Univ. of Tokyo)  
 Atsushi Iwama (The Inst. of Med. Sci., The Univ. of Tokyo)

 座長: 北村 俊雄 (東京大・医科研)  
 岩間 厚志 (東京大・医科研)

In recent years, clonal hematopoiesis of indeterminate potential (CHIP or CH) is in the spotlight because CHIP is associated with hematological malignancies as well as cardiovascular diseases (CVD), diabetes mellitus and solid tumors and predicts shorter life expectancies. A genetic mutation is occasionally introduced into hematopoietic stem cells (HSCs) and some of them would expand by gaining fitness advantages after a long period. Therefore, CHIP increases as people age and more than 10% of elderly people older than 65 harbor visible CHIP clones (>2% variant allele frequencies). It has been recently reported that other normal tissues also harbor mutations. Interestingly, while CHIP mutations are mainly found in epigenetic factors including DNMT3A, TET2 and ASXL1 and splicing factors, the profiles of the mutations identified in other tissues are different from that of CHIP and mainly include oncogenes and signal transduction molecules. Currently, CHIP attracts much attention from the researchers but CHIP research is just beginning. In this symposium, we invite 6 speakers who will present interesting works related to CHIP including TET2 mutation and T cell lymphoma/lung carcinoma, gene mutations and copy number alterations in CHIP, CHIP and solid tumor, CHIP and CVD, CHIP and pulmonary hypertension as well as HSC regulation by antigen-specific T cells.

**S22-1 Tet2-deficient immune cells serve as niches to promote cancer progression: T-cell lymphoma and lung cancer models**

Mamiko Sakatayanagimoto, Manabu Fujisawa, Nguyen Yen, Shigeru Chiba (Dept. Hematol., Facult. Med., Univ. Tsukuba.)

**Tet2欠失免疫細胞はがん発症を促進するニッチとして働く:T細胞  
リンパ腫および肺がんモデルの解析**

 坂田 (柳元) 麻実子、藤澤 学、イエン ヌエン、千葉 滋 (筑波大・  
医学医療系・血液内科)

**S22-2 Integrated analysis of single-nucleotide variants and copy-number alterations in clonal hematopoiesis**

 Ryunosuke Saiki<sup>1</sup>, Yukihide Momozawa<sup>2</sup>, Yasuhito Nannya<sup>1</sup>, Masahiro Nakagawa<sup>1,3</sup>, Yotaro Ochi<sup>1</sup>, Tetsuchi Yoshizato<sup>1</sup>, Yuichi Shiraishi<sup>1</sup>, Hiroko Tanaka<sup>5</sup>, Atsushi Niida<sup>6</sup>, Seiya Imoto<sup>6</sup>, Koichi Matsuda<sup>7</sup>, Yoshinori Murakami<sup>6</sup>, Shuichi Matsuda<sup>8</sup>, Satoru Miyano<sup>5</sup>, Hideki Makishima<sup>4</sup>, Seishi Ogawa<sup>1,3,9</sup> (Path. & Tumor Biol., Kyoto Univ., Kyoto, Japan, <sup>2</sup>RIKEN Ctr. for IMS, Yokohama, Japan, <sup>3</sup>WPI-ASHIBI, Kyoto Univ., Kyoto, Japan, <sup>4</sup>Natl. Cancer Ctr. Res. Inst., Tokyo, Japan, <sup>5</sup>Tokyo Med. & Dent. Univ., Tokyo, Japan, <sup>6</sup>Inst. of Med. Sci., Univ. of Tokyo, Tokyo, Japan, <sup>7</sup>GSFS, Univ. of Tokyo, Tokyo, Japan, <sup>8</sup>Orthopaedic Surg., Kyoto Univ., Kyoto, Japan, <sup>9</sup>Karolinska Inst., Stockholm, Sweden)

**クローン性造血における遺伝子変異とコピー数異常の統合解析**

 佐伯 龍之介<sup>1</sup>、桃沢 幸秀<sup>2</sup>、南谷 泰仁<sup>1</sup>、中川 正宏<sup>1,3</sup>、越智 陽太郎<sup>1</sup>、吉里 哲一<sup>1</sup>、白石 友一<sup>4</sup>、田中 洋子<sup>5</sup>、新井田 厚司<sup>6</sup>、井元 清哉<sup>6</sup>、松田 浩一<sup>7</sup>、村上 善則<sup>6</sup>、松田 秀一<sup>8</sup>、宮野 悟<sup>5</sup>、牧島 秀樹<sup>1</sup>、小川 誠司<sup>1,3,9</sup> (京都大・腫瘍生物学講座・<sup>2</sup>理研・生命医科学研究セ、<sup>3</sup>京都大・ヒト生物学高等研究拠点、<sup>4</sup>国立がん研セ・細胞情報学、<sup>5</sup>東京医歯大・M&D データ科学セ、<sup>6</sup>東京大・医科研、<sup>7</sup>東京大・新領域、<sup>8</sup>京都大・整形外科、<sup>9</sup>カロリスカ研)

