

# Day 3

September 28 (Saturday)

Room 3 Sep. 28 (Sat.) 8:00-8:50 J

### ML11 Morning Lectures 11

Chairperson: Yoshio Miki (Dept. Mol. Genet., MRI, TMDU.)  
座長: 三木 義男 (東京医歯大)

- ML11** **The application of high-throughput functional evaluation on variants of unknown significance to cancer genome medicine**  
Shinji Kohsaka (Div. Cell. Signaling, Natl. Cancer Ctr. Res. Institute.)  
ハイスループット遺伝子機能解析法のがんゲノム医療への応用  
高阪 真路 (国立がん研セ・研・細胞情報学)

Room 4 Sep. 28 (Sat.) 8:00-8:50 J

### ML12 Morning Lectures 12

Chairperson: Tomoichiro Miyoshi (Grad. Sch. of Biostudies Kyoto Univ.)  
座長: 三好 知一郎 (京大・院生命)

- ML12** **How to write an attractive paper in English?**  
Kohei Miyazono (Dept. Mol. Pathol., Grad. Sch. Med., Univ. Tokyo)  
魅力ある英文論文を書くために  
宮園 浩平 (東京大・医・分子病理)

Room 5 Sep. 28 (Sat.) 8:00-8:50 J

### ML13 Morning Lectures 13

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)

- ML13** **DNA methylation in health and disease**  
Hiroyuki Sasaki (Med. Inst. Bioreg., Kyushu Univ.)  
DNA メチル化と疾患  
佐々木 裕之 (九州大・生医研)

Room 6 Sep. 28 (Sat.) 8:00-8:50 J

### ML14 Morning Lectures 14

Chairperson: Makoto Noda (Kyoto Univ.)  
座長: 野田 亮 (京大)

- ML14** **Three dimensional culture of primary cancer cells as a model of studying heterogeneity and plasticity in cancer**  
Masahiro Inoue, Jumpei Kondo (Dept. Clin. Bioresource. R&D, Kyoto Univ. Sch. Med.)  
がんの多様性・可塑性と三次元初代培養モデル  
井上 正宏、近藤 純平 (京大・医・クリニカルバイオリソース R&D)

Room 7 Sep. 28 (Sat.) 8:00-8:50 J

### ML15 Morning Lectures 15

Chairperson: Miyako Takahashi (Natl. Cancer Ctr., Ctr. for Cancer Control & Information Services)  
座長: 高橋 都 (国立がん研セ・がん対策情報セ・がんサバイバーシップ支援部)

- ML15** **Cancer survivorship: Patient participation in clinical decision making and research**  
Chikako Shimizu (Comprehensive Cancer Ctr., Natl. Ctr. for Global Health & Med.)  
がんサバイバーシップ: 臨床・研究における患者参加  
清水 千佳子 (国立国際医療研セ・がん総合診療セ)

Room 8 Sep. 28 (Sat.) 8:00-8:50 J

### ML16 Morning Lectures 16

Chairperson: Satoru Tsuneto (Dept. Human Health Sci., Grad. Sch. of Med., Kyoto Univ.)  
座長: 恒藤 暁 (京都大・院医・人間健康科学)

- ML16** **A novel developmental point of analgesic drug to relief from neuropathic pain**  
Hideo Shindou<sup>1,2,3</sup> (<sup>1</sup>Dept. Lipid Signal, NCGM, <sup>2</sup>Dept. Lipid Sci., Univ. Tokyo, <sup>3</sup>AMED)  
神経障害性疼痛の緩和を目指した新たな鎮痛薬開発ポイント  
進藤 英雄<sup>1,2,3</sup> (<sup>1</sup>国立国際医療セ・脂質シグナル, <sup>2</sup>東京大・院医・脂質医科連携, <sup>3</sup>AMED)

Room 9 Sep. 28 (Sat.) 8:00-8:50 J

### ML17 Morning Lectures 17

Chairperson: Keiko Iwaisako (Faculty of Life & Med. Sci. Doshisha Univ.)  
座長: 祝迫 恵子 (同志社大・生命医)

- ML17** **Liver transplantation for malignancies**  
Kojiro Taura, Toshimi Kaido, Shinji Uemoto (Dept. Surg., Kyoto Univ.)  
癌治療としての肝移植  
田浦 康二郎、海道 利実、上本 伸二 (京都大・医・肝胆膵・移植外科)

Room 10 Sep. 28 (Sat.) 8:00-8:50 J

### ML18 Morning Lectures 18

Chairperson: Rieko Ohki (Lab. of Fundamental Oncology Natl. Cancer Ctr. Res. Inst.)  
座長: 大木 理恵子 (国立がん研セ・基礎腫瘍学ユニット)

- ML18** **Next-generation proteomics unveils a global landscape of cancer metabolism: Discovery of the "SECOND" Warburg effect**  
Keiichi Nakayama (Dept. Mol. Cell. Biol., Med. Inst. Bioreg., Kyushu Univ.)  
次世代プロテオミクスが拓くがん研究の新時代: 第二のワールブルグ効果の発見  
中山 敬一 (九州大・生医研・分子医科学)

Room 16 Sep. 28 (Sat.) 8:00-8:50 J

### ML19 Morning Lectures 19

Chairperson: Wataru Yasui (Dept. Mol. Path. Grad. Sch. of Biomed. Health Sci., Hiroshima Univ.)  
座長: 安井 弥 (広島大・院・医系科学研究科・分子病理学)

- ML19** **Development and biomedical applications of tissue clearing technologies**  
Etsuo A. Susaki<sup>1,2</sup> (<sup>1</sup>Dept. Syst. Pharmacol., UTokyo Grad. Sch. Med., <sup>2</sup>Lab. Synthetic Biol., RIKEN BDR)  
組織透明化技術の開発と医学生物学応用  
洲崎 悦生<sup>1,2</sup> (<sup>1</sup>東京大・医・システムズ薬理学, <sup>2</sup>理研 BDR・合成生物学研究 T)

## Core Symposia

Room 1 Sep. 28 (Sat.) 9:00-11:30

E

## CS3 Frontier in telomere biology for innovative cancer therapy

革新的がん治療に向けたテロメア生物学のフロンティア

Chairpersons: Hiroyuki Seimiya (Div. Mol. Biotherapy, Cancer Chemother. Ctr., JFCR)

Jerry Shay (Dept. Cell Biol., UT Southwestern)

座長：清宮 啓之（(公財) がん研・化学療法セ・分子生物治療研究部）

Jerry Shay (Dept. Cell Biol., UT Southwestern)

Cell immortality by unusual telomere maintenance is one of the hallmarks of cancer. In a therapeutic aspect, however, anticancer outcome of telomerase inhibition must await the emergence of a critically shortened telomere, which would require a long treatment duration. Recent studies in telomere biology have further deepened our understanding of the pathophysiological implications of telomere dysfunction. For example, telomere-driven autophagy plays a key role for replicative crisis, which prevents appearance of cells with chromosome instability and the resulting cancer. Meanwhile, not only telomerase but also various components or regulators of telomeres have been found as promising targets for cancer therapy, involving telomere-dependent and independent mechanisms. Chemical compounds that target telomerase and telomere-related factors may provide opportunities to improve the response to immune checkpoint inhibitors or to conquer drug resistance, cancer stemness and yet-undruggable oncogenic pathways. This symposium will focus on the cutting-edge topics stemming from chromosome ends to have a view of the new horizons of cancer biology and medicine.

## CS3-1 Telomere biology in cancer researches

Fuyuki Ishikawa (Grad. Sch. Biostudies, Kyoto Univ.)

がん研究におけるテロメア生物学

石川 冬木（京都大・院生命科学）

## CS3-2 The regulation of proliferative boundaries by autophagy

Jan Karlseder<sup>1</sup>, Joe Nassour<sup>1</sup>, Robert Radford<sup>1</sup>, Adriana Correia<sup>1</sup>, Anna Merlo<sup>1</sup>, Anna Jauch<sup>2</sup>, Reuben Shaw<sup>1</sup> (<sup>1</sup>The Salk Inst., USA, <sup>2</sup>Univ. of Heidelberg, Germany)

## CS3-3 Therapeutic targeting of telomeres induces replication stress vulnerabilities in cancer

Jerry Shay (Dept. Cell Biol., UT Southwestern)

## CS3-4 Crossroads of telomere biology and cancer drug discovery

Hiroyuki Seimiya (Div. Mol. Biother., JFCR Cancer Chemother. Ctr.)

テロメア生物学とがん創薬の交差点

清宮 啓之（(公財) がん研・化療セ・分子生物治療）

## Symposia

Room 2 Sep. 28 (Sat.) 9:00-11:30

E

## S19 Cancer immunotherapy sensitivity and resistance

免疫療法の効果と耐性

Chairpersons: Hiroshi Kawamoto (Inst. for Frontier Life &amp; Med. Sci., Kyoto Univ.)

Kazuma Kiyotani (Cancer Precision Med. Ctr., JFCR)

座長：河本 宏（京都大・ウイルス・再生医科学研究）

清谷 一馬（(公財) がん研・がんプレジジョン医療研究セ・免疫ゲノム医療開発プロジェクト）

Although cancer immunotherapy including immune checkpoint inhibitors have been shown to be effective for patients with various types of cancer, the efficacy is limited. To improve the efficacy, identification of better biomarkers to predict patients' responses, better understanding resistance mechanisms, and development of novel immunotherapies. In this session, we would present several recent updates to understand mechanisms of resistance to immune checkpoint inhibitors, and to show the possibility to develop novel T cell therapies targeting cancer-specific antigens, including neoantigens.

## S19-1 TCR repertoires in lung adenocarcinomas with and without EGFR mutation

Eisaku Miyauchi<sup>1</sup>, Tatsuo Matsuda<sup>2</sup>, Kazuma Kiyotani<sup>3</sup>, Low Siew-Kee<sup>3</sup>, Yoko Tsukita<sup>1</sup>, Masakazu Ichinose<sup>1</sup>, Akira Sakurada<sup>1</sup>, Yoshinori Okada<sup>1</sup>, Ryoko Saito<sup>5</sup>, Yusuke Nakamura<sup>3</sup> (<sup>1</sup>Dept. Resp. Med., Tohoku Univ., <sup>2</sup>Dept. Gast. Surg., Okayama Univ., <sup>3</sup>Cancer Precision Med. Ctr., JFCR, <sup>4</sup>Dept. Thorac. Surg., Tohoku Univ., <sup>5</sup>Dept. Pathol., Tohoku Univ. Hosp.)EGFR 遺伝子変異陽性/陰性肺癌における T 細胞受容体レパトア解析  
宮内 栄作<sup>1</sup>、松田 達雄<sup>2</sup>、清谷 一馬<sup>3</sup>、Low Siew-Kee<sup>3</sup>、突田 容子<sup>1</sup>、一ノ瀬 正和<sup>1</sup>、桜田 晃<sup>1</sup>、岡田 克典<sup>1</sup>、齊藤 涼子<sup>5</sup>、中村 祐輔<sup>3</sup>（<sup>1</sup>東北大・医・呼吸器内科、<sup>2</sup>岡山大・医・消化器外科、<sup>3</sup>(公財) がん研・がんプレジジョン医療セ、<sup>4</sup>東北大・医・呼吸器外科、<sup>5</sup>東北大・病・病理部）

## S19-2 Secreted PD-L1 variants caused by aberrant splicing mediate anti-PD-L1 antibody resistance

Bo Gong<sup>1</sup>, Kazuma Kiyotani<sup>2</sup>, Seiji Sakata<sup>3</sup>, Makoto Nishio<sup>4</sup>, Kengo Takeuchi<sup>3,5</sup>, Hiroshi Kawamoto<sup>6</sup>, Naoya Fujita<sup>7</sup>, Ryohei Katayama<sup>1</sup> (<sup>1</sup>Div. Experiment. Chemother., Cancer Chemother. Ctr., JFCR, <sup>2</sup>Div. Project for Immunogenomics, Cancer Precision Med. Ctr., JFCR, <sup>3</sup>Div. Path. Project for Mol. Targets, Cancer. Inst., JFCR, <sup>4</sup>Thoracic. Ctr., Cancer Inst. Hosp., JFCR, <sup>5</sup>Div. Path., Cancer. Inst., JFCR, <sup>6</sup>Lab. Immunol., Inst. Frontier Life & Med. Sci., Kyoto Univ., <sup>7</sup>Cancer Chemother. Ctr., JFCR)

分泌型 PD-L1 バリエントを介した免疫チェックポイント治療薬治療耐性機構の発見

龔 博<sup>1</sup>、清谷 一馬<sup>2</sup>、坂田 征士<sup>3</sup>、西尾 誠人<sup>4</sup>、竹内 賢吾<sup>3,5</sup>、河本 宏<sup>6</sup>、藤田 直也<sup>7</sup>、片山 量平<sup>1</sup>（(公財) がん研・化療セ・基礎研究部、<sup>2</sup>(公財) がん研・免疫ゲノム医療開発、<sup>3</sup>(公財) がん研・分子標的病理、<sup>4</sup>(公財) がん研・有明病院・呼吸器内科、<sup>5</sup>(公財) がん研・病理部、<sup>6</sup>京都大・再生医科学研究・再生免疫学分野、<sup>7</sup>(公財) がん研・化療セ）

## S19-3 IL-34 in tumor microenvironment induces resistance against immunotherapy

Ken-ichiro Seino (Div. Immunobio., Inst. Genet. Med., Hokkaido Univ.)

がん微小環境に存在する IL-34 は免疫療法の効果を減弱させる  
清野 研一郎（北海道大・遺伝研・免疫生物）

## S19-4 Generation of CTLs from pluripotent stem cells: toward the development of "off-the-shelf T cells"

Hiroshi Kawamoto (Lab Immunol, Inst. Front. Life Med. Sci, Kyoto Univ.)

多能幹細胞から CTL を再生：即納型 T 細胞製剤の開発  
河本 宏（京都大・ウイルス再生研・再生免疫）

## S19-5 Screening of cancer-reactive/neoantigen-specific T cells in peripheral blood and tumor tissues of cancer patients

Kazuma Kiyotani, Yusuke Nakamura (Cancer Precision Med. Ctr., JFCR)

がん反応性/ネオアンチゲン特異的 T 細胞のスクリーニング  
清谷 一馬、中村 祐輔（(公財) がん研・がんプレジジョン医療研究セ）

## S19-6 Immunotherapy with T cells transduced with neoantigen-specific TCRs

Hans Schreiber (Dept. Path., The Univ. of Chicago)

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## Symposia

Room 3 Sep. 28 (Sat.) 9:00-11:30

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### S20 Frontier in Molecular Target Therapy of Cancer

分子標的抗がん剤開発のフロンティア

Chairpersons: Masakazu Toi (Breast Cancer Unit, Kyoto Univ. Hosp., Breast Surg., Grad. Sch. of Med., Kyoto Univ.)  
Hideaki Kakeya (Grad. Sch. of Pharm. Sci., Kyoto Univ.)

座長：戸井 雅和（京都大・医附属病院）  
掛谷 秀昭（京都大・院薬）

Molecular target therapy of cancer has been emerging as a promising treatment to overcome survival, metastasis, and progression of various types of cancers. However, new molecular targets as well as new methodologies are requisite to develop novel molecular target chemotherapy. In this symposium, current topics for drug development and translational research on molecular target therapy of cancer will be presented and discussed.

- S20-1 Targeting tumor cell resistance to apoptosis as a promising therapeutic modality to bolster cancer therapies**  
Frederic Levy (Debiopharm)
- S20-2 Targeting of a non-catalytic function of H3K4 methyltransferase SETD1A in leukemia**  
Takayuki Hoshii (Dept. Innov. Med., Grad. Sch. of Med., Chiba Univ.)  
白血病における H3K4 メチル化酵素 SETD1A のもつ新規機能の抑制  
皇居 孝之（千葉大・院・イノベ医）
- S20-3 Development of water-soluble pro-drug CMG which inhibits proteasome activity through DYRK2 dependent manner**  
Masashi Kanai<sup>1</sup>, Atsuhiko Kishimoto<sup>2</sup>, Hitomi Umeta<sup>2</sup>, Atsushi Imaizumi<sup>2</sup>, Hideaki Kakeya<sup>3</sup> (Kyoto Univ. Hosp., Dept. Med. Oncology, <sup>2</sup>Therabiopharma Inc., <sup>3</sup>Grad. Sch. of Pharm. Sci., Kyoto Univ.)  
DYRK2 依存的プロテアソーム阻害活性を有する水溶性プロドラッグ型クルクミン (CMG) の開発研究  
金井 雅史<sup>1</sup>、岸本 充弘<sup>2</sup>、梅田 瞳<sup>2</sup>、今泉 厚<sup>2</sup>、掛谷 秀昭<sup>3</sup>（<sup>1</sup>京都大・医附属病院・腫瘍内科、<sup>2</sup>セラバイオファーマ社、<sup>3</sup>京都大・院薬）
- S20-4 Novel ADC drug candidates made possible by DXd technology platform: Research and Development Update**  
Toshinori Agatsuma (Oncology Res. Labs. I, RD Div., Daiichi Sankyo, Co., Ltd.)  
DXd 技術を用いた新規 ADC 薬の創製：研究開発の進捗  
我妻 利紀（第一三共（株）・研究開発・オンコロジー第一研）
- S20-5 Vactosertib, a novel TGF-β kinase inhibitor, promotes anti-tumor efficacy in combination with various cancer therapies**  
Seong-Jin Kim, Pyunggang Kim, Yuna Park, Haein An, Yealeen Jeong, Siyoung Lee (AICT, Seoul Natl. Univ.)
- S20-6 De novo peptide therapeutics and innovation**  
Hiroaki Suga (Grad. Sch. Science., U. Tokyo)  
特殊ペプチド創薬イノベーション  
菅 裕明（東京大・院理）

## Special Programs

Room 4 Sep. 28 (Sat.) 9:00-11:30

J

### SP6 Cancer Prevention - Contemplation on Future Colorectal

がん予防～大腸がん予防の今後を考える～

Chairpersons: Hideki Ishikawa (Dept. Molecular-Targeting Cancer Prevention, Kyoto Pref. Univ. of Med.)  
Motoki Iwasaki (Div. Epidemiology, Ctr. for Public Health Sci., Natl. Cancer Ctr.)