**S22-3 Clonal Hematopoiesis and Solid Tumor**

 Xiaoxiao Liu<sup>1</sup>, Naru Sato<sup>2</sup>, Toshio Kitamura<sup>2</sup>, Susumu Goyama<sup>1</sup> (<sup>1</sup>Div. Mol. Oncology, CBMS, Frontier Sci., The Univ. of Tokyo, <sup>2</sup>Div. Cell. Therapy, IMSUT, The Univ. of Tokyo)

**クローン造血と固形腫瘍**

 劉瀟瀟、佐藤 成<sup>2</sup>、北村 俊雄<sup>2</sup>、合山 進<sup>1</sup> (東京大・新領域・先進分子腫瘍学分野、<sup>2</sup>東京大・医科研・細胞療法分野)

**S22-4 Regulation of hematopoietic stem cell clones by antigen-specific T cells**

Masayuki Yamashita, Atsushi Iwama (Div. Stem Cell &amp; Mol. Med., Inst. Med. Sci., Univ. Tokyo)

**抗原特異的T細胞による造血幹細胞クローンの制御**

山下 真幸、岩間 厚志 (東京大・医科研・幹細胞分子医学)

**S22-5 Clonal Hematopoiesis and Cardiovascular Diseases**

 Naru Sato<sup>1</sup>, Xiaoxiao Liu<sup>2</sup>, Susumu Goyama<sup>2</sup>, Toshio Kitamura<sup>1</sup> (<sup>1</sup>Div. Cell. Therapy, IMSUT, The Univ. of Tokyo, <sup>2</sup>Div. Mol. Oncol, CBMS, Frontier Sci., The Univ. of Tokyo)

**クローン性造血と心血管疾患**

 佐藤 成<sup>1</sup>、劉瀟瀟<sup>2</sup>、合山 進<sup>2</sup>、北村 俊雄<sup>1</sup> (東京大・医科研・細胞療法分野、<sup>2</sup>東京大・新領域・先進分子腫瘍学分野)

**S22-6 Clonal hematopoiesis (CH) with JAK2-V617F mutation promotes pulmonary hypertension (PH) through ALK1 (Acvrl1)**

 Kazuhiko Ikeda<sup>1</sup>, Tomofumi Misaka<sup>2</sup>, Yusuke Kimishima<sup>2</sup>, Tetsuro Yokokawa<sup>2</sup>, Keiji Minakawa<sup>1</sup>, Koki Ueda<sup>1</sup>, Atsushi Iwama<sup>3</sup>, Yasuchika Takeishi<sup>2</sup> (<sup>1</sup>Dept. Transfus. & Transpl. Immunol, Fukushima Med. Univ., Sch. Med., <sup>2</sup>Dept. Cardiovascular Med., Fukushima Med. Univ., Sch. Med., <sup>3</sup>Inst. of Med. Sci., The Univ. of Tokyo)

**JAK2-V617F 変異を伴うクローン性造血は ALK1 (Acvrl1) を介して肺高血圧を促進する**

 池田 和彦<sup>1</sup>、三阪 智史<sup>2</sup>、君島 勇輔<sup>2</sup>、横川 哲朗<sup>2</sup>、皆川 敬治<sup>1</sup>、植田 航希<sup>1</sup>、岩間 厚志<sup>3</sup>、竹石 恭知<sup>2</sup> (福島医大・医・輸血・移植免疫学、<sup>2</sup>福島医大・医・循環器内科学、<sup>3</sup>東京大・医科研・幹細胞医学分野)

INFORMATION

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## Special Programs

Room 16 Oct. 2 (Sat.) 13:30-15:30 J

SP7

### The role of hybrid researchers in Incoming cancer research

がん研究におけるHybrid研究者の役割

Chairpersons: Nobuyuki Onishi (Life Sci. Res. Ctr., Tech. Res. Lab., SHIMADZU CORPORATION / Div. Gene Regulation, Inst. for Advanced Med. Res. (IAMR), Keio Univ. Sch. of Med.)  
Daisuke Morishita (Chief Scientific Officer, Chordia Therapeutics Inc./Professor in Kumamoto Univ./Associate professor in Kyoto Univ.)