座長：石川 秀樹（京都府医大・分子標的癌予防医学）  
岩崎 基（国立がん研セ・社会と健康研セ・疫学研究部）

Incidence and mortality rates for colorectal cancer in Japan both linearly increased up to the early 1990s. Colorectal cancer is currently the second most common cancer diagnosis and the third leading cause of cancer-related death among Japanese, with approximately 145,434 new cases in 2014 and 50,681 disease-specific deaths in 2017. The very high burden of this cancer encourages research on primary and secondary prevention. Many previous epidemiologic studies have identified a number of lifestyle and environmental risk factors for colorectal cancer. Some of these factors are established and modifiable, and it is necessary to translate their evidence into the development of preventive strategies. Meanwhile, promising factors are still limited for prevention of colorectal cancer. In this session, we will share knowledge from the latest studies for epidemiology, early detection, and chemoprevention and discuss about future direction of colorectal cancer prevention in Japan.

- SP6-1 Trends in incidence and mortality, and risk factors of colorectal cancer in Japan**  
Hidemi Ito (Div. Cancer Information & Control, Aichi Cancer Ctr.)  
日本人の大腸がん罹患・死亡の動向とリスク要因  
伊藤 秀美（愛知県がんセ・がん情報・対策研究分野）
- SP6-2 Colorectal cancer prevention using health insurance claim database**  
Yasunari Mano (Clin. Drug Informatics Lab., Dept. Pharm., Tokyo Univ. of Sci.)  
レセプトデータを用いた大腸がん予防の可能性  
真野 泰成（東京理科大・薬・臨床薬情情報学研究室）
- SP6-3 AI-based identification of anticancer drugs**  
Yoshihiro Yamanishi (Dept. Biosci. Bioinf., Fac. Comp. Sci. Syst., Kyushu Inst. Tech.)  
AI を用いた抗がん作用薬の同定  
山西 芳裕（九州工業大・情工・生命化学）
- SP6-4 Chemoprevention by drug repositioning**  
Michihiro Mutoh (Div. Prevention, Ctr. For Public Health Sci., Natl. Cancer Ctr.)  
ドラッグリポジショニングによるケモプリベンション  
武藤 倫弘（国立がん研セ・予防研究部）
- SP6-5 How we implement a liquid biopsy for early detection and prevention of colorectal cancer in clinical use**  
Hiroyuki Takamaru<sup>1</sup>, Juntao Matsuzaki<sup>2</sup>, Ken Kato<sup>3</sup>, Narikazu Boku<sup>3</sup>, Yukihide Kanemitsu<sup>4</sup>, Yutaka Saito<sup>5</sup>, Takahiro Ochiya<sup>1</sup> (<sup>1</sup>Div. Endoscopy, Natl. Cancer Ctr. Hosp., <sup>2</sup>Div. Gastroenterol. Hepatol., Dept. Int. Med., Keio Univ. Sch. Med., <sup>3</sup>Gastrointestinal Med. Oncology Div., Natl. Cancer Ctr. Hosp., <sup>4</sup>Dept. Colorectal Surg., Natl. Cancer Ctr. Hosp., <sup>5</sup>Div. Mol. Cell. Med., Tokyo Med. Univ.)  
大腸癌の早期発見と予防に有効なリキッドバイオプシーは何か？  
高丸 博之<sup>1</sup>、松崎 潤太郎<sup>2</sup>、加藤 健<sup>3</sup>、朴 成和<sup>3</sup>、金光 幸秀<sup>4</sup>、斎藤 豊<sup>1</sup>、落谷 孝広<sup>5</sup>（<sup>1</sup>国立がん研セ・中央病院・内視鏡科、<sup>2</sup>慶應大・医・内科学・消化器内科、<sup>3</sup>国立がん研セ・中央病院・消化管内科、<sup>4</sup>国立がん研セ・中央病院・大腸外科、<sup>5</sup>東京慈恵会医大・分子細胞治療研究部門）
- SP6-6 Surrogate marker for chemoprevention study on colorectal cancer- Molecular imaging of aberrant crypt foci**  
Testuji Takayama, Koichi Okamoto, Naoki Muguruma (Dept. Gastroenterology Oncology, Inst. Biomed. Sci., Tokushima Univ. Grad. Sch.)  
大腸がん予防研究のサロゲートマーカー— Aberrant crypt foci の分子イメージング—  
高山 哲治、岡本 耕一、六車 直樹（徳島大・院医歯薬・消化器内科学）
- SP6-7 Cancer Prevention -Contemplation on Future Colorectal Cancer Prevention**  
Hideki Ishikawa (Dept. Molecular-Targeting Cancer Prevention, Kyoto Pref. Univ. of Med.)  
癌化学予防 ～大腸癌予防の今後を考える～  
石川 秀樹（京都府医大・医・分子標的癌予防医学）

International Sessions

Room 5 Sep. 28 (Sat.) 9:00-11:30

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**IS9 Advances in immunogenomics and application to precision medicine**

イムノゲノミクスの進歩と精密医療への応用

Chairpersons: Toshihiko Torigoe (Dept. Path. I, Sapporo Med. Univ. Sch. of Med.)  
Young T. Kim (Dept. Thorac. Surg. Seoul National Univ.)

座長：鳥越 俊彦 (札幌医大・医・病理学第一講座)

Young T. Kim (Dept. Thorac. Surg. Seoul National Univ.)

Immunotherapy has become the fourth standard therapy for certain advanced cancer. However, the molecular mechanisms and biomarkers of immunotherapy remain to be elucidated. Recent advancement of new technologies such as next-generation sequencing and single cell omics technology enabled us to clarify the genetic characterization of both cancer cells and host immune cells. This session aims to open the door to a new field “cancer immunogenomics” and its application to precision medicine.

**IS9-1 Immuno genomics analysis of tumor-infiltrating lymphocytes**

Yoshihiko Hirohashi, Masahiro Matsuki, Munchide Nakatsugawa, Toshihiko Torigoe (1st Dept. Pathol., Sapporo Med. Univ., Sch. Med.)

腫瘍浸潤リンパ球の免疫ゲノム解析

廣橋 良彦、松木 雅裕、中津川 宗秀、鳥越 俊彦 (札幌医大・医・第一病理)

**IS9-2 Development of the Immune Score as a Strong Prognostic Factor and an Indicator of Chemosensitivity in ovarian cancer**

Li-jun Di<sup>1</sup>, Dapeng Hao<sup>1</sup>, Li Wang<sup>1</sup>, Xiaobo Li<sup>2</sup> (1Faculty of Health Sci., Univ. of Macau, 2Dept. Path., Harbin Med. Univ.)

**IS9-3 Allelic polymorphisms of KIRs and HLA predict favorable responses to tyrosine kinase inhibitors in CML**

Takero Shindo<sup>1</sup>, Hiroshi Ureshino<sup>2</sup>, Shinya Kimura<sup>2</sup> (1Dept. Hematol., Kyoto Univ., Sch. Med., 2Dept. Hematol. Respir. Med. Oncol., Saga Univ., Sch. Med.)

慢性骨髄性白血病に対するチロシンキナーゼ阻害剤の治療効果は KIR と HLA のアレル多型で予測できる

進藤 岳郎<sup>1</sup>、嬉野 博志<sup>2</sup>、木村 晋也<sup>2</sup> (1京大・医・血液内科、2佐賀大・医・血液・呼吸器・腫瘍内科)

**IS9-4 Immunologic Portrait and Classification of Triple-Negative Breast Cancer**

Xiaosheng Wang, Yin He, Zechang Jiang, Zhixian Liu, Mengyuan Li (Sch. of Basic Med. & Clin. Pharm., China Pharm. Univ.)

**IS9-5 Immunogenomic analysis of immune suppression mechanisms in primary liver cancer**

Masashi Fujita<sup>1</sup>, Rui Yamaguchi<sup>2</sup>, Kouji Arihiro<sup>3</sup>, Shu Shimada<sup>4</sup>, Satoru Miyano<sup>5</sup>, Hiroki Yamaue<sup>6</sup>, Kazuaki Chayama<sup>5</sup>, Kazuhiro Kakimi<sup>7</sup>, Shinji Tanaka<sup>4</sup>, Seiya Imoto<sup>3</sup>, Hidewaki Nakagawa<sup>1</sup> (1RIKEN Ctr. for Integrative Med. Sci., 2Inst. Med. Sci., Univ. of Tokyo, 3Dept. Anatomical Path., Hiroshima Univ., 4Dept. Mol. Oncol., Grad. Sch. Med., Tokyo Med. Dent. Univ., 5Dept. Gastroenterol. Metab., Grad. Sch. Biomed. Health Sci., Hiroshima Univ., 6Second Dept. Surg., Wakayama Med. Univ., 7Dept. Immuno-therapeutics, Univ. of Tokyo Hosp.)

肝臓がん免疫抑制機構の免疫ゲノム解析

藤田 征志<sup>1</sup>、山口 類<sup>2</sup>、有廣 光司<sup>3</sup>、島田 周<sup>4</sup>、宮野 悟<sup>5</sup>、山上 裕機<sup>6</sup>、茶山 一彰<sup>5</sup>、垣見 和宏<sup>7</sup>、田中 真二<sup>4</sup>、井元 清哉<sup>2</sup>、中川 英刀<sup>1</sup> (1理研・生命医科学研究セ、2東京大・医科研、3広島大・病院・病理診断科、4東京医歯大・医・分子腫瘍医学、5広島大・消化器・代謝内科、6和歌山県医大・第2外科、7東京大・病院・免疫細胞治療)

**IS9-6 Advances in Immuno-Genomics and Application to Immuno-Biomarkers**

Young T. Kim (Dept. Thorac. Surg. Seoul National Univ.)

International Sessions

Room 6 Sep. 28 (Sat.) 9:00-11:30

E

**IS10 The role of Japan in realizing Universal Health Coverage in cancer in Asia: From the perspective of the Asia Health and Wellbeing Initiative**

アジアのがん医療における UHC 実現に向けた日本の役割—アジア健康構想からの展望

Chairpersons: Hideyuki Akaza (Interfaculty Initiative in Information Studies, Univ. of Tokyo)

Aru Sudoyo (Indonesian Cancer Foundation)

座長：赤座 英之 (東京大・院・情報学環)

Aru Sudoyo (Indonesian Cancer Foundation)

The UICC-Asia Regional Office (UICC-ARO) has been engaged from an early stage in initiatives seeking to realize UHC for cancer care in Asia, and from 2018 has organized the Asian Cancer Public-Private Dialogue Forum, bringing together representatives of academia, government and industry to discuss initiatives for UHC for cancer in Asia under the framework of AHWIN. These discussions led to the inclusion of new text in AHWIN, seeking to “consider the establishment of a public-private platform that will engage in comprehensive considerations on a disease-specific basis to harmonize registries with a view to sharing databases on cancer.” Given that there is still insufficient international discussion on the methods for realizing UHC for cancer, based on the outcomes of discussions at the public-private forum last year, this session will discuss what role Japan can play to realize UHC in Asia. Speakers from a broad range of backgrounds and areas of expertise will discuss challenges and the future outlook from various perspectives.

**IS10-1 TBD**

Aru Sudoyo (Indonesian Cancer Foundation)

**IS10-2 Prevention and treatment of cancer in lower middle income countries in Southeast Asia**

Nobuyuki Hamajima (Dept. Healthcare Administration, Nagoya Univ. Grad. Sch. Med.)

東南アジアの低・中所得国におけるがん予防とがん医療  
浜島 信之 (名古屋大・医・医療行政学)

**IS10-3 Challenges and Outlook for Constructing an Asian Cancer Treatment Database**

Jasmine Lim (Dept. Surg. Univ. of Malaya)

**IS10-4 Cancer Medicine in Asia, can we compete in digital Asia?**

Haruhiko Sugimura (Dept. Tumor Path., Hamamatsu Univ. Sch. of Med.)

デジタル時代のアジアがん医療 われわれは伍していけるのか  
楳村 春彦 (浜松医大・医・腫瘍病理)

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## Introduction Course for Current Cancer Research

Room 7 Sep. 28 (Sat.) 9:00-9:50

J

### IC1 Introduction Course for Current Cancer Research 1 がん研究入門コース 1

Chairperson: Kazutaka Obama (Dept. Surg., Grad. Sch. of Med., Kyoto Univ.)  
座長: 小濱 和貴 (京都大・消化管外科)

#### IC1 **Clinical question, animal model, and collaboration are essential for surgeons' research**

Eturo Hatano (Dept. Surg., Hyogo College of Med.)

外科医の研究に必要なのは?

波多野 悦朗 (兵庫医大・肝胆膵外科)

Room 7 Sep. 28 (Sat.) 9:50-10:40

J

### IC2 Introduction Course for Current Cancer Research 2 がん研究入門コース 2

Chairperson: Hiroyuki Sasaki (Med. Inst. Bioreg., Kyushu Univ.)  
座長: 佐々木 裕之 (九州大・生医研)

#### IC2 **Dissecting cancer biology with iPS cell technology**

Yasuhiro Yamada (Inst. of Med. Sci., The Univ. of Tokyo)

iPS 細胞技術によるがん細胞の理解と制御

山田 泰広 (東京大・医科研)

Room 7 Sep. 28 (Sat.) 10:40-11:30

J

### IC3 Introduction Course for Current Cancer Research 3 がん研究入門コース 3

Chairperson: Keiko Nakayama (Tohoku Univ., Grad. Sch. of Med.)  
座長: 中山 啓子 (東北大・医・細胞増殖)

#### IC3 **Introduction to DRY-intensive cancer research that makes full use of public databases**

Hidemasa Bono (DBCLS, ROIS)

公共データベースを活用した DRY ながん研究入門

坊農 秀雅 (情シ研究機構・ライフサイエンス統合 DB セ)

## JCA-Mauvernay Awards Session

Room 8 Sep. 28 (Sat.) 9:00-11:30



E

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

Chairpersons: Johji Inazawa (Tokyo Med. & Dent. Univ.)  
Tetsuya Mitsudomi (Dept. Surg., Kindai Univ.)  
座長: 稲澤 謙治 (東京医歯大・難研)  
光富 徹哉 (近畿大・外科)

#### MVA-1 **Discovery of EML4-ALK and introduction of cancer genomic medicine**



Hiroyuki Mano (Natl. Cancer Ctr.)

EML4-ALK の発見からがんゲノム医療への展開  
間野 博行 (国立がん研セ)

#### MVA-2 **ASK family kinases in Stress Signaling and Cancer**



Hidenori Ichijo (Cell signaling, Pharm. Sci. U-Tokyo)

ASK ファミリーによるストレスシグナル制御とがん  
一條 秀憲 (東京大・院薬・細胞情報学教室)

#### MVA-3 **Epigenetic field: Discovery to A Clinical Application**



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

エピジェネティックフィールド: 発見から臨床応用まで  
牛島 俊和 (国立がん研セ・研・エピゲノム)

#### MVA-4 **Splicing factor mutations in myelodysplastic syndromes**



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

骨髄異形成症候群における RNA スプライシング因子の異常  
小川 誠司 (京都大・医・腫瘍生物学)

#### MVA-5 **Cancer clonal evolution and involvement of the microbiota in cancer development**



Shinichi Yachida (Dept. Cancer Genome Informatics, Osaka Univ., Grad. Sch. Med.)

がんの発症・進展におけるクローン進化と微生物叢の関与  
谷内田 真一 (大阪大・医・がんゲノム情報学)

#### MVA-6 **Identification of the resistance mechanisms to molecular targeted drugs and immune checkpoint inhibitor in lung cancer**



Ryohei Katayama (Exp. Chemothera., Cancer Chemothera. Ctr., JFCR)

肺がんに対する分子標的薬および免疫チェックポイント阻害薬耐性機構の発見

片山 量平 ((公財) がん研・がん治療セ・基礎部)

## SST5

**Development and clinical usage of drug therapy based on nation-wide precision oncology platforms**

がんゲノム医療体制にもとづく薬物治療の実践、開発

Chairpersons: Hiroshi Nishihara (Genomics Unit, Keio Cancer Ctr., Keio Univ. Sch. of Medicine)  
Katsuya Tsuchihara (Div. Translational Informatics, Exploratory Oncology Res. & Clin. Trial Ctr., Natl. Cancer Ctr.)

座長：西原 広史 (慶應大・病院医・腫瘍セ・ゲノム医療ユニット)  
土原 一哉 (国立がん研セ・先端医療開発セ・トランスレーショナル・インフォマティクス分野)

Over the past year, Ministry of Health, Labour and Welfare designated core and cooperative hospitals for cancer genomic medicine covering all over Japan as well as the Center for Cancer Genomics and Advanced Therapeutics (C-CAT) for a central data center of the clinico-genomics data obtained in these hospitals. Meanwhile, two genomic profiling tests to identify genomic alterations in solid tumors has been approved and reimbursed. These series of events must be fundamental infrastructure for establishing precision oncology as best practice and standard of care in Japan. Now, we, medical oncologists and cancer researchers face challenges to utilize these systems for better practice, research and development of cancer treatment. In this session, we will discuss about how to handle molecular tumor boards, access investigative new drugs, and utilize real world data. Experiences of precision oncology in Korea will be also introduced.

**SST5-1 Experience of expert panel in National Cancer Center Hospital East**

Toru Mukohara (Dept. Breast & Med. Oncol., Natl. Cancer Ctr. Hosp. East)

国立がん研究センター東病院におけるエキスパートパネルの経験  
向原 徹 (国立がん研セ・東病院・乳腺・腫瘍内科)

**SST5-2 Experience of Expert Panel at Designated Core Hospital for Cancer Genomic Medicine (in case of a university hospital).**

Shigemi Matsumoto, Masashi Kanai, Tomohiro Kondo, Quy Pham Nguyen, Manabu Muto (Dept. Therapeutic Oncology, Grad. Sch. of Med., Kyoto Univ.)

がんゲノム医療中核病院(大学病院)におけるエキスパートパネルの経験から  
松本 繁巳、金井 雅史、近藤 知大、フナム ゴエンクイ、武藤 学  
(京都大・院・腫瘍薬物治療学講座)

**SST5-3 Potential roles of patient-requested treatment and a conditional early approval system based on designated hospitals**

Taro Shibata (Dept. Biostatistics, Natl. Cancer Ctr.)

がんゲノム医療中核拠点病院等を基盤にした条件付き早期承認、患者申出療養制度について  
柴田 大朗 (国立がん研セ・生物統計部)

**SST5-4 Use of real world data in clinical trials for pre-market products**

Shogo Nomura (Ctr. for Res. Administration & Support, Natl. Cancer Ctr.)

新薬開発におけるリアルワールドデータの利活用  
野村 尚吾 (国立がん研セ・研究支援セ)

**SST5-5 Utility of integrated cancer panel sequencing data for precision cancer medicine**

Woong-Yang Park (Samsung Genome Inst., Samsung Med. Ctr.)

S21

**Interactions between genomic and environmental factors during carcinogenesis**

発がん過程におけるゲノムと環境因子の相互作用

Chairpersons: Tatsuhiro Shibata (The Inst. of Mol. Med., The Univ. of Tokyo)  
Yukari Totsuka (Div. Carcinogenesis & Cancer Prevent., Natl. Cancer Ctr. Res. Inst.)

座長：柴田 龍弘 (東京大・医科研)

戸塚 ゆかり (国立がん研セ・研・発がん・予防研究分野)

Cancer develops as a result of accumulated genetic and/or epigenetic alterations in a subset of oncogenes or tumor suppressor genes. It is widely accepted that environmental factors substantially contribute to human cancer development. However, the molecular mechanisms by which environmental factors induce human cancer have not been fully elucidated yet. Currently, high-throughput and sensitive technologies for genomics and epigenomics have clarified the heterogeneous clones within cancer and surrounding non-cancerous tissues and the unique features of genetic/epigenetic changes in these lesions. These data will be useful to explore the origins and etiology of human cancer and to discover how environmental factors are responsible for human carcinogenesis. In this symposium, eight distinguished speakers from broad research fields will introduce their latest findings. We hope that this symposium will be a good opportunity to learn the status of environmental carcinogenesis research combined with cancer genomics and to discuss the future perspectives of the development of precision cancer prevention.

**S21-1 Genome and DNA adduct analyses elucidates the association between environmental factors and human cancer development**

Yukari Totsuka (Div. Carcinogenesis & Cancer Prevent., Natl. Cancer Ctr. Res. Inst.)

ゲノムおよび DNA 付加体の網羅解析データを用い、環境要因のヒト発がんへの関与を明らかにする

戸塚 ゆかり (国立がん研セ・研・発がん・予防)

**S21-2 Genomic alterations in animal carcinogenesis associated with iron-mediated oxidative stress**

Shinya Akatsuka, Li Jiang, Fumiya Ito, Shinya Toyokuni (Dept. Pathol. Biol. Responses, Nagoya Univ., Grad. Sch. Med.)

鉄を介した酸化ストレスによる動物発がんモデルとゲノム変化

赤塚 慎也、蔭 麗、伊藤 文哉、豊國 伸哉 (名古屋大・院医・生体反応病理学)

**S21-3 Recent advances in understanding of urinary bladder cancers related to occupational exposure to aromatic amines**

Hideki Wanibuchi, Min Wei (Mol. Path. Osaka City Univ. Grad. Sch. Med.)

芳香族アミンによる職業性膀胱がんに関する最新知見

鰐淵 英機、魏 民 (大阪市大・医・分子病理学)

**S21-4 Discovery of unique mutational signature in occupational cholangiocarcinoma**

Sachiyo Mimaki<sup>1,2</sup>, Shoji Kubo<sup>3</sup>, Katsuya Tsuchihara<sup>2</sup> (1Dept. Genetic Med. & Services, Hosp. East, Natl. Cancer Ctr., 2Div. Translational Informatics, EPOC, Natl. Cancer Ctr., 3Dept. Hepato-Biliary-Pancreatic Surg., Osaka City Univ.)

職業性胆管がんの特異的な変異パターンの発見

三牧 幸代<sup>1,2</sup>、久保 正三<sup>3</sup>、土原 一哉<sup>2</sup> (1国立がん研セ・東・遺伝子診療部門、2国立がん研セ・先端医療開発セ・T1、3大阪市大・肝胆脾外科)

**S21-5 Tobacco exposure and somatic mutations in normal bronchial epithelia**

Kenichi Yoshida<sup>1</sup>, Kate Gowers<sup>2</sup>, Henry Lee-Six<sup>1</sup>, Tim Correns<sup>1</sup>, Adam Pennycuik<sup>2</sup>, Sam M. Janes<sup>2</sup>, Peter J. Campbell<sup>1</sup> (1Cancer, Ageing & Somatic Mutation, The Wellcome Sanger Inst., 2Lungs for Living Res. Ctr., UCL Respiratory, Univ. College London)

正常気管支上皮にみられる喫煙による体細胞変異

吉田 健一<sup>1</sup>、Kate Gowers<sup>2</sup>、Henry Lee-Six<sup>1</sup>、Tim Correns<sup>1</sup>、Adam Pennycuik<sup>2</sup>、Sam M. Janes<sup>2</sup>、Peter J. Campbell<sup>1</sup> (1ウェルカム・サンガー・研、2ユニバーシティ・カレッジ・ロンドン)

**S21-6 Age-related remodeling of esophageal epithelia by mutated cancer drivers**

Akira Yokoyama<sup>1,2</sup>, Nobuyuki Kakiuchi<sup>1,3</sup>, Tetsuichi Yoshizato<sup>1</sup>, Yasuhiro Nannya<sup>1</sup>, Yasuhide Takeuchi<sup>1,4</sup>, Yusuke Shiwazawa<sup>1</sup>, Hideki Makishima<sup>1</sup>, Shigeru Tsunoda<sup>5</sup>, Masashi Sanada<sup>6</sup>, Satoru Miyano<sup>7</sup>, Manabu Muto<sup>2</sup>, Seishi Ogawa<sup>1</sup> (1Dept. Path. & Tumor Biol., Kyoto Univ., 2Dept. Clin. Oncology, Kyoto Univ., 3Dept. Gastroenterology & Hepatology, Kyoto Univ., 4Dept. Diagnostic Path., Kyoto Univ., 5Dept. Gastrointestinal Surg., Kyoto Univ., 6Dept. Advanced Diagnosis, Nagoya Med. Ctr., 7Human Genome Ctr., Med. Sci., The Univ. of Tokyo)

加齢に伴う食道上皮の遺伝子変異クローンによる再構築

横山 顕礼<sup>1,2</sup>、垣内 伸之<sup>1,3</sup>、吉里 哲一<sup>1</sup>、南谷 泰仁<sup>1</sup>、竹内 康英<sup>1,4</sup>、塩澤 祐介<sup>1</sup>、牧島 秀樹<sup>1</sup>、角田 茂<sup>5</sup>、真田 昌<sup>6</sup>、宮野 悟<sup>7</sup>、武藤 学<sup>2</sup>、小川 誠司<sup>1</sup> (1京都大・腫瘍生物学、2京都大・腫瘍薬物治療学、3京都大・消化器内科、4京都大・病理診断科、5京都大・消化管外科、6名古屋医療セ・臨床研究セ、7東京大・ヒトゲノム解析セ)

**S21-7 Identification of environmental factors that induce aberrant DNA methylation**

Naoko Hattori<sup>1</sup>, Tohru Niwa<sup>1</sup>, Eriko Okochi-Takada<sup>1</sup>, Toshio Imai<sup>2</sup>, Toshikazu Ushijima<sup>1</sup> (1Div. Epigenomics, Natl. Cancer Ctr. Res. Inst., 2Central Animal Div., Natl. Cancer Ctr. Res. Inst.)

DNA メチル化異常を誘発する環境要因の同定

服部 奈緒子<sup>1</sup>、丹羽 透<sup>1</sup>、大河内 (高田) 江理子<sup>1</sup>、今井 俊夫<sup>2</sup>、牛島 俊和<sup>1</sup> (1国立がん研セ・研・エピゲノム、2国立がん研セ・研・動物実験施設)

**S21-8 Chromatin reprogramming via interaction between host genome and EBV during gastric tumorigenesis**

Atsushi Kaneda (Dept. Mol Oncol, Grad Sch Med., Chiba Univ.)

ホストゲノムと Epstein-Barr ウイルスが胃発がんにおいて及ぼす相互作用とクロマチンリプログラミング

金田 篤志 (千葉大・院医・分子腫瘍学)



English Oral Sessions

Room 11 Sep. 28 (Sat.) 9:00-10:15 E

E14-10 Pancreatic cancer (1) 藤がん (1)

Chairperson: Shinji Tanaka (Dept. Mol. Oncol., Tokyo Med. & Dent. Univ.) 座長: 田中 真二 (東京医歯大・医・分子腫瘍医学)

E-3001 Meflin defines cancer-associated fibroblasts that suppress pancreatic cancer progression

Yasuyuki Mizutani, Atsushi Enomoto, Masahide Takahashi (Dept. Pathol. Nagoya Univ. Sch. Med.) 腫瘍抑制性癌関連線維芽細胞の同定 水谷 泰之、榎本 篤、高橋 雅英 (名古屋大・院医・腫瘍病理学)

E-3002 The liquid biopsy monitoring of KRAS mutation in the subjects with advanced PDAC during chemotherapy

Makoto Sugimori, Kazuya Sugimori, Sho Tsuyuki, Akane Hirotoni, Katsuyuki Sanga, Takeshi Sato, Shun Tezuka, Yoshihiro Goda, Kuniyasu Irie, Haruo Miwa, Wataru Shibata, Akito Nozaki, Shin Maeda (Dept. Gastroenterology, Yokohama City Univ.) 進行膵癌における化学療法施行中の血中遊離遺伝子中 KRAS 変異遺伝子モニタリングの有用性の検討 杉森 慎、杉森 一哉、露木 翔、廣谷 あかね、三箇 克幸、佐藤 健、手塚 琢、合田 賢弘、入江 邦泰、三輪 治生、芝田 渉、野崎 昭人、前田 慎 (横浜市大・消化器内科)

E-3003 Telomerase-specific oncolytic virus eliminates chemoresistant pancreatic ductal adenocarcinoma cells

Takuro Fushimi, Hiroshi Tazawa, Hiroyuki Araki, Takeyoshi Nishiyama, Satoru Kikuchi, Shinji Kuroda, Kazuhiro Noma, Ryuichi Yoshida, Masahiko Nishizaki, Yasuo Urata, Shunsuke Kagawa, Toshiyoshi Fujiwara (Dept. Gastroenterological Surg., Okayama Univ. Grad. Sch. Med., Ctr. for Innovative Clin. Med., Okayama Univ. Hosp., Oncolys BioPharma, Inc) テロメラーゼ依存性腫瘍融解ウイルスは化学療法抵抗性の膵臓がん細胞を破壊する 伏見 卓郎、田澤 大、荒木 宏之、西山 岳芳、菊地 寛次、黒田 新士、野間 和広、吉田 龍一、西崎 正彦、浦田 泰生、香川 俊輔、藤原 俊義 (岡山大・院医・消化器外科、岡山大・新医療研究開発セ、オンコロスバイオファーマ (株))

E-3004 RAMP3 deficiency suppresses metastasis by regulation of podoplanin (PDPN) positive cancer-associated fibroblasts (CAFs)

Kun Dai, Megumu Tanaka, Takayuki Sakurai, Akiko Kamiyoshi, Yuka Ichikawa-Shindo, Hisaka Kawate, Nanqi Cui, Yangxuan Wei, Shuhei Matsui, Keisei Nakamura, Shinji Kakihara, Akihiro Yamauchi, Takayuki Shindo (Dept. Cardiovascular Res., Grad. Sch. of Med., Shinshu Univ., Japan Bio Products) アドレノメデュリン-RAMP3 系の欠損は、癌関連線維芽細胞におけるポドプランリン発現の制御により臓器間転移を抑制する 戴 昆、田中 愛、桜井 敬之、神吉 昭子、新藤 優佳、河手 久香、崔 南奇、Yangxuan Wei、松井 周平、中村 啓成、柿原 伸次、山内 啓弘、新藤 隆行 (信州大・医学系研究科・循環病態学講座、日本生物製剤)

E-3005 Pancreatic stellate cells from human pancreatic cancer show aberrant ECM remodeling in 3D engineered fibrotic tissue

Hiro Yoshi Y. Tanaka, Hiroshi Nishihara, Atsushi Masamune, Mitsunobu R. Kano (Dept. Pharm. Biomed., Okayama Univ., Genomics Unit, Keio Cancer Ctr., Keio Univ. Sch. of Med., Div. Gastroenterol., Tohoku Univ. Grad. Sch. Med., Dept. Pharm. Biomed., Okayama Univ.) ヒト膵がん由来膵星状細胞を用いた三次元膵がん線維化モデルの構築ならびに異常 ECM 改築の機序の解析 田中 啓祥、西原 広史、正宗 淳、狩野 光伸 (岡山大・院医歯薬・医薬品臨床評価学、慶應大・医・腫瘍セ・ゲノム医療ユニット、東北大・院医・消化器病態学分野、岡山大・院ヘルス・医療技術臨床応用学)

E-3006 Mass Spectrometry and Artificial Intelligence Enable Pancreatic Cancer Diagnosis

Wen Y. Chung, Sen Takeda (Dept. Hepatobiliary & Pancreatic Surg. Leicester General Hosp., Sch. of Computing, Sci. & Engineering Univ. of Salford, Dept. Anatomy & Cell Biol. Univ. of Yamanashi, Div. Gastroenterology & Hepatology, Dept. Internal Med., NTUH)

Japanese Oral Sessions

Room 11 Sep. 28 (Sat.) 10:15-11:30 J

J14-8 Pancreatic cancer (2) 膵がん (2)

Chairperson: Yuzo Kodama (Dept. Gastroenterology, Kobe Univ. Grad. Sch. of Med.) 座長: 児玉 裕三 (神戸大・院医・消化器内科学分野)

J-3001 Predicted Prognosis of Pancreatic Cancer Patients by Machine Learning

Seiya Yokoyama, Michiyo Higashi, Akihide Tanimoto (Dept. Pathol., Med. Dent. Sci. Area, Kagoshima Univ.) DNA メチル化解析結果を用いた計算機科学による膵癌予後予測 横山 勢也、東 美智代、谷本 昭英 (鹿児島大・医・病理)

J-3002 Exosomes derived from human pancreatic cancer promote remote metastasis

Yume Terada, Kazuya Shimizu, Taisei Tsuruda, Ryohei Umemoto, Mion Wakita, Aya Oshimo, Hiroshi Takashima, Kumiko Miyashita, Makoto Miyoshi, Yuichi Hori (Dept. Biophysics, Kobe Univ. Grad. Sch. Health Sci., Dept. Int. Med., Kobe Med. Ctr.) ヒト膵癌細胞由来エクソソームは遠隔転移を亢進する 寺田 夢、清水 一也、鶴田 大生、梅本 陵平、脇田 美音、大下 彩、高嶋 宏滋、宮下 久美子、三好 真琴、堀 裕一 (神戸大・保・病態解析学、神戸医療セ・内科)

J-3003 Down-regulation of acid-α glucosidase induce antitumor effect via Mitochondrial dysfunction in pancreatic cancer cell

Ryoga Hamura, Yoshihiro Shirai, Yohta Shimada, Nobuhiro Saito, Takashi Horiuchi, Hiroshi Sugano, Naoki Takada, Tomohiko Tanai, Mitsuru Yanagaki, Yumi Kanegae, Toya Ohashi, Katsuhiko Yanaga (Dept. Surg. Jikei Univ. Sch. Med., Div. Gene Therapy. Res. Ctr. Med. Sci., Core Res. Faci., Res. Ctr. Med. Sci.) 酸性 α グルコシダーゼ抑制によるミトコンドリア機能不全を介した塩酸ゲムシタピンの抗腫瘍効果増強の試み 羽村 凌雅、白井 祥睦、嶋田 洋太、斎藤 庸博、堀内 堯、菅野 宏、高田 直樹、谷合 智彦、柳垣 充、鐘ヶ江 裕美、大橋 十也、矢永 勝彦 (慈恵医大・外科、慈恵医大・遺伝子治療研究部、慈恵医大・基盤研究施設)

J-3004 DNA-alkylating pyrrole-imidazole polyamides identify a gene responsible for anti-cancer drug sensitivity in PDAC

Akiko Tsujimoto, Hiroyuki Yoda, Jason Lin, Miina Matsuo, Takayoshi Watanabe, Yoshinao Shinozaki, Hiroki Nagase, Atsushi Takatori (Div. gastroenterology, Chiba cancer center, Div. Innovative Cancer Therap., Chiba Cancer Ctr. Res. Inst., Grad. Sch. of Med. & Pharm. sciences, Chiba Univ., Div. Cancer Genetics, Chiba Cancer Ctr. Res. Inst.) アルキル化ピロール・イミダゾールポリアミドを用いた膵癌における薬剤感受性関連遺伝子の探索 辻本 彰子、養田 裕行、Jason Lin、松尾 仁以奈、渡部 隆義、篠崎 喜脩、永瀬 浩喜、高取 敦志 (千葉県がんセ・消化器内科、千葉県がんセ・研・がん先進治療開発研究室、千葉大・院医薬・分子腫瘍生物学、千葉県がんセ・研・がん遺伝創薬研究室)

J-3005 Role of Protein kinase D (PKD) as a target for gastrointestinal cancer treatment

Yoichi Matsuo, Goro Ueda, Kan Omi, Yuichi Hayashi, Hiroyuki Imafuji, Kenta Saito, Ken Tsuboi, Mamoru Morimoto, Ryo Ogawa, Masayasu Hara, Hiroki Takahashi, Nobuo Ochi, Shuji Takiguchi (Dept. Gastroenterological Surg., Nagoya City Univ.) 消化器癌に対する PKD の役割と分子標的治療の可能性 松尾 洋一、上田 悟郎、大見 関、林 祐一、今藤 裕之、齊藤 健太、坪井 謙、森本 守、小川 了、原 賢康、高橋 広城、越智 靖夫、瀧口 修司 (名市大・医・消化器外科)

J-3006 Impact of comprehensive cancer-stromal interactome analysis in pancreatic cancer

Yukihiko Hiroshima, Rika Kasajima, Yayoi Kimura, Daisuke Komura, Shumpei Ishikawa, Yasushi Ichikawa, Itaru Endo, Yohei Miyagi (Kanagawa Cancer Ctr. Res. Inst., Advanced Med. Res. Ctr., Yokohama City Univ., Dept. Prevention Med., Tokyo Univ., Dept. Clin. Oncology, Yokohama City Univ., Dept. Gastroenterological Surg., Yokohama City Univ.) 膵癌における包括的癌-間質インタラクトーム解析 廣島 幸彦、笠島 理加、木村 弥生、河村 大輔、石川 俊平、市川 靖史、遠藤 裕、宮城 洋平 (神奈川県がんセ・臨床研、横浜市大・先端医学科学研究セ、東京大・衛生学、横浜市大・がん総合医科学・臨床腫瘍科、横浜市大・消化器・腫瘍外科学)

INFORMATION DAY 1 AM LS PM Posters DAY 2 AM LS PM Posters DAY 3 AM LS PM Posters INDEX Authors Keywords Chairpersons

## Japanese Oral Sessions

Room 12 Sep. 28 (Sat.) 9:00-10:15

J

### J13 Growth factor and cytokine 増殖因子・サイトカイン

Chairperson: Tomoya Yamaguchi (Dept. Cancer Biol., Grad. Sch. Med. Sci., Kumamoto Univ.)