座長：大西 伸幸 ((株)島津製作所・基盤技術研・ライフサイエンス研／慶應大・医・先端研・遺伝子制御研究部門)

森下 大輔 (Chordia Therapeutics 株式会社／熊本大／京都大)

Since 2017, this special program has been held to illuminate the future of cancer research by encouraging interaction and discussion among all participants, including speakers and audiences. From just one-time only meeting, the symposium has grown into a regular program with participation of researchers from a wide range of backgrounds.

This year, we entitle "Role of Hybrid Researchers in Cancer Research" and put our thoughts in the term "Hybrid" as an interdisciplinary combination among different research backgrounds and expansion of collaboration across academia, industry and government. On the basis of the meaning "Hybrid", the purpose of this program is to (1) discuss a vision of future cancer research to deliver life-changing medicines, (2) understand and reevaluate significant impacts of the academia-industry collaboration and (3) foster future career development for young researchers. To achieve these goals, we will invite researchers who have demonstrated significant contributions not only in basic research but also in various applied research and regulatory science.

We do believe that this symposium will be an opportunity to provide new insights to your own research life.

SP7-1 Hikari Yoshitane (Circadian Clock Project, Tokyo Metropolitan Institute of Medical Science)

吉種 光 (東京都医学総合研究所体内時計プロジェクト)

SP7-2 Jun Seita (Lab. for Integrative Genomics, RIKEN Ctr. for Integrative Med. Sci.)

清田 純 (理研・生命医科学研究セ・統合ゲノミクス研究チーム／理研・医学イノベーションハブ推進プログラム 健康医療データAI解析標準化ユニット)

SP7-3 Toru Komatsu (Grad. Sch. of Pharm. Sci., The Univ. of Tokyo)  
小松 徹 (東京大・院薬／東京大・院薬・薬品代謝化学教室)

SP7-4 Akiko Takahashi (Project for Cell. Senescence, Cancer Inst., Japanese Foundation for Cancer Res.)

高橋 晓子 ((公財)がん研・研・がん生物部)

SP7-5 Shinji Fukuda (Inst. for Advanced BioSci., Keio Univ.)  
福田 真嗣 (慶應大・先端生命科学研)

SP7-6 Jun Sakurai (Okayama Univ.)  
櫻井 淳 (岡山大・病院・新医療研究開発セ)

## Special Programs

Room 16 Oct. 2 (Sat.) 15:30-17:00 J

SP9

### Future of young cancer researchers connected by latest XR (crossed reality)

最新のXR(クロス・リアリティ)がつなぐ若手がん研究者の近未来

Chairpersons: Takeya Adachi (President, UJA/ Keio Frontier Research & Education Collaborative Square (K-FRECS) at Tonomachi, Keio University)

Shuji Kitahara (Tokyo Women's Med. Univ./ Waseda Univ.)

Motoshi Hayano (Dept. of Neuropsychiatry, Keio Univ. Sch. of Med./Dept. of System Design Engineering, Keio Univ. Fac. of Sci. and Technology)

座長：足立 剛也 (一般社団法人海外日本人研究者ネットワーク (UJA) 会長／慶應義塾大学殿町先端研究連携スクエア特任講師)

北原 秀治 (東京女子医大／早稲田大)

早野 元詞 (慶應大・医・精神科学教室／慶應大・理工・システムデザイン工学科)

The importance of international collaborations is indisputable, such as international clinical trials that enable multiracial demonstrations and multiple case registries, and the introduction of findings that are not sufficiently advanced in Japan. It has become a global trend to have "anti-disciplinary thinking" to construct projects. However, there are restrictions on cross-border movement under the current circumstances with COVID-19 pandemic, and it is a hurdle to start online discussions for concrete joint research with people you have never met before in different languages and fields.

One solution is a cross-reality (XR) system that combines virtual reality (VR) space, a communication tool adapted to the post-COVID-19 era, and a network of Japanese researchers active overseas. Interacting with overseas researchers who can collaborate in the same Japanese language in an environment where one has a sense of one's own presence and a sense of the reality of one's surroundings is attracting attention as the first step toward true international collaboration. By organically linking and utilizing both, not only research but also social impact and ripple effects can be expected. In this symposium, we would like to introduce how the XR system developed for academia is related to science, and make this a session to think about the new way of science with young cancer researchers.