座長: 山口 知也 (熊本大・院生命科学・がん生物)

- J-3007 A novel lncRNA *ELIT-1* promotes Snail induction and EMT via TGFβ signaling**  
Masatoshi Kitagawa<sup>1</sup>, Satoshi Sakai<sup>1,2</sup> (<sup>1</sup>Dept. Mol. Biol. Hamamatsu Univ. Scho. Med., <sup>2</sup>Dept. Virology. Hamamatsu Univ. Scho. Med.)  
新規 lncRNA *ELIT-1* は TGFβ シグナリングを介して Snail の発現と EMT の誘導に関与する  
北川 雅敏<sup>1</sup>、酒井 聡<sup>1,2</sup> (浜松医大・医・分子生物、<sup>2</sup>浜松医大・医・ウイルス学)
- J-3008 Targeting FSTL1 in treatment of tongue cancer**  
Yamato Ogiwara<sup>1</sup>, Takahiro Miyamoto<sup>1</sup>, Yoshitaka Homma<sup>2</sup>, Chie Kudo-Saito<sup>1</sup> (<sup>1</sup>Dept. Immune Med., Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Head & Neck Med. Oncology, Natl. Cancer Ctr. Hosp.)  
FSTL1 を標的とした新たな舌がん治療戦略  
荻原 大和<sup>1</sup>、宮本 敬大<sup>1</sup>、本間 義崇<sup>2</sup>、工藤 千恵<sup>1</sup> (国立がん研セ・研・免疫創薬部門、<sup>2</sup>国立がん研セ・中央病院・頭頸部内科)
- J-3009 Mechanism of breast duct and basement membrane disruption caused by estradiol**  
Yu Deng<sup>1</sup>, Akira Nakanishi<sup>1</sup>, Yoshio Miki<sup>1,2</sup> (<sup>1</sup>Dept. Mol. Genet., Tokyo Med&Dent. Univ., <sup>2</sup>Dept. Mol. Diagnosis, JFCR, The Cancer Inst.)  
エストロゲンによる乳管及び基底膜崩壊機構の解析  
YU DENG<sup>1</sup>、中西 啓<sup>1</sup>、三木 義男<sup>1,2</sup> (東京医歯大・難研・分子遺伝、<sup>2</sup>(公財) がん研・研・遺伝子診断)
- J-3010 TGF-β-induced cell cycle arrest is associated with increased migration and metastasis of oral squamous carcinoma cells**  
Kazuki Takahashi<sup>1</sup>, Katarzyna A. Inoue<sup>1</sup>, Atsushi Kaida<sup>2</sup>, Kei Takahashi<sup>3</sup>, Shimpei Kubota<sup>3</sup>, Akinari Sugauchi<sup>4</sup>, Toshihiro Uchihashi<sup>4</sup>, Susumu Tanaka<sup>4</sup>, Mikihiko Kogo<sup>4</sup>, Masahiko Miura<sup>2</sup>, Kohei Miyazono<sup>3</sup>, Tetsuro Watabe<sup>1</sup> (<sup>1</sup>Dept. Biochem., Tokyo Med. & Dent. Univ., <sup>2</sup>Dept. Oral. Radiation. Onc., Tokyo Med. & Dent. Univ., <sup>3</sup>Dept. Mol. Pathol., Grad. Sch. Med., Tokyo Univ., <sup>4</sup>1st Dept. Oral & Maxillofacial Surg., Sch. Dent., Osaka Univ.)  
TGF-β により細胞周期が停止した口腔扁平上皮がん細胞の運動能ならびに転移能は亢進する  
高橋 和樹<sup>1</sup>、井上 カタジナアンナ<sup>1</sup>、戒田 篤志<sup>2</sup>、高橋 恵生<sup>3</sup>、久保 田 晋平<sup>3</sup>、須河内 昭成<sup>4</sup>、内橋 俊大<sup>4</sup>、田中 晋<sup>4</sup>、古郷 幹彦<sup>4</sup>、三浦 雅彦<sup>2</sup>、宮園 浩平<sup>3</sup>、渡部 徹郎<sup>1</sup> (東京医歯大・院医歯・硬組織病態生化学、<sup>2</sup>東京医歯大・院医歯・口腔放射線腫瘍学、<sup>3</sup>東京大・院医・分子病理学、<sup>4</sup>大阪大・院歯・口腔外科学第一教室)
- J-3011 Improvement of Cancer associated Cachexia and Muscle wasting by the minimum Peptide from mouse Myostatin Prodomain**  
Fumiko Itoh<sup>1</sup>, Susumu Itoh<sup>2</sup> (<sup>1</sup>Lab. of Cardiovasc. Tokyo Univ. Pharm. Life Sci., <sup>2</sup>Lab. Biochem., Showa Pharm. Univ.)  
ミオスタチン前駆体由来のミオスタチン阻害最小ペプチドはがん悪液質を改善する  
伊東 史子<sup>1</sup>、伊東 進<sup>2</sup> (東薬大・生命・心血管医科学、<sup>2</sup>昭薬大・生化学)
- J-3012 Specific Detection of Active HGF for Diagnosis Reflecting Activation Status of HGF-MET Signaling by Macrocyclic Peptide**  
Hiroki Sato<sup>1</sup>, Katsuya Sakai<sup>1</sup>, Ryu Imamura<sup>1</sup>, Hidefumi Mukai<sup>2</sup>, Yasuyoshi Watanabe<sup>3</sup>, Seiji Yano<sup>3</sup>, Kunio Matsumoto<sup>1</sup> (<sup>1</sup>Div. Tumor Dyn. Regul., Cancer Res. Inst., Kanazawa Univ., <sup>2</sup>Lab. Mol. Deliv. & Imaging Technol., Biosyst. Dyn. Res., RIKEN, <sup>3</sup>Lab. Pathophysiol. & Health Sci., Biosyst. Dyn. Res., RIKEN, <sup>4</sup>Div. Med. Oncology, Cancer Res. Inst., Kanazawa Univ.)  
活性型 HGF の選択的検出による MET 活性化状態の診断  
佐藤 拓輝<sup>1</sup>、酒井 克也<sup>1</sup>、今村 龍<sup>1</sup>、向井 英史<sup>2</sup>、渡辺 恭良<sup>3</sup>、矢野 聖二<sup>4</sup>、松本 邦夫<sup>1</sup> (金沢大・がん研・腫瘍制御、<sup>2</sup>理研・生命機能科学・分子送達、<sup>3</sup>理研・生命機能科学・健康病態科学、<sup>4</sup>金沢大・がん研・腫瘍内科)

## English Oral Sessions

Room 12 Sep. 28 (Sat.) 10:15-11:30

E

### E17-1 Drug delivery system ドラッグデリバリーシステム

Chairperson: Mitsunobu Kano (Grad. Sch. of Interdisciplinary Sci. & Engineering in Health Systems, Okayama Univ.)

座長: 狩野 光伸 (岡山大・院ヘルスシステム統合科学研究科)

- E-3055 Collagen affinity improves efficacy and safety of checkpoint antibody and cytokine cancer immunotherapy**  
Jun Ishihara, Ako Ishihara (Univ. Chicago Inst. Mol. Eng.)  
コラーゲン親和性付与によるチェックポイント阻害抗体とサイトカインの副作用低減と抗腫瘍効果の増大  
石原 純、石原 亜香 (シカゴ大 Inst. Mol. Eng.)
- E-3056 Reverse translational research with extracellular vesicles for the abscopal effect of oncolytic adenovirotherapy**  
Yoshihiko Kakiuchi<sup>1</sup>, Shinji Kuroda<sup>1</sup>, Nobuhiko Kanaya<sup>1</sup>, Kento Kumon<sup>1</sup>, Tomoko Tsumura<sup>1</sup>, Masashi Hashimoto<sup>1</sup>, Satoru Kikuchi<sup>1</sup>, Masahiko Nishizaki<sup>1</sup>, Shunsuke Kagawa<sup>1</sup>, Hiroshi Tazawa<sup>1</sup>, Yasuo Urata<sup>2</sup>, Toshiyoshi Fujiwara<sup>1</sup> (<sup>1</sup>Dept. Gastroenterol. Surg., Okayama Univ. Grad. Sch. med., <sup>2</sup>Oncolys BioPharma, Inc.)  
腫瘍融解ウイルス療法にて認められるアブスコパル効果と細胞外小胞の関連性についてのリバーstransレーションナリサーチ  
垣内 慶彦<sup>1</sup>、黒田 新士<sup>1</sup>、金谷 信彦<sup>1</sup>、公文 剣斗<sup>1</sup>、津村 朋子<sup>1</sup>、橋本 将志<sup>1</sup>、菊地 寛次<sup>1</sup>、西崎 正彦<sup>1</sup>、香川 俊輔<sup>1</sup>、田澤 大<sup>1</sup>、浦田 泰生<sup>2</sup>、藤原 俊義<sup>1</sup> (岡山大・院・消化器外科学、<sup>2</sup>オンコリスバイオファーマ)
- E-3057 Augmentation of EPR effect and therapeutic efficacy of nanomedicine by carbon monoxide generating agents**  
Jun Fang<sup>1</sup>, Rayhanul Islam<sup>1</sup>, Waliul Islam<sup>2</sup>, Hiroshi Maeda<sup>2,3</sup> (<sup>1</sup>Faculty Pharm Sci., Sojo Univ., <sup>2</sup>Dept. Microbiol., Grad. Sch. Med. Sci., Kumamoto Univ., <sup>3</sup>BioDynamics Res. Foundation.)  
一酸化炭素による EPR 効果と抗がんメディスンの効果増強  
方 軍<sup>1</sup>、イスラム レーハヌール<sup>1</sup>、イスラム ワリウル<sup>2</sup>、前田 浩<sup>2,3</sup> (崇城大・薬、<sup>2</sup>熊本大・医・微生物学、<sup>3</sup>バイオダイナミックス研)
- E-3058 Importance of osmotic pressure for lymphatic drug delivery system**  
Radhika Mishra<sup>1,2</sup>, Ryoichi Fukumura<sup>1</sup>, Sukhbaatar Ariunbuyan<sup>1</sup>, Maya Sakamoto<sup>3</sup>, Shiro Mori<sup>3</sup>, Kiyoto Shiga<sup>4</sup>, Tetsuya Kodama<sup>1</sup> (<sup>1</sup>Grad. Sch. of Biomed. Engineering, Tohoku Univ., <sup>2</sup>Indian Inst. Sci. Edu. Res. Bhopal, <sup>3</sup>Tohoku Univ. Hosp., <sup>4</sup>Iwate Med. I Univ.)  
リンパ行性薬剤送達法における浸透圧の重要性  
ミシュラ ラディカ<sup>1,2</sup>、福村 凌一<sup>1</sup>、アリウンブヤン スフバートル<sup>1</sup>、阪本 真弥<sup>3</sup>、森 士朗<sup>3</sup>、志賀 清人<sup>4</sup>、小玉 哲也<sup>1</sup> (東北大・医工学研究科、<sup>2</sup>インド科学研究教育大・ポータル校、<sup>3</sup>東北大・病院、<sup>4</sup>岩手医大)
- E-3059 K252a-Homolog-Encapsulated Nanomedicine Overcomes Drug Resistance in Osimertinib-Resistant Lung Cancer**  
Hiroaki Kinoh<sup>1</sup>, Hitoshi Shibasaki<sup>1,2</sup>, Sabina Quader<sup>1</sup>, Xueying Liu<sup>1</sup>, Horacio Cabral<sup>3</sup>, Kazunori Kataoka<sup>1,4</sup> (<sup>1</sup>Innovation Ctr. of Nanomedicine, <sup>2</sup>Univ. Tokyo Dept. Otolaryngology, <sup>3</sup>Univ. Tokyo Bioengineering, <sup>4</sup>Univ. Tokyo Inst. for Future Initiatives)  
K252a ホモログ封入 pH 応答性ナノミセルは、オシメルチニブ耐性肺癌同所モデルに対して高い効果を示す  
喜納 宏昭<sup>1</sup>、柴崎 仁志<sup>1,2</sup>、クワドラ サビーナ<sup>1</sup>、劉 学瑩<sup>1</sup>、カブラル オラシオ<sup>3</sup>、片岡 一則<sup>1,4</sup> (ナノ医療イノベーションセ、<sup>2</sup>東京大・耳鼻科、<sup>3</sup>東京大・工学・バイオエンジン、<sup>4</sup>東京大・未来ビジョン研究セ)
- E-3060 Tumor-selective boron neutron capture therapy (BNCT) by using boron-containing nanodrug based on EPR effect**  
Waliul Islam<sup>1,4</sup>, Jun Fang<sup>2</sup>, Hirofumi Yamamoto<sup>3</sup>, Hiroshi Maeda<sup>1,4</sup> (<sup>1</sup>Dept. Microb. Kumamoto Univ. Med. Sch., <sup>2</sup>Fac. Pharm. Sci., Sojo Univ., <sup>3</sup>Div. Health Sci., Sch. Med. Osaka Univ., <sup>4</sup>BioDynamics Res. Fdn., Kumamoto)

English Oral Sessions

Room 13 Sep. 28 (Sat.) 9:00-10:15 E

**E4-3** **Cancer related genes: identification and signaling mechanism**  
がん関連遺伝子：新規同定とシグナル伝達機構

Chairperson: Yasuhiro Minami (Grad. Sch. Med., Kobe Univ.)  
座長：南 康博（神戸大・院医）

- E-3013 Inhibition of SHP2 promotes the tyrosyl phosphorylation of KRAS and suppresses the pancreatic cancer growth**  
Yoshihito Kano<sup>1,2</sup>, Teklab Gebregiworgis<sup>3</sup>, Christopher Marshall<sup>3</sup>, Mitsuhiro Ikura<sup>3</sup>, Michael Ohh<sup>2</sup> (1Tokyo Med. & Dent. Univ., Dept. Clin. oncology, 2Univ. of Toronto, Dept. Lab. Med. & Pathobiology, 3Princess Margaret Cancer Ctr.)  
チロシンリン酸化モデルに基づく KRAS 変異腫瘍に対する治療戦略  
加納 嘉人<sup>1,2</sup>, Teklab Gebregiworgis<sup>3</sup>, Christopher Marshall<sup>3</sup>, Mitsuhiro Ikura<sup>3</sup>, Michael Ohh<sup>2</sup> (1東京医歯大・臨床腫瘍学分野, 2トロント大・医, 3プリンセスマーガレットがんセンター)
- E-3014 Small Molecule-Based Approaches in KRAS-Mutant Lung Cancer Cells**  
Iwao Shimomura<sup>1,2</sup>, Yuji Tada<sup>2,3</sup>, Koichiro Tatsumi<sup>2</sup>, Takahiro Ochiya<sup>4</sup>, Yusuke Yamamoto<sup>1</sup> (1Div. Cell. Sig., Natl. Cancer Ctr. Res. Inst., 2Dept. Resp., Grad. Sch. Med., Chiba Univ., 3Dept. Resp., Sch. Med., Int. Univ. Health & Welfare., 4Dept. Mol. Cell. Med., Inst. Med. Sci., Tokyo Med. Univ.)  
KRAS 変異肺がん細胞における低分子化合物ライブラリーを用いた新規治療探索  
下村 巖<sup>1,2</sup>, 多田 裕司<sup>2,3</sup>, 巽 浩一郎<sup>2</sup>, 落谷 孝広<sup>4</sup>, 山本 雄介<sup>1</sup> (1国立がん研セ・研・細胞情報, 2千葉大・院医・呼吸器内科学, 3国際医療福祉大・医・呼吸器内科, 4東京医大・医総研・分子細胞治療)
- E-3015 p53 gene polymorphism and the cervical cancer risk in the Bangladeshi women**  
Mohammad Safiqul Islam, Md. Saddam Hussain, Md. Salah U Millat,, Mohammad Sarowar Uddin, Shafayet Ahmed Siddiqui, Md. Giash Uddin, Md. Shahid Sarwar (Dept. Pharm., Noakhali Sci. & Tech. Univ.)
- E-3016 WNT1, a target of miR-34a, promotes cervical squamous cell carcinoma proliferation and invasion**  
Baohua Li, Xuedong Guo, Na Li, Qin Chen, Junhua Shen, Xiaoxiu Huang, Genping Huang, Fenfen Wang (Dept. of Gynecologic Oncology, Zhejiang Univ.)
- E-3017 Characterization of the oncogenic role of rare KRAS variants identified in colorectal cancer patients**  
Yuk Y. Chan, Yuk-Yu Chan, Joanna H.M. Tong, Wing-Po Chak, Raymond W.M. Lung, Chit Chow, Kwok-Wai Lo, Ka-Fai To (Dept. Anatomical & Cell. Path., CUHK)
- E-3018 Targeting cell cycle machinery for treatment of primary effusion lymphoma**  
Gunya Sittithumcharee, Ryusho Kariya, Seiji Okada (Div. Hematopoiesis, Joint Res. Cent. Retrovirus Infect., Kumamoto Univ.)

Japanese Oral Sessions

Room 13 Sep. 28 (Sat.) 10:15-11:30 J

**J4** **Cancer related genes: functional analysis and novel therapeutic strategies**  
がん関連遺伝子：機能解析と新規治療戦略

Chairperson: Kyoko Hida (Vascular Biol. & Mol. Path. Grad. Sch. of Dent. Med., Hokkaido Univ.)  
座長：樋田 京子（北海道大・院歯・血管生物分子病理学教室）

- J-3013 The expression of glutamate/cystine antiporter SLC7A11/xCT correlates with p53 status in non-small cell lung cancers**  
Dage Liu<sup>1</sup>, Nariyasu Nakashima<sup>1</sup>, Takayuki Nakano<sup>1</sup>, Xia Zhang<sup>2</sup>, Hiroyasu Yokomise<sup>1</sup> (1Dept. Thoracic Surg. Faculty of Med., Kagawa Univ., 2Dept. Urology, Faculty of Med., Kagawa Univ.)  
非小細胞肺癌におけるアミノ酸トランスポーター SLC7A11/xCT 発現と p53 変異との関連  
劉 大革<sup>1</sup>, 中島 成泰<sup>1</sup>, 中野 貴之<sup>1</sup>, 張 霞<sup>2</sup>, 横見瀬 裕保<sup>1</sup> (1香川大・医・呼吸器外科学, 2香川大・医・泌尿器科学)
- J-3014 Clinical significance of Wnt/PCP/Ascl2/c-myc axis in colon cancer**  
Kazuko Yokota<sup>1</sup>, Yoko Tanaka<sup>1</sup>, Hiroki Harada<sup>1</sup>, Takeshi Kaida<sup>1</sup>, Ken Kojo<sup>1</sup>, Hirohisa Miura<sup>1</sup>, Takahiro Yamanashi<sup>1</sup>, Takeo Sato<sup>1</sup>, Takatoshi Nakamura<sup>1</sup>, Masahiko Watanabe<sup>2</sup>, Keishi Yamashita<sup>3</sup> (1Surg. Kitasato Univ. Sch. Med., 2Kitasato Univ. Kitasato. Ins. Hosp., 3Div. Adv. Surg. Onc. New. Med. Fro.)  
結腸癌における Wnt/PCP/Ascl2/c-myc 軸の臨床的意義  
横田 和子<sup>1</sup>, 田中 蓉子<sup>1</sup>, 原田 宏輝<sup>1</sup>, 甲斐田 武志<sup>1</sup>, 古城 憲<sup>1</sup>, 三浦 啓寿<sup>1</sup>, 山梨 高広<sup>1</sup>, 佐藤 武郎<sup>1</sup>, 中村 隆俊<sup>1</sup>, 渡邊 昌彦<sup>2</sup>, 山下 健史<sup>3</sup> (1北里大・医・外科, 2北里大・北里研・病院, 3北里大・医・新世紀・外科腫瘍)
- J-3015 Anti-apoptotic effect by the suppression of IRF1 as a downstream of Wnt/β-catenin signaling in colorectal cancer cells**  
Tomoyuki Ohsugi<sup>1</sup>, Kiyoshi Yamaguchi<sup>1</sup>, Tsuneo Ikenoue<sup>1</sup>, Kiyoko Takane<sup>1</sup>, Masaru Shinozaki<sup>2</sup>, Hideaki Yano<sup>3</sup>, Giichiro Tsuruta<sup>2</sup>, Yoichi Furukawa<sup>1</sup> (1Div. Clin. Genome res., Imsut. Med. Sci., Univ. Tokyo, 2Div. Surg., Imsut. Med. Sci., Univ. Tokyo, 3Natl. Ctr. Glob. Heal. Med.)  
大腸癌において Wnt/β-カテニンシグナルはインターフェロン制御因子 1 (IRF1) を制御する  
大杉 友之<sup>1</sup>, 山口 貴志<sup>2</sup>, 池上 恒雄<sup>1</sup>, 高根 希世<sup>1</sup>, 篠崎 大<sup>2</sup>, 矢野 秀朗<sup>3</sup>, 釣田 義一郎<sup>2</sup>, 古川 洋一<sup>1</sup> (1東京大・医科研・臨床ゲノム, 2東京大・医科研・外科, 3国立国際・外科)
- J-3016 A novel HIF-1 activator, HPF-4, promotes invasion and growth of p53-deficient cancers**  
Sho Koyasu<sup>1,2</sup>, Shigeto Nishikawa<sup>3</sup>, Toshi Menju<sup>3</sup>, Hiroshi Harada<sup>1</sup> (1Lab. Cancer Cell Biol., Grad. Sch. Biostudies, Kyoto Univ., 2Dept. Radiology, Grad. Sch. Med., Kyoto Univ., 3Dept. Thoracic Surg., Grad. Sch. Med., Kyoto Univ.)  
p53 機能欠低下で浸潤増殖を促進する新規 HIF-1 活性化因子 HPF-4 について  
子安 翔<sup>1,2</sup>, 西川 滋人<sup>3</sup>, 毛受 暁史<sup>3</sup>, 原田 浩<sup>1</sup> (1京都大・院生命・がん細胞生物学, 2京都大・院医・放射線医学, 3京都大・院医・呼吸器外科学)
- J-3017 Protective role of endothelial p53 in stress-induced vascular malignancy**  
Masataka Yokoyama, Tetsutoshi Nakayama, Hidekazu Nagano, Naoko Hashimoto, Tomoaki Tanaka (Dept. Mol. Diagnosis, Chiba Univ. Grad. Sch. of Med.)  
血管内皮細胞における p53 が果たす抗血管腫瘍効果  
横山 真隆, 中山 哲俊, 永野 秀和, 橋本 直子, 田中 知明 (千葉大・院医・分子病態解析学)
- J-3018 ARVCF, a novel p53 target, modulates the splicing landscape and supports the tumor suppressive function of p53**  
Masashi Idogawa, Natsumi Suzuki, Shoichiro Tange, Yasushi Sasaki, Takashi Tokino (Med. Genome Sci., Inst. Frontier Med., Sapporo Med. Univ.)  
新規 p53 標的遺伝子 ARVCF はスプライシング変化を誘導し腫瘍抑制に寄与する  
井戸川 雅史, 鈴木 菜摘, 丹下 正一朗, 佐々木 泰史, 時野 隆至 (札幌医大・フロンティア研・ゲノム)

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## English Oral Sessions

Room 14 Sep. 28 (Sat.) 9:00-10:15

E

### E16-1 Signal transduction inhibitors / kinase inhibitors (1) シグナル伝達阻害剤・キナーゼ阻害剤 (1)

Chairperson: Seiji Yano (Div. Med. Oncology Cancer Res. Inst., Kanazawa Univ.)  
座長: 矢野 聖二 (金沢大・がん進展制御研・腫瘍内科)

- E-3019 DS-6051b, a next-generation ROS1/NTRK inhibitor overcomes crizotinib resistant ROS1-G2032R in preclinical models**  
Ryohei Katayama<sup>1</sup>, Bo Gong<sup>1</sup>, Makoto Nishio<sup>2,3</sup>, Naoya Fujita<sup>3</sup> (<sup>1</sup>Div. Experiment. Chemother., Cancer Chemother. Ctr., JFCR, <sup>2</sup>Thoracic Oncol Dept., Cancer Inst. Hosp., JFCR, <sup>3</sup>Cancer Chemother. Ctr., JFCR)  
次世代 ROS1/NTRK 阻害薬 DS-6051b による Crizotinib 耐性の克服  
片山 量平<sup>1</sup>, キョウ 博<sup>1</sup>, 西尾 誠人<sup>2,3</sup>, 藤田 直也<sup>3</sup> (<sup>1</sup>(公財) がん研・化療セ・基礎研究部, <sup>2</sup>(公財) がん研・有明病院・呼吸器セ, <sup>3</sup>(公財) がん研・化療セ)
- E-3020 Elucidation of Mechanism of Actions Leading to Apoptosis in Colorectal Cancer Cells Induced by NCB-0846**  
Mari Masuda<sup>1</sup>, Naoko Goto<sup>1</sup>, Yuko Uno<sup>2</sup>, Hideki Moriyama<sup>3</sup>, Tetsuya Sekita<sup>1</sup>, Masaaki Sawa<sup>2</sup>, Teshi Yamada<sup>1</sup> (<sup>1</sup>Div. Cell. Signaling, Natl. Cancer Ctr, Res. Inst., <sup>2</sup>Carna Biosci., Inc.)  
TNIK 阻害剤 NCB-0846 によるアポトーシス誘導機序の解明  
増田 万里<sup>1</sup>, 後藤 尚子<sup>1</sup>, 宇野 佑子<sup>2</sup>, 森山 英樹<sup>2</sup>, 関田 哲也<sup>1</sup>, 澤 匡明<sup>2</sup>, 山田 哲司<sup>1</sup> (<sup>1</sup>国立がん研セ・細胞情報学分野, <sup>2</sup>カルナビオサイエンス (株))
- E-3021 Identification of natural compounds target Annexin A2 with an anti-cancer effect**  
Yu-Shi Wang, Ying-Hua Jin (MEE, college of life sciences, Jilin Univ.)
- E-3022 Prioritizing drug candidates in precision oncology: A case study using Thai and Japanese Cholangiocarcinoma cell lines**  
Somponnat Sampattavanich<sup>1</sup>, Supawan Jammongsong<sup>1</sup>, Patipark Kueanjinda<sup>1</sup>, Pongsakorn Buraphat<sup>1</sup>, Phuwanat Sakornsakolpat<sup>1</sup>, Kulthida Vaeteewoottacharn<sup>2</sup>, Seiji Okada<sup>3</sup>, Siwanon Jirawatnotai<sup>1</sup> (<sup>1</sup>Dept. Pharm., Fac. of Med., Siriraj Hop., Mahidol Univ., <sup>2</sup>Dept., of Biochem., Kon Kaen Univ., <sup>3</sup>Ctr. for AIDS Res., Kumamoto Univ.)
- E-3023 Acquired CDK4/6 inhibitor resistance mechanisms in cholangiocarcinoma uncovered by proteomic-drug library screening**  
Orawan Suppramote<sup>1</sup>, Sunisa Prasopporn<sup>1</sup>, Jiradej Makjaroen<sup>2</sup>, Trairak Pisitkun<sup>2</sup>, Patipark Kueanjinda<sup>1</sup>, Seiji Okada<sup>3</sup>, Somponnat Sampattavanich<sup>2</sup>, Siwanon Jirawatnotai<sup>1</sup> (<sup>1</sup>Dept. Pharmacology, Siriraj Hosp., Mahidol Univ., <sup>2</sup>Ctr. of Excellence in Systems Biol., Chulalongkorn Univ., <sup>3</sup>Div. Hematopoiesis Ctr. for AIDS Res., Kumamoto Univ.)
- E-3024 Drug Screenings of Inhibiting Lung Cancer Angiogenesis by VEGF Promoter Reporter Gene Assay**  
Yi-Hua Lai<sup>1,5</sup>, Yu-Lin Ai<sup>1</sup>, Chi-Chung Wang<sup>2</sup>, Meng-Feng Tsai<sup>3</sup>, Sheng-Fang Su<sup>4</sup>, Huci-Wen Chen<sup>5</sup>, Jeremy J.W. Chen<sup>1</sup> (<sup>1</sup>Inst. of Biomed. Sci., NCHU, <sup>2</sup>Grad. Inst. of Biomed. Pharma. Sci., FJCU, <sup>3</sup>Dept. Mol. Biotech., DYU, <sup>4</sup>Grad. Inst. of Oncol., NTUCM, <sup>5</sup>Grad. Inst. of Toxicol., NTUCM, <sup>5</sup>Div. of Immunol. and Rheumatol., CMUH)

## Japanese Oral Sessions

Room 14 Sep. 28 (Sat.) 10:15-11:30

J

### J16 Signal transduction inhibitors / kinase inhibitors (2) シグナル伝達阻害剤・キナーゼ阻害剤 (2)

Chairperson: Eishi Ashihara (Kyoto Pharm. Univ.)  
座長: 芦原 英司 (京都薬大)

- J-3019 Targeting metastasis-associated inflammation in renal cancer by BET inhibitor**  
Jun Nishida<sup>1</sup>, Yusuke Tamura<sup>1</sup>, Kei Takahashi<sup>1</sup>, Daizo Koinuma<sup>1</sup>, Shogo Ehata<sup>1,2,3</sup>, Kohei Miyazono<sup>1</sup> (<sup>1</sup>Dept. Mol. Pathol., Grad. Sch. Med., Univ. Tokyo, <sup>2</sup>Dept. Med. Genomics, Grad. Sch. Med., Univ. Tokyo, <sup>3</sup>Environ. Sci. Ctr., Univ. Tokyo)  
BET 阻害剤の炎症を標的とした腎がん転移抑制効果  
西田 純<sup>1</sup>, 田村 佑介<sup>1</sup>, 高橋 恵生<sup>1</sup>, 鯉沼 代造<sup>1</sup>, 江幡 正悟<sup>1,2,3</sup>, 宮園 浩平<sup>1</sup> (<sup>1</sup>東京大・院医・分子病理, <sup>2</sup>東京大・院医・ゲノム医学, <sup>3</sup>東京大・環境安全研究セ)
- J-3020 Targeting casein kinase 2 disrupts lysosomal homeostasis via dysregulation of insulin-like growth factor 2 receptor**  
Takashi Takeda<sup>1,2</sup>, Masayuki Komatsu<sup>1</sup>, Fumiko Chiwaki<sup>1</sup>, Rie Komatsuzaki<sup>1</sup>, Yusuke Kobayashi<sup>2</sup>, Eiichiro Tominaga<sup>2</sup>, Kouji Banno<sup>2</sup>, Daisuke Aoki<sup>2</sup>, Hiroki Sasaki<sup>1</sup> (<sup>1</sup>Dept. Trans. Oncol., Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Obs. & Gynecol., Keio Univ., Sch Med.)  
カゼインキナーゼ2の阻害は、インスリン様増殖因子2受容体の調整不全を介してライソソーム機能不全を導く  
竹田 貴<sup>1,2</sup>, 小松 将之<sup>1</sup>, 千脇 史子<sup>1</sup>, 小松崎 理絵<sup>1</sup>, 小林 佑介<sup>2</sup>, 富永 英一郎<sup>2</sup>, 阪埜 浩司<sup>2</sup>, 青木 大輔<sup>2</sup>, 佐々木 博己<sup>1</sup> (<sup>1</sup>国立がん研セ・研・シース探索, <sup>2</sup>慶應大・医・産婦)
- J-3021 Targeting BRAF V600E mutant colorectal cancer by drug repurposing**  
Yuki Shimizu<sup>1,2</sup>, Bo Gong<sup>1</sup>, Tomoko Oh-hara<sup>1</sup>, Satoshi Nagayama<sup>3</sup>, Naoya Fujita<sup>1,2,4</sup>, Ryohei Katayama<sup>1</sup> (<sup>1</sup>Div. Experiment. Chemother., Cancer Chemother. Ctr., JFCR, <sup>2</sup>Dept. CBMS, Grad. Sch. Front. Sci., Univ. of Tokyo, <sup>3</sup>Dept. Gastroenterological Surg., Cancer Inst. Hosp., JFCR, <sup>4</sup>Cancer Chemother. Ctr., JFCR)  
BRAF V600E 変異陽性大腸がんの有効な既存薬の発見  
清水 裕貴<sup>1,2</sup>, キョウ 博<sup>1</sup>, 大原 智子<sup>1</sup>, 長山 聡<sup>3</sup>, 藤田 直也<sup>1,2,4</sup>, 片山 量平<sup>1</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>(公財) がん研・有明病院・消化器外科, <sup>4</sup>(公財) がん研・化療セ)
- J-3022 YAP1 mediates survival of ALK-rearranged lung cancer cells treated with alectinib via pro-apoptotic protein regulation**  
Masatoshi Yamazoe<sup>1</sup>, Hiroaki Ozasa<sup>1</sup>, Takahiro Tsuji<sup>1</sup>, Koh Yoshigaki<sup>2</sup>, Yasushi Yoshimura<sup>2</sup>, Tomoko Funazo<sup>1</sup>, Hitomi Ajimizu<sup>1</sup>, Yuto Yasuda<sup>1</sup>, Takashi Nomizo<sup>1</sup>, Hironori Yoshida<sup>1</sup>, Yuichi Sakamori<sup>1</sup>, Young Hak Kim<sup>1</sup>, Toyohiro Hirai<sup>1</sup> (<sup>1</sup>Dept. Respir. Med., Grad. Sch. Med., Kyoto Univ., <sup>2</sup>Prod. Res. Dept., Kamakura Res. Lab., Chugai. Pharm. Co., Ltd)  
ALK 陽性肺がんのアレクチニブ治療からの逃避は、抗アポトーシス因子の調節を介した YAP1 により制御される  
山添 正敏<sup>1</sup>, 小笹 裕晃<sup>1</sup>, 辻 貴宏<sup>1</sup>, 古垣 耕<sup>2</sup>, 吉村 康史<sup>2</sup>, 船造 智子<sup>1</sup>, 味水 瞳<sup>1</sup>, 安田 有斗<sup>1</sup>, 野溝 岳<sup>1</sup>, 吉田 博徳<sup>1</sup>, 阪森 優一<sup>1</sup>, 金 永学<sup>1</sup>, 平井 豊博<sup>1</sup> (<sup>1</sup>京都大・医・呼吸器内科, <sup>2</sup>中外製薬 (株)・プロダクトリサーチ部)
- J-3023 Novel Biomarker and Development of Therapeutic Target for Squamous Cell Carcinoma**  
Susumu Rokudai<sup>1</sup>, Daiki Tanaka<sup>1</sup>, Akio Sugimoto<sup>1</sup>, Eisuke Horigome<sup>1</sup>, Yuji Kumakura<sup>2</sup>, Kimihiro Shimizu<sup>2</sup>, Kyoichi Kaira<sup>3</sup>, Ken Shirabe<sup>2</sup>, Masahiko Nishiyama<sup>1</sup> (<sup>1</sup>Mol. Pharmacology & Oncology, Gunma Univ., <sup>2</sup>General Surg. Sci., Gunma Univ., <sup>3</sup>Respiratory Med., Saitama Med. Univ.)  
STXBP の肺扁平上皮がんバイオマーカーの意義と分子標的治療の開発  
六代 範<sup>1</sup>, 田中 大暉<sup>1</sup>, 杉本 明生<sup>1</sup>, 堀込 瑛介<sup>1</sup>, 熊倉 裕二<sup>2</sup>, 清水 公裕<sup>2</sup>, 解良 恭一<sup>3</sup>, 調 憲<sup>2</sup>, 西山 正彦<sup>1</sup> (<sup>1</sup>群馬大・医・病態腫瘍薬理, <sup>2</sup>群馬大・医・総合外科セ, <sup>3</sup>埼玉医大・呼吸器外科)
- J-3024 A new class of p53-activating cancer therapeutics with minimum side effects**  
Kohichi Kawahara<sup>1</sup>, Takuto Kawahata<sup>1,2</sup>, Masatatsu Yamamoto<sup>1</sup>, Yoshinari Shinsato<sup>1</sup>, Tatsuhiko Furukawa<sup>1</sup> (<sup>1</sup>Dept. Mol. Onc. Grad. Sch. Med. Dent. Sci. Kagoshima Univ., <sup>2</sup>Dept. Chem. Biosci. Grad. Sch. Sci. Engin., Kagoshima Univ.)  
腫瘍細胞へ優先的に p53 応答を引き出す新たながん分子標的治療薬の創生  
河原 康一<sup>1</sup>, 川畑 拓斗<sup>1,2</sup>, 山本 雅達<sup>1</sup>, 新里 能成<sup>1</sup>, 古川 龍彦<sup>1</sup> (<sup>1</sup>鹿児島大・院医歯・分子腫瘍, <sup>2</sup>鹿児島大・院理工・生命化学)