SP9-1 **What is the United Japanese Researchers Around the World (UJA)?**

Aya Matsui<sup>1,2</sup> (<sup>1</sup>Harvard Medical School, <sup>2</sup>Massachusetts General Hospital)

海外日本人研究者ネットワーク(UJA)とは？

松居 彩<sup>1,2</sup> (<sup>1</sup>ハーバード医科大学院、<sup>2</sup>マサチューセッツ総合病院)

SP9-2 **Investigation of UJA survey 2020: The fact of Japanese-style study & work abroad**

Kohei Homma<sup>1,2</sup>, Yutaka Kuroki<sup>1</sup>, Kohei Koshida<sup>1</sup>, Shun Ikemoto<sup>3</sup>, Tadayuki Akagi<sup>4,5</sup>, Kazuhito Morioka<sup>6,7</sup>, Takeya Adachi<sup>8,9</sup>, Yukako Ono<sup>1,10</sup> (<sup>1</sup>UJA WG6, <sup>2</sup>Keio University School of Medicine, <sup>3</sup>JAIC Co. Ltd., <sup>4</sup>UJA WG4, <sup>5</sup>Faculty of Engineering, Fukuoka Institute Technology, <sup>6</sup>UJA, <sup>7</sup>University of California, San Francisco, <sup>8</sup>President, UJA, <sup>9</sup>Keio Frontier Research & Education Collaborative Square (K-FRECS) at Tonomachi, Keio University, <sup>10</sup>Keio University Faculty of Business and Commerce)

留学キャリアの意味を考察する～UJA アンケート 2020 解析から～  
本間 耕平<sup>1,2</sup>、黒木 裕鷹<sup>1</sup>、越田 航平<sup>1</sup>、池本 駿<sup>3</sup>、赤木 紀之<sup>4,5</sup>、森岡 和仁<sup>6,7</sup>、足立 剛也<sup>8,9</sup>、大野 由香子<sup>1,10</sup> (<sup>1</sup>UJA 学術 WG、<sup>2</sup>慶應義塾大学医学部、<sup>3</sup>株式会社ジエイック、<sup>4</sup>UJA 編集 WG、<sup>5</sup>福岡工業大学工学部、<sup>6</sup>UJA 外務 WG、<sup>7</sup>University of California, San Francisco、<sup>8</sup>UJA 会長、<sup>9</sup>慶應義塾大学殿町先端研究教育連携スクエア、<sup>10</sup>慶應義塾大学商学部)

SP9-3 **A Case study of collaborative research promotion using XR: Scienome XR Innovation Hub (SXR)**

Motoshi Hayano<sup>1,2</sup> (<sup>1</sup>Department of Neuropsychiatry, Keio University School of Medicine, <sup>2</sup>Department of System Design Engineering, Keio University Faculty of Science and Technology)

**XR を用いた共同研究推進の事例紹介 : Scienome XR Innovation Hub (SXR)**

早野 元詞<sup>1,2</sup> (<sup>1</sup>慶應義塾大学医学部精神科学教室、<sup>2</sup>慶應義塾大学理工学部システムデザイン工学科)

**SP9-4 Genetic modification in the body to make friends with cancer cells?!****Dreaming of cancer treatment in 100 years**

Taruho Kuroda<sup>1</sup>, Yuta Hattori<sup>2</sup>, Ayano Kagami<sup>3</sup>, Eriko Fukuda<sup>4</sup>, Goshu Tamura<sup>5</sup> (<sup>1</sup>LEO Pharma K.K. LEO Science & Tech Hub, <sup>2</sup>Tokyo Metropolitan Kokusai High School, <sup>3</sup>CIC Japan G.K., <sup>4</sup>The National Institute of Advanced Industrial Science and Technology, Cellular and Molecular Biotechnology Research Institute, <sup>5</sup>City University of Hong Kong)

体内で遺伝子改変をし、がん細胞と友達になる？！100年後のがん治療を夢見て

黒田 垂歩<sup>1</sup>、服部 悠大<sup>2</sup>、加々美 綾乃<sup>3</sup>、福田 枝里子<sup>4</sup>、田村 豪主<sup>5</sup>（<sup>1</sup>レオファーマ株式会社 レオ・サイエンス＆テックハブ、<sup>2</sup>東京都立国際高等学校、<sup>3</sup>CIC Japan 合同会社、<sup>4</sup>国立研究開発法人産業技術総合研究所 細胞分子工学研究部門、<sup>5</sup>香港城市大學）