English Oral Sessions

Room 15 Sep. 28 (Sat.) 9:00-10:15 E

E3-1 **Viral oncogenesis**  
ウイルス発がん

Chairperson: Tohru Kiyono (Div. Carcinogenesis & Cancer Prevention, Natl. Cancer Ctr. Res. Inst.)

座長: 清野 透 (国立がん研セ・研・発がん・予防研究分野)

E-3025 **Nuclear retention of human retroviral antisense RNAs caused by 3' LTR contributes to viral persistence**

Jun-ichirou Yasunaga<sup>1</sup>, Masao Matsuoka<sup>1,2</sup> (<sup>1</sup>Lab of Virus Control, INFRONT, Kyoto Univ., <sup>2</sup>Dept. Hematol, Rheumatol, Inf. Dis., Kumamoto Univ.)

レトロウイルスがコードするアンチセンス RNA の核局在はウイルスの持続感染に関与する

安永 純一郎<sup>1</sup>、松岡 雅雄<sup>1,2</sup> (<sup>1</sup>京都大・ウイルス・再生研・ウイルス制御、<sup>2</sup>熊本大・医・血液膠原病感染症内科)

E-3026 **RRM2 promotes RNA replication of HCV by protecting NS5B protein from hPLIC1-dependent proteasomal degradation**

Kyoko Kohara<sup>1</sup>, Kitabouchra<sup>1</sup>, Masayuki Sudoh<sup>2</sup>, Tsubasa Munakata<sup>3</sup>, Michinori Kohara<sup>3</sup> (<sup>1</sup>Joint Fac. Vet. Med., Kagoshima Univ., <sup>2</sup>RIKEN, <sup>3</sup>Tokyo Metropolitan Inst. of Med. Sci.)

RRM2 は NS5B の hPLIC1 依存性プロテアソーム分解を阻害して HCV の RNA 複製を亢進する

小原 恭子<sup>1</sup>、ブシュラ キタブ<sup>1</sup>、須藤 正幸<sup>2</sup>、棟方 翼<sup>3</sup>、小原 道法<sup>3</sup> (<sup>1</sup>鹿児島大・共同獣医、<sup>2</sup>理研、<sup>3</sup>東京都医学総合研)

E-3027 **Cloning and sequencing of Epstein-Barr virus clinical isolates derived from tonsillar tissues**

Teru Kanda (Div. Microbiol., Faculty Med. Tohoku Med. & Pharm. Univ.)

扁桃組織由来 EB ウイルス臨床株のクローニングと塩基配列解析  
神田 輝 (東北医科薬科大・医・微生物)

E-3028 **Lenalidomide inhibits proliferation of HTLV-1-infected cells through suppression of IRF4 and IL-10**

Mari Kannagi, Yoshiko Nagano, Takeru Yoneda, Jian-Chun Zhang, Takao Masuda, Atsuhiko Hasegawa (Dept. Immunotherapeutics, Grad. Sch., Tokyo Med. & Dent Univ.)

Lenalidomide は IRF4 と IL-10 の抑制を介して HTLV-1 感染細胞の増殖を抑制する

神奈木 真理、永野 佳子、米田 建、Jian-Chun Zhang、増田 貴夫、長谷川 温彦 (東京医歯大・院・免疫治療)

E-3029 **Epstein-Barr virus promotes oral squamous cell carcinoma progression via induction of glycolysis**

Chukkris Heawchaiyaphum<sup>1,2,4</sup>, Tipaya Ekalaksananan<sup>1,4</sup>, Atri Burassakarn<sup>1,2,4</sup>, Hisashi Iizasa<sup>2</sup>, Yuichi Kanehiro<sup>2</sup>, Tohru Kiyono<sup>3</sup>, Hironori Yoshiyama<sup>2</sup>, Chamsai Pientong<sup>4,5</sup> (<sup>1</sup>Dept. Microbiol, Fac. of Med., Khon Kaen Univ., <sup>2</sup>Dept. Microbiol, Fac. of Med., Shimane Univ., <sup>3</sup>Div. Carcinog & Cancer Prev., Natl. Cancer Ctr. Res. Inst., <sup>4</sup>HEC Res., Fac. of Med., Khon Kaen Univ.)

E-3030 **Identification of candidate biomarkers of HPV-associated sinonasal squamous cell carcinoma using LC-MS/MS**

Thawaree Nukpook<sup>1,2</sup>, Chamsai Pientong<sup>1,2</sup>, Tipaya Ekalaksananan<sup>1,2</sup>, Sittiruk Roytrakul<sup>3</sup>, Watchareporn Teeramatwanich<sup>4</sup>, Natcha Patarapadungkit<sup>5</sup>, Patravoot Vatanasapt<sup>4</sup> (<sup>1</sup>Khon Kaen Univ., Dept. Microbiology, Faculty of Med., Thailand, <sup>2</sup>Khon Kaen Univ., HPV & EBV & carcinogenesis research group, Thailand, <sup>3</sup>Natl. Ctr. for Genetic Engineering & Biotechnology (BIOTEC), Thailand, <sup>4</sup>Khon Kaen Univ., Dept. Otorhinolaryngology, Faculty of Med., Thailand, <sup>5</sup>Khon Kaen Univ., Dept. Path., Faculty of Med., Thailand)

English Oral Sessions

Room 15 Sep. 28 (Sat.) 10:15-11:30 E

E14-11 **Basic and translational research in lung cancer**  
肺がん: 基礎と臨床

Chairperson: Hiromichi Ebi (Aichi Cancer Ctr. Res. Inst., Div. Mol. Therap.)

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

E-3031 **SHP2 inhibitor enhanced the effects of crizotinib in ROS1 rearranged lung cancer cell lines**

Hirohisa Kano<sup>1</sup>, Eiki Ichihara<sup>1</sup>, Naofumi Hara<sup>1</sup>, Hiromi Watanabe<sup>1</sup>, Kazuya Nishii<sup>1</sup>, Go Makimoto<sup>1</sup>, Kiichiro Ninomiya<sup>2</sup>, Toshio Kubo<sup>2</sup>, Kammei Rai<sup>2</sup>, Kadoaki Ohashi<sup>2</sup>, Yoshinobu Maeda<sup>1</sup>, Katsuyuki Kiura<sup>2</sup> (<sup>1</sup>Dept. Hematology, Oncology & Respiratory Med., Okayama Univ. Grad. Sch., <sup>2</sup>Dept. Allergy & Respiratory Med., Okayama Univ. Hosp.)

SHP2 阻害薬によるクリゾチニブの ROS1 陽性肺癌細胞阻害効果の増強

狩野 裕久<sup>1</sup>、市原 英基<sup>2</sup>、原 尚史<sup>1</sup>、渡邊 洋美<sup>1</sup>、西井 和也<sup>1</sup>、榎本 剛<sup>1</sup>、二宮 貴一郎<sup>2</sup>、久保 寿夫<sup>2</sup>、頼 冠名<sup>2</sup>、大橋 圭明<sup>2</sup>、前田 嘉信<sup>1</sup>、木浦 勝行<sup>2</sup> (<sup>1</sup>岡山大・院・血液・腫瘍・呼吸器内科学、<sup>2</sup>岡山大・病院・呼吸器・アレルギー内科)

E-3032 **Interaction between EGFR-TKI resistance and tumor immune microenvironment via miR-1 overexpression**

Sachiko Kawana<sup>1</sup>, Ryoko Saito<sup>2</sup>, Yasuhiro Miki<sup>2</sup>, Shunichi Sugawara<sup>1</sup>, Hironobu Sasano<sup>2</sup> (<sup>1</sup>Dept. Respiratory Med., Sendai Kousei Hosp., <sup>2</sup>Dept. Pathol., Tohoku Univ., Grad. Sch. Med.)

miR-1 過剰発現を介した EGFR-TKI 耐性と腫瘍免疫微小環境との相互作用についての検討

川名 祥子<sup>1</sup>、齋藤 涼子<sup>2</sup>、三木 康宏<sup>2</sup>、菅原 俊一<sup>1</sup>、笹野 公伸<sup>2</sup> (<sup>1</sup>仙台厚生病院・呼吸器内科、<sup>2</sup>東北大・院医・病理診断学)

E-3033 **Targeting MYCN amplification as a therapeutic approach for small cell lung cancer**

Hiroyuki Yoda<sup>1,2</sup>, Takayoshi Watanabe<sup>1</sup>, Hiroki Nagase<sup>2</sup>, Atsushi Takatori<sup>1</sup> (<sup>1</sup>Div. Innov. Cancer Therap., Chiba Cancer Ctr. Res. Inst., <sup>2</sup>Div. Cancer Genet., Chiba Cancer Ctr. Res. Inst.)

MYCN 遺伝子増幅を標的とした小細胞肺癌治療戦略

養田 裕行<sup>1,2</sup>、渡部 隆義<sup>1</sup>、永瀬 浩喜<sup>2</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)

E-3034 **Three microRNAs suppress the common target molecule to promote carcinogenesis in lung squamous cell carcinoma**

Sana Yokoi<sup>1</sup>, Soraro Kanematsu<sup>1</sup>, Yusuke Suenaga<sup>2</sup>, Asmaa Elzawahry<sup>3</sup>, Mamoru Kato<sup>3</sup>, Toshihiko Iizasa<sup>4</sup>, Yasumitsu Moriya<sup>4</sup> (<sup>1</sup>Div. Genetic Diagnostics, Chiba Cancer Ctr., <sup>2</sup>Div. Mol. Carcinogenesis, Chiba Cancer Ctr. Res. Inst., <sup>3</sup>Dept. Bioinformatics, Natl. Cancer Ctr., <sup>4</sup>Div. Thoracic Diseases, Chiba Cancer Ctr.)

肺扁平上皮癌において 3 つのマイクロ RNA が共通の標的分子を抑制することにより癌化に寄与する

横井 左奈<sup>1</sup>、兼松 宗太郎<sup>1</sup>、末永 雄介<sup>2</sup>、Asmaa Elzawahry<sup>3</sup>、加藤 護<sup>3</sup>、飯笹 俊彦<sup>4</sup>、守屋 康充<sup>4</sup> (<sup>1</sup>千葉県がんセ・遺伝子診断部、<sup>2</sup>千葉がんセ・研・発がん制御、<sup>3</sup>国立がん研セ・研・バイオインフォ、<sup>4</sup>千葉がんセ・呼吸器外科)

E-3035 **Monitoring circulating tumor DNA/RNA during Osimertinib treatment**

Stew-Kee Low<sup>1</sup>, Ken Uchibori<sup>2</sup>, Rie Hayashi<sup>1</sup>, Yoon Ming Chin<sup>1</sup>, Hiu Ting Chan<sup>1</sup>, Satoru Kitazono<sup>2</sup>, Noriko Yanagitani<sup>2</sup>, Atsushi Horiike<sup>2</sup>, Ryohei Katayama<sup>3</sup>, Makoto Nishio<sup>2</sup>, Yusuke Nakamura<sup>1</sup> (<sup>1</sup>Cancer Precision Med. Ctr., JFCR, <sup>2</sup>Dept. Thoracic Med. Oncology, JFCR, <sup>3</sup>Cancer Chemother. Ctr., JFCR)

E-3036 **Genetic alterations of pulmonary sarcomatoid carcinoma in Hong Kong**

Ling S. Chau (Dept. Anatomical & Cell. Path., CUHK)

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## English Oral Sessions

Room 16 Sep. 28 (Sat.) 9:00-10:15

E

E17-2 Natural anticancer compounds  
天然抗がん物質Chairperson: Manabu Kawada (Lab. of Oncology, Inst. of Microbial Chemistry)  
座長: 川田 学 (微化研・第1生物活性研究部)

- E-3037 Therapeutic Vulnerability of RB1-SUCLA2 co-deleted Prostate Cancer**  
Paing Linn, Susumu Kohno, Chiaki Takahashi (Div. Oncology & Mol. Biol., CRI, Kanazawa Univ.)  
RB1-SUCLA2 が同時欠損した前立腺がんの脆弱性  
リン パイン、河野 晋、高橋 智聡 (金沢大・がん研・腫瘍分子)
- E-3038 Analysis of cancer cell growth suppression and mechanism by melanin**  
Yoshiyuki Kawamoto, Kozue Takeda (Dept. Biomed. Sci., Coll. Life & Health Sci., Chubu Univ.)  
メラニンによる癌細胞増殖抑制と機序の解析  
川本 善之、武田 湖州恵 (中部大・生命健康・生命医科)
- E-3039 Shikonin exhibits anti-proliferative effects and down-regulates RUNX1-ETO expression in AML Kasumi-1 cells**  
Pei-Yi Chen<sup>1</sup>, Hsuan-Jan Chen<sup>2</sup>, Jui-Hung Yen<sup>2</sup> (<sup>1</sup>Ctr. of Med. Genetics, Hualien Tzu Chi Hosp., <sup>2</sup>Dept. of Mol. Biol. & Human Genetics, Tzu Chi Univ.)
- E-3040 Eurycomalactone Synergistically Enhances Cisplatin Sensitivity in Non-small Cell Lung Cancer via Suppressing NF-κB p65**  
Ariyaphong Wongnoppavich<sup>1</sup>, Nahathai Dukaew<sup>1</sup>, Kongthawat Chairatvit<sup>2</sup>, Pornsiri Pitchakarn<sup>1</sup> (<sup>1</sup>Dept. Biochem., Fac. of Med., Chiang Mai Univ. Thailand, <sup>2</sup>Dept. Oral Biol., Fac. of Dent., Mahidol Univ., Thailand)
- E-3041 Contribution of p38 MAPK pathway to norcantharidin-induced programmed cell death in human oral squamous cell carcinoma**  
Chi-Hyun Ahn, Sujung Choi, Jihoon Kim, Sung-Dae Cho (Dent. of Oral Pathology, Seoul Natl. Univ. Sch. of Dent.)
- E-3042 Ursolic acid inhibits proliferation and induces apoptosis through biomolecular changes in cholangiocarcinoma cells**  
Pornpattra Maphanao<sup>1,2,3</sup>, Chadamas Sakonsinsiri<sup>1</sup>, Raynoo Thanan<sup>1</sup>, Watcharin Loilome<sup>1,3</sup>, Sirinart Srchan<sup>2</sup> (<sup>1</sup>Dept. Biochem., Khon Kaen Univ., Thailand, <sup>2</sup>Synchrotron Light Res. Inst., Thailand, <sup>3</sup>Cholangiocarcinoma Res. Inst., Thailand)

## English Oral Sessions

Room 16 Sep. 28 (Sat.) 10:15-11:30

E

E17-3 New anticancer drugs and molecular mechanism  
新規抗がん剤とその分子メカニズムChairperson: Masaya Imoto (Keio Univ.)  
座長: 井本 正哉 (慶應大・理工)

- E-3043 Estimating genome-wide off-target effects for pyrrole-imidazole polyamide binding by pathway-based expression profiling**  
Jason Lin<sup>1,3</sup>, Sakthisri Krishnamurthy<sup>2</sup>, Hiroyuki Yoda<sup>2</sup>, Yoshinao Shinozaki<sup>1</sup>, Takayoshi Watanabe<sup>1,2</sup>, Nobuko Koshikawa<sup>1</sup>, Atsushi Takatori<sup>2</sup>, Paul Horton<sup>3,4,5</sup>, Hiroki Nagase<sup>1</sup> (<sup>1</sup>Lab. Cancer Genet., Chiba Cancer Ctr. Res. Inst., <sup>2</sup>Lab. Innov. Cancer Therap., Chiba Cancer Ctr. Res. Inst., <sup>3</sup>Art. Intel. Res. Ctr., Natl. Inst. Adv. Ind. Sci. Tech., <sup>4</sup>Dept. Comp. Sci. Info. Eng., Natl. Cheng Kung Univ., <sup>5</sup>Inst. Med. Informatics, Natl. Cheng Kung Univ.)  
発現プロファイリングによる DNA 副溝結合剤のピロールイミダゾールポリアミドでのオフターゲット及び副作用の評価・予測  
リン ジェイソン<sup>1,3</sup>、クリシュナムーティ サクテイシリ<sup>2</sup>、養田 裕行<sup>2</sup>、篠崎 喜博<sup>1</sup>、渡部 隆義<sup>1,2</sup>、越川 信子<sup>1</sup>、高取 敦志<sup>2</sup>、ホートン ポール<sup>3,4,5</sup>、永瀬 浩喜<sup>1</sup> (千葉県がんセンター・がん遺伝創薬、千葉県がんセンター・がん先進治療開発、産総研・人工知能研、国立成功大・情報工学部、国立成功大・メディカル情報学研)
- E-3044 AS602801 chemosensitizes ovarian cancer stem cells to carboplatin and paclitaxel by suppressing survivin and MDR1**  
Masahiro Yamamoto<sup>1</sup>, Shuhei Suzuki<sup>1,2</sup>, Tomomi Sanomachi<sup>1,2</sup>, Chifumi Kitanaka<sup>1</sup>, Masashi Okada<sup>1</sup> (<sup>1</sup>Dept. Mol. Canc. Sci., Yamagata Univ., Sch. Med., <sup>2</sup>Dept. Clin. Oncol., Yamagata Univ., Sch. Med.)  
新規抗がん幹細胞薬 AS602801 はサバイビンと MDR1 の抑制を介して卵巣癌幹細胞のカルボプラチンとパクリタキセルへの感受性を高める  
山本 雅大<sup>1</sup>、鈴木 修平<sup>1,2</sup>、佐野町 友美<sup>1,2</sup>、北中 千史<sup>1</sup>、岡田 雅司<sup>1</sup> (山形大・医・腫瘍分子、山形大・医・腫瘍内科)
- E-3045 Discovery of novel, potent and orally available BET bromodomain inhibitor**  
Tetsuya Kobayashi (Gilead Sci., Inc., Dept. Medicinal Chemistry)  
高活性かつ経口投与可能な、新規プロモドメイン阻害剤の探索研究  
小林 徹也 (ギリアド サイエンス)
- E-3046 Development of highly constrained bicyclic octadepsipeptids with potent antitumor activity and HIF-1 inhibitory activity**  
Hideko Nagasawa, Kota Koike, Tasuku Hirayama (Dept. Pharm. & Med. Chem., Gifu Pharm. Univ.)  
強力な抗腫瘍活性と HIF-1 阻害活性を有する高度に拘束された二環式デプシペプチド化合物の開発  
永澤 秀子、小池 晃太、平山 祐 (岐阜薬大・薬・薬化学)
- E-3047 Discovery of an inhibitor for EV secretion in cancer cells using a small-molecule library approach**  
Yusuke Yoshioka<sup>1</sup>, Akira Yokoi<sup>2,3</sup>, Takahiro Ochiya<sup>1</sup> (<sup>1</sup>Dept. Mol. Cell. Med., Inst. Med. Sci, Tokyo Med. Univ., <sup>2</sup>Dept. Gyne. Onco. & Repro. Med., MD anderson Cancer Ctr., <sup>3</sup>Dept. Obst. & Gyne. Univ. Nagoya, Sch. Med.)  
エクソソーム分泌を阻害する低分子化合物のスクリーニング  
吉岡 祐亮<sup>1</sup>、横井 暁<sup>2,3</sup>、落谷 孝広<sup>1</sup> (東京医大・医総研・分子細胞治療、MD アンダーソン・がんセンター、名古屋大・医・産婦)
- E-3048 Anticancer Potential of Analog and Boron-carrying Compound based on Curcumin Structure on Several Cancer Cells**  
Febri Wulandari<sup>1</sup>, Adam Hermawan<sup>1,2</sup>, Dhanita Novitasari<sup>1</sup>, Rohmad Yudi Utomo<sup>1,2</sup>, Riris Istighfari Jenie<sup>1,2</sup>, Dyaningryas Dewi Pamungkas Putri<sup>1,3</sup>, Muthi Ikawati<sup>1,2</sup>, Ratna Asmah Susidarti<sup>1,2</sup>, Edy Meiyanto<sup>1,2</sup> (<sup>1</sup>CCRC Faculty of Pharm., UGM, Indonesia, <sup>2</sup>Dept. Pharm. Chemistry, Faculty of Pharm., UGM, Indonesia, <sup>3</sup>Dept. Pharmacology Clin. Pharm., Faculty of Pharm., UGM, Indonesia)

Room2

**LS23 ONO PHARMACEUTICAL CO., LTD./Bristol-Myers Squibb K.K.**  
小野薬品工業株式会社/プリストル・マイヤーズ スクイブ株式会社

**Clinical value of genomic biomarker in cancer precision medicine**

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

Chair: Atsushi Ochiai (Exploratory Oncology Research & Clinical Trial Center National Cancer Center)

**プレジジョンメディシン時代におけるゲノムバイオマーカーの重要性**

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: 落合 淳志 (国立がん研究センター 先端医療開発センター)

Room4

**LS24 Chugai Pharmaceutical Co., Ltd.**  
中外製薬株式会社

**Immune approach for cancer from inside & outside**

Kiyoshi Yoshimura (Department of Clinical Immuno Oncology, Clinical Research Institute of Clinical Pharmacology and Therapeutics, Showa University/ Division of Medical Oncology, Department of Medicine, Showa University School of Medicine)

Chair: Hiroyuki Mano (National Cancer Center Research Institute)

**免疫の腫瘍に対する inside & outside アプローチ**

吉村 清 (昭和大学 臨床薬理研究所 臨床免疫腫瘍学講座/  
昭和大学 医学部内科学講座 腫瘍内科学部門)

座長: 間野 博行 (国立がん研究センター)

Room5

**LS25 TAKARA BIO INC.**  
タカラバイオ株式会社

**Personalized and integrative cancer immunotherapy**

Kazuhiro Kakimi (Department of Immunotherapeutics The University of Tokyo Hospital / Cancer Immunology data Multi-level Integration Unit, Medical Sciences Innovation Hub Program, Riken)

Chair: Masanobu Kimura (Takara Bio Inc.)

**がん免疫治療の個別化と複合化**

垣見 和宏 (東京大学医学部附属病院 免疫細胞治療学/理化学研究所 医科学イノベーションハブ がん免疫データ多層統合ユニット)

座長: 木村 正伸 (タカラバイオ株式会社)

Room6

**LS26 Celgene K.K.**  
セルジーン株式会社

**Recent Progress in Cellular Immunotherapy for Cancer**

Yutaka Kawakami (International University of Health and Welfare School of Medicine / Division of Cellular Signaling, Institute for Advanced Medical Research, Keio University School of Medicine)

Chair: Hiroshi Shiku (Department of Immuno-Gene Therapy, Personalized Cancer Immunotherapy, Mie University Graduate School of Medicine / Center for Comprehensive Cancer Immunotherapy, Mie University)

**がん治療における細胞免疫療法の最近の進捗**

河上 裕 (国際医療福祉大学医学部/慶應義塾大学医学部 先端医学研究所 細胞情報研究部門)

座長: 珠玖 洋 (三重大学大学院医学系研究科 遺伝子・免疫細胞治療学、個別化がん免疫治療学/三重大学複合的がん免疫療法研究センター)

Room7

**LS27 KONICA MINOLTA, INC.**  
コニカミノルタ株式会社

**Precision medicine by cancer gene panel testing**

Hiroyuki Aburatani (Genome Science Division, Research Center for Advanced Science and Technology, The University of Tokyo)

Chair: Shinji Kohsaka (Division of Cellular Signaling, National Cancer Center Research Institute)

**遺伝子パネル検査を用いたがん精密医療**

油谷 浩幸 (東京大学先端科学技術研究センター ゲノムサイエンス分野)

座長: 高阪 真路 (国立がん研究センター研究所 細胞情報学分野)

Room8

**LS28 GE Healthcare Japan Corporation**  
GEヘルスケア・ジャパン株式会社

**Analysis of spatial distribution of tumor infiltrating lymphocytes in lymph node metastases in melanoma patients**

Alexey A. Leontovich (Mayo Clinic Cancer Center collaborator)

Chair: Taro Nakazawa (GE Healthcare Japan Life Sciences Research Application Sales Customer Support & Application Manager)

**黒色腫リンパ節転移における腫瘍浸潤リンパ球の空間分布の分析**

Alexey A. Leontovich (Mayo Clinic Cancer Center collaborator)

座長: 中沢 太郎 (GEヘルスケア・ジャパン株式会社 ライフサイエンス統括本部 リサーチアプリケーション営業部)

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**LS29** DAIICHI SANKYO COMPANY, LIMITED  
第一三共株式会社

**Diagnosis and Treatment of Cancer-Associated Thrombosis  
~Therapeutic effect of Direct Oral Anti Coagulants (DOAC) ~**

Takeru Makiyama (Dept. of Cardiovascular Medicine, Graduate School of Medicine, Kyoto University)

Chair: Shigemi Matsumoto (Dept. of Therapeutic Oncology, Graduate School of Medicine, Kyoto University)

**がん関連静脈血栓症の診断と治療  
~Direct Oral Anti Coagulants (DOAC) の有用性~**

牧山 武 (京都大学大学院医学研究科 循環器内科学講座)

座長: 松本 繁巳 (京都大学大学院医学研究科 腫瘍薬物治療学講座)

Room12

**LS32** CHARLES RIVER LABORATORIES JAPAN, INC.  
日本チャールス・リバー株式会社

**Current status and prospects of patient-derived cancer model for rare cancer research**

Tadashi Kondo (Division of Rare Cancer Research, National Cancer Center Research Institute)

Chair: Yoshikatsu Koga (Exploratory Oncology Research & Clinical Trial Center, National Cancer Center)

**患者由来がんモデルの開発と応用~希少がんの研究者からみた現状と展望~**

近藤 格 (国立がん研究センター 研究所 希少がん研究分野)

座長: 古賀 宣勝 (国立がん研究センター 先端医療開発センター)

Room10

**LS30** Novartis Pharma K.K.  
ノバルティス ファーマ株式会社

**How do we apply Basic Science to Clinical Practice  
- Challenge in Breast Cancer-**

1) Shinichi Hayashi (Department of Molecular and Functional Dynamics, Tohoku University Graduate School of Medicine)

2) Takeshi Kotake (Department of Breast Surgery, Kyoto University Graduate School of Medicine)

Chair: Masakazu Toi (Department of Breast Surgery, Kyoto University Graduate School of Medicine)

**基礎研究から臨床へ~乳癌領域での挑戦~**

1) 林 慎一 (東北大学大学院医学系研究科 分子機能解析学分野 疾患エピソードゲノムコアセンター)

2) 古武 剛 (京都大学大学院医学研究科 外科学講座 乳腺外科学)

座長: 戸井 雅和 (京都大学大学院医学研究科 外科学講座 乳腺外科学)

Room11

**LS31** MIYARISAN PHARMACEUTICAL CO.,LTD.  
ミヤリサン製薬株式会社

**The impact of enteral care and management on clinical outcome of cancer treatment, especially in terms of immunotherapy treatment.**

Tetsuo Ohta (Department of Gastroenterological Surgery, Kanazawa University Hospital)

Chair: Masaki Mori (Department of Surgery, Kyushu University)

**一知っておくと得する目から鱗の“がん支持療法”**

“がん免疫治療”における「腸能力の活用」とは!

太田 哲生 (金沢大学 消化器・腫瘍・再生外科学)

座長: 森 正樹 (九州大学 消化器・総合外科学)

## Core Symposia

Room 1 Sep. 28 (Sat.) 14:40-17:10

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## Mechanisms of cancer metastasis for new cancer treatments

新しいがん治療に向けたがん転移機構の解明

Chairpersons: Kohei Miyazono (Dept. Mol. Path., Grad. Sch. of Med., The Univ. of Tokyo)

Yoshihiro Hayakawa (Inst. of Natural Med., Univ. of Toyama)

座長：宮園 浩平 (東京大・院医・分子病理学)

早川 芳弘 (富山大・和漢医薬学総合研)

Metastasis is one of the major causes of cancer-related death, which depends on a series of complex biological steps, involving the interactions between cancer cells, stromal cells, and extracellular matrices (ECMs). Various cytokines, chemokines, and growth factors have been demonstrated to regulate processes involved in the metastatic cascade, such as invasion, intravasation, extravasation, and colonization. Cancer cells interact with ECM at multiple steps of the metastatic cascades through interaction and degradation of ECM proteins. Recent findings showed that epithelial-mesenchymal transition (EMT), characterized by down-regulation of E-cadherin and up-regulation of mesenchymal markers, plays critical roles in cancer cell invasion and metastasis. In addition, inflammation and evasion of immune surveillance accelerate the process of cancer metastasis. Cancer cells form metastatic colonies preferentially at certain tissues, for which interaction of cancer cells with tumor microenvironment plays essential roles. In this core symposium, we discuss complex roles of tumor microenvironment in progression of metastasis, focusing on inflammatory process and functional roles of some cytokines. Novel strategies for prevention of metastasis will also be discussed.

## CS4-1 Liver Metastasis and the Tumour Microenvironment

Ruth J. Muschel<sup>1</sup>, Alex Gordon-Weeks<sup>1</sup>, Jaehong Im<sup>1</sup>, Su Yin Lim<sup>2</sup>, Arseniy Yuzhalin<sup>1</sup>, Roman Fisher<sup>3</sup>, Benedikt Kessler<sup>3</sup> (<sup>1</sup>Dept, Oncology, Oxford Inst. for Radiation Oncology, Univ. of Oxford, <sup>2</sup>Dept. Biomed. Sci. Macquarie Univ., <sup>3</sup>Target Discovery Inst., Nuffield Dept. Med. Univ. of Oxford)

## CS4-2 Soluble RANKL functions as an attractant for tumor metastasis to bone

Hiroshi Takayanagi (Dept. Immunol., The Univ. of Tokyo)

可溶性 RANKL は腫瘍を骨に誘引し転移を促進する  
高柳 広 (東京大・医・免疫学)

## CS4-3 Role of NK cells in controlling cancer growth and metastasis

Yoshihiro Hayakawa (Inst. Nat. Med., Univ. Toyama)

がん転移制御における NK 細胞の役割  
早川 芳弘 (富山大・和漢研)

## CS4-4 Genomic alterations and the immune microenvironment: mechanisms of breast cancer metastasis and targeting opportunities

Li Yang, Hiroki Ishii, Yanli Pang, Hannah Yan, Christine Hollander

(Lab. of Cancer Biol. &amp; Genetics, Natl. Cancer Inst.)

## CS4-5 Analyses of cancer metastasis regulated by tumor microenvironments using orthotopic transplantation models

Kohei Miyazono, Kei Takahashi, Shimpei I. Kubota, Kosuke Miyakuni, Jun Nishida, Shogo Ehata (Dept. Mol. Pathol., Grad. Sch. Med., Univ. Tokyo)

がん微小環境によるがん転移機構の同所性移植モデルを用いた解析  
宮園 浩平、高橋 恵生、久保田 晋平、宮園 昂介、西田 純、江幡 正悟  
(東京大・医・分子病理)

## Symposia

Room 2 Sep. 28 (Sat.) 13:30-16:00

E

S22

## Liquid biopsy: current status and future perspective

Liquid biopsyの現状と将来展望

Chairpersons: Koshi Mimori (Kyushu Univ. Beppu Hosp.)  
Shusuke Akamatsu (Dept. Urology, Kyoto Univ.)

座長：三森 功士 (九州大・病院・別府病院・外科)  
赤松 秀輔 (京都大・院医・泌尿器科)

With recent advances in genomic analysis, such as NGS and supercomputer analysis, "precision medicine" is gaining large attention in cancer treatment. In order to crystalize the precision medicine, liquid biopsy is a fundamental approach in early detection of primary or recurrence, identification of genomic aberrations to be targeted and chronologic monitoring of susceptibility to anti-cancer agents by use of body liquids instead of the conventional biopsy specimens of cancers. As we sometimes meet difficulties in obtaining adequate amount of tissue samples by biopsy, especially in metastatic disease, liquid biopsy is expected to be complementary to tissue analysis in such settings, or may replace it in the future. In this session, 7 experts of liquid biopsy in each oncology field will give an overview of the current status and future application of liquid biopsy in each field. Now, we are at the third corner of the genome medicine in liquid biopsy system in our country, let's learn brand-new data and discuss together!

## S22-1 Evolution of liquid biopsy technologies for molecular profiling

Kazuko Sakai, Kazuto Nishio (Dept. Genome Biol. Kindai Univ. Sch. Med.)

進化するリキッドバイオプシーによる分子診断  
坂井 和子、西尾 和人 (近畿大・医・ゲノム生物学)

## S22-2 The current state and problems of circulating tumor cell research

Tsuyoshi Yamaguchi, Takatsugu Okegawa, Hiroshi Fukuhara (Dept. Urology, Kyorin Univ. Sch. of Med.)

CTC 研究の現状と課題  
山口 剛、楠川 隆嗣、福原 浩 (杏林大・医・泌尿器科学教室)

## S22-3 Current status and challenges of liquid biopsy in lung cancer

Yasuhiro Koh (3rd Dept. Int. Med. Wakayama Med. Univ.)

肺癌における liquid biopsy の現状と課題  
洪 泰浩 (和歌山医大・医・呼吸器内科・腫瘍内科)

## S22-4 Post-therapeutic tumor burden monitoring with circulating tumor DNA in esophageal squamous cell carcinoma

Takeshi Iwaya<sup>1</sup>, Satoshi Nishizuka<sup>2</sup> (<sup>1</sup>Dept. Surg., Iwate Med. Univ., <sup>2</sup>Div. Biomed. Res. & Development, Iwate Med. Univ.)

Circulating tumor DNA を用いた食道癌治療モニタリング  
岩谷 岳<sup>1</sup>、西塚 哲<sup>2</sup> (<sup>1</sup>岩手医大・医・外科、<sup>2</sup>岩手医大・医歯薬総合研・医療開発部門)

## S22-5 Liquid biopsy in prostate cancer focusing on cfDNA analysis

Shusuke Akamatsu, Takayuki Sumiyoshi, Kei Mizuno, Osamu Ogawa (Dept. Urology, Kyoto Univ.)

前立腺癌のリキッドバイオプシー：cfDNA 解析を中心に  
赤松 秀輔、住吉 崇幸、水野 桂、小川 修 (京都大・医・泌尿器科)

## S22-6 Liquid biopsy in pancreatic tumors; Challenges for early detection and surveillance

Yusuke Mizukami<sup>1,2</sup>, Yusuke Ono<sup>1,2</sup>, Toshikatsu Okumura<sup>1</sup> (<sup>1</sup>3rd Dept. Med., Asahikawa Med. Univ., <sup>2</sup>Inst. Biomed. Res., Sapporo Higashi Tokushukai Hosp.)

リキッドバイオプシーによる膵癌診断  
水上 裕輔<sup>1,2</sup>、小野 裕介<sup>1,2</sup>、奥村 利勝<sup>1</sup> (<sup>1</sup>旭川医大・医・第3内科、<sup>2</sup>札幌東徳洲会病院・医学研究セ)

## S22-7 Genetic and epigenetic profiling of liver cancer by liquid biopsy

Kenji Tatsuno<sup>1</sup>, Genta Nagae<sup>1</sup>, Shiro Fukuda<sup>1</sup>, Shogo Yamamoto<sup>1</sup>, Yutaka Midorikawa<sup>1,2</sup>, Tadatoshi Takayama<sup>2</sup>, Hiroyuki Aburatani<sup>1</sup> (<sup>1</sup>Genome Sci. Lab., RCAST, Univ. of Tokyo, <sup>2</sup>Dept. Digestive Surg., Nihon Univ. Sch. Med.)

リキッドバイオプシーによる肝細胞がんのゲノム・エピゲノムプロファイリング  
辰野 健二<sup>1</sup>、永江 玄太<sup>1</sup>、福田 史郎<sup>1</sup>、山本 尚吾<sup>1</sup>、緑川 泰<sup>1,2</sup>、高山 忠利<sup>2</sup>、油谷 浩幸<sup>1</sup> (<sup>1</sup>東京大・先端研・ゲノムサイエンス、<sup>2</sup>日本大・医・消化器外科)

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S23

**Frontiers in cancer genomics**がんゲノム解析の新しい流れ (全ゲノム解析、クラウド解析、  
全がん解析、ロングリード解析などの新規技術)Chairpersons: Keisuke Kataoka (Div. Molecul. Oncol., Natl. Cancer Ctr. Res. Inst.)  
Yusuke Okuno (Med. Genomics Ctr., Magoya Univ. Hosp.)座長: 片岡 圭亮 (国立がん研セ・研・分子腫瘍)  
奥野 友介 (名古屋大・附属病院・ゲノム医療セ)

Over the past decade, next-generation sequencing (NGS) technology has changed the paradigm of cancer studies and expanded our understanding of genetic abnormalities in cancer. Particularly, large-scale genetic studies using NGS, such as TCGA and ICGC, have identified many novel mutations and delineated their landscape in a variety of cancers. But still a number of issues remain unsolved. In this session, we will introduce a recent progress in cancer genomic analysis, including large-scale whole-genome sequencing analysis for various cancers and systematic approach in a pan-cancer setting. In addition, we will focus on new sequencing technologies, such as long-read sequencing, which will provide a new clue for oncogenic pathogenesis.

**S23-1 Novel classification of genetic events and subtypes in myeloid tumors revealed by Integrated omics analysis**

Yasuhito Nannya<sup>1</sup>, June Takeda<sup>1</sup>, Hiroko Tanaka<sup>2</sup>, Kenichi Chiba<sup>2</sup>, Yuichi Shiraishi<sup>2</sup>, Masahiro Nakagawa<sup>1</sup>, Hideki Makishima<sup>1</sup>, Kenichi Yoshida<sup>1</sup>, Shigeru Chiba<sup>3</sup>, Yasushi Miyazaki<sup>4</sup>, Kazuma Ohyashiki<sup>5</sup>, Satoru Miyano<sup>2</sup> (<sup>1</sup>Pathol & Tumor Biol., Kyoto Univ., <sup>2</sup>Lab. of DNA information Analysis, HGC, Tokyo Univ., <sup>3</sup>Dept., of Hematol., Univ. of Tsukuba, <sup>4</sup>Dept., of Hematol., Atomic Bomb Disease Inst., Nagasaki Univ., <sup>5</sup>Dept., Hematology, Tokyo Med. Univ.)

**統合オミクス解析による骨髄性腫瘍の新規分類**

南谷 泰仁<sup>1</sup>、竹田 淳恵<sup>1</sup>、田中 洋子<sup>2</sup>、千葉 健一<sup>2</sup>、白石 友一<sup>2</sup>、中川 正宏<sup>1</sup>、牧島 秀樹<sup>1</sup>、吉田 健一<sup>1</sup>、千葉 滋<sup>3</sup>、宮崎 泰司<sup>4</sup>、大屋敷 一馬<sup>5</sup>、宮野 悟<sup>2</sup> (1京都大・腫瘍生物学、2東京大・医科研・ヒトゲノムセ、3筑波大・医・血液内科、4長崎大・医・原研内、5東京医大・医・血液内科)

**S23-2 Whole-genome mutational analysis of juvenile myelomonocytic leukemia**

Yusuke Okuno<sup>1</sup>, Hideki Muramatsu<sup>2</sup>, Norihiro Murakami<sup>2</sup>, Nozomu Kawashima<sup>2</sup>, Manabu Wakamatsu<sup>2</sup>, Hironobu Kitazawa<sup>2</sup>, Tomoo Ogi<sup>3</sup>, Yoshiyuki Takahashi<sup>2</sup> (<sup>1</sup>Med. Genomics Ctr., Nagoya Univ. Hosp., <sup>2</sup>Dept. Pediatrics, Nagoya Univ., <sup>3</sup>Dept. Genetics, RieM, Nagoya Univ.)

**若年性骨髄単球性白血病における全ゲノム解析**

奥野 友介<sup>1</sup>、村松 秀城<sup>2</sup>、村上 典寛<sup>2</sup>、川島 希<sup>2</sup>、若松 学<sup>2</sup>、北澤 宏展<sup>2</sup>、荻 朋男<sup>3</sup>、高橋 義行<sup>2</sup> (1名古屋大・病院・ゲノム医療セ、2名古屋大・小児科、3名古屋大・環境医学研・発生遺伝分野)

**S23-3 Clinical and genetic characteristics of colorectal cancer with POLE gene mutation**

Yoshikage Inoue<sup>1,4</sup>, Nobuyuki Kakiuchi<sup>1</sup>, Kenichi Yoshida<sup>5</sup>, Yusuke Shiozawa<sup>1</sup>, Kenichi Chiba<sup>2</sup>, Yasuhide Takeuchi<sup>1</sup>, Tetsuichi Yoshizato<sup>6</sup>, Satoshi Nagayama<sup>3</sup>, Satoru Miyano<sup>2</sup>, Yoshiharu Sakai<sup>3</sup>, Seishi Ogawa<sup>1</sup> (<sup>1</sup>Dept. Path. & Tumor Biology, Kyoto Univ., Sch. Med., <sup>2</sup>HGC, Tokyo Univ., Inst. of Med. Sci., <sup>3</sup>Dept. GI Surg., Cancer Inst. Hosp., <sup>4</sup>Dept. GI Surg., Kyoto Univ., Sch. Med., <sup>5</sup>Wellcome Sanger Inst., <sup>6</sup>Karolinska Inst.)

**POLE 遺伝子変異を有する大腸癌の遺伝子変異解析**

井上 善英<sup>1,4</sup>、垣内 伸之<sup>1</sup>、吉田 健一<sup>5</sup>、塩澤 裕介<sup>1</sup>、千葉 健一<sup>2</sup>、竹内 康英<sup>1</sup>、吉里 哲一<sup>6</sup>、長山 聡<sup>3</sup>、宮野 悟<sup>2</sup>、坂井 義治<sup>4</sup>、小川 誠司<sup>1</sup> (1京都大・医・腫瘍生物学、2東京大・医科研・HGC、3(公財)がん研・有明病院・消化器外科、4京都大・医・消化管外科、5サンガー研、6カロリンスカ研)

**S23-4 Identification of structural variations and analysis of their functional roles**

Akihiro Fujimoto (DDM, Grad. Sch. Med., Kyoto Univ.)

**構造異常の同定と機能的意義の推定**

藤本 明洋 (京都大・院医・創薬医学)

**S23-5 Landscape and significance of multiple mutations in oncogenes**

Yuki Saito<sup>1,2</sup>, Junji Koya<sup>1</sup>, Sumito Shingaki<sup>1</sup>, Yasunori Kogure<sup>1</sup>, Mariko Tabata<sup>1,3</sup>, Takanori Kanai<sup>2</sup>, Yuichi Shiraishi<sup>1</sup>, Keisuke Kataoka<sup>1</sup> (<sup>1</sup>Div. Molecul. Oncol., Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Gastro, Keio Univ. Sch. of Med., <sup>3</sup>Dept. Uro., Grad. Sch. Med., Univ. Tokyo, <sup>4</sup>Ctr. Cancer Genomics Adv. Ther., Natl. Cancer Ctr.)

**発がん遺伝子における複数変異の全体像と生物学的・臨牀的意義**

斎藤 優樹<sup>1,2</sup>、古屋 淳史<sup>1</sup>、新垣 清登<sup>1</sup>、木暮 泰寛<sup>1</sup>、田畑 真梨子<sup>1,3</sup>、金井 隆典<sup>2</sup>、白石 友一<sup>4</sup>、片岡 圭亮<sup>1</sup> (1国立がん研セ・研・分子腫瘍、2慶應大・医・消内、3東京大・医・泌尿、4国立がん研究・がんゲノム情報管理セ)

**S23-6 Whole genome landscape of gastric cancer**

Tatsuhiko Shibata<sup>1,2</sup>, Yasushi Totoki<sup>2</sup>, Mihoko Adachi<sup>2</sup>, Hiromi Nakamura<sup>2</sup>, Yasuhito Arai<sup>2</sup> (<sup>1</sup>Lab. Mol. Med., IMSUT, Univ. Tokyo, <sup>2</sup>Div. Cancer Genomics, NCCRI)

**胃がんにおける全ゲノム解析**

柴田 龍弘<sup>1,2</sup>、十時 泰<sup>2</sup>、足立 美保子<sup>2</sup>、中村 浩美<sup>2</sup>、新井 康仁<sup>2</sup> (1東京大・医科研・ゲノム医学、2国立がん研セ・研・がんゲノムクス)



## International Sessions

Room 4 Sep. 28 (Sat.) 13:30-16:00

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IS11 Cancer and immuno-metabolism  
がん・腫瘍免疫とメタボリズム

Chairpersons: Nobuhiro Tanuma (Miyagi Cancer Ctr. Res. Inst.)  
Yang-Sook Chun (Dept. Physiol., Seoul Natl. Univ. College of Med.)  
座長: 田沼 延公 (宮城県がん研・研・がん薬物療法研究部)  
Yang-Sook Chun (Dept. Physiol., Seoul Natl. Univ. College of Med.)

This symposium focuses on new horizons in tumor- and immuno-metabolism; the mechanisms and its clinical implications. Altered cellular metabolism is now recognized as a hallmark of cancer. Some transcriptional factors such as HIF-1, Nr2f, etc. play important roles for cancer metabolic reprogramming (Drs. Chun and Cox). Metabolic change in cancer cells is important to fuel various anabolic and catabolic pathways, and also can be translated into change in protein post-translational modification(s) regulating cellular functions including metabolism itself (Dr. Wang). Clearly, defining metabolic vulnerabilities of cancer, which provide therapeutic opportunity, is essential to clinical applications (Dr. Ogiwara). Also, it is intriguing to know how metabolic intervention affect tumor immunity (Dr Maeda).

- IS11-1 HIF-1 regulates lipid metabolic reprogramming in hepatocellular carcinoma cells**  
Yang-Sook Chun, Jieun Seo (Dept. Physiol., Seoul Natl. Univ. College of Med.)
- IS11-2 Transcriptional reprogramming of metabolism in liver cancer**  
Andrew Cox<sup>1,2</sup>, Talhah Salmi<sup>1,2</sup>, Sri Vaidyanathan<sup>1,2</sup>, Kristin Brown<sup>1,2</sup>  
(<sup>1</sup>Peter MacCallum Cancer Ctr., <sup>2</sup>Univ. of Melbourne)
- IS11-3 Finetuning metabolite sensing with protein arginine methylation**  
Yiping Wang (Fudan Univ. Shanghai Cancer Ctr., IBS, Shanghai Med. College)
- IS11-4 Synthetic Lethal Therapy Based on Targeting the Vulnerability of Glutathione Metabolism in ARID1A-Deficient Cancers**  
Hideaki Ogiwara (Genome Biol., Nat. Can. Cen. Res. Inst.)  
ARID1A 欠損がんにおけるグルタチオン代謝の脆弱性を標的とした合成致死治療法  
萩原 秀明 (国立がん研セ・研・ゲノム生物)
- IS11-5 Glucose metabolism alteration mediated by FBPI upregulation supports progression of EVII<sup>high</sup> AML**  
Hideaki Mizuno<sup>1</sup>, Yuki Kagoya<sup>1</sup>, Junji Koya<sup>2</sup>, Yosuke Masamoto<sup>1</sup>, Mineo Kurokawa<sup>1</sup> (<sup>1</sup>Dept. Hematol. Oncol., Tokyo Univ., <sup>2</sup>Natl. Cancer Ctr. Jpn.)  
FBPI は糖代謝の変容を介して EVII 高発現白血病の進展に寄与する  
水野 秀明<sup>1</sup>、籠谷 勇紀<sup>1</sup>、古屋 淳史<sup>2</sup>、正本 庸介<sup>1</sup>、黒川 峰夫<sup>1</sup> (<sup>1</sup>東京大・医・血液腫瘍内科、<sup>2</sup>国立がん研セ)
- IS11-6 Selective inhibition of low-affinity memory CD8<sup>+</sup>T cells by corticosteroids via metabolic suppression**  
Yuka Maeda<sup>1</sup>, Akihiro Tokunaga<sup>1</sup>, Daisuke Sugiyama<sup>2</sup>, Allison B. Warner<sup>3,4</sup>, Jedd D. Wolchok<sup>3,4</sup>, Hiroyoshi Nishikawa<sup>1,2</sup> (<sup>1</sup>Div. Cancer Immunol., Natl. Cancer Ctr. Res. Inst. Tokyo, <sup>2</sup>Dept. Immunol., Nagoya Univ. Grad. Sch. of Med., <sup>3</sup>Parker Inst. for Cancer Immunotherapy, Memorial Sloan Kettering Cancer Ctr., <sup>4</sup>Weill Cornell Med. College, NY.)  
ステロイドによる脂肪酸代謝阻害を介したメモリー CD8 陽性 T 細胞の選択的抑制  
前田 優香<sup>1</sup>、徳永 昌浩<sup>1</sup>、杉山 大介<sup>2</sup>、ワーナー アリソン<sup>3,4</sup>、ウォルチョク ジェド<sup>3,4</sup>、西川 博嘉<sup>1,2</sup> (<sup>1</sup>国立がん研セ・腫瘍免疫研究分野、<sup>2</sup>名古屋大・医・分子細胞免疫学分野、<sup>3</sup>メモリアルスローンケッタリング・医、<sup>4</sup>コーネル大・医)

## Symposia

Room 5 Sep. 28 (Sat.) 13:30-16:00

E

S24 Diagnostic and therapeutic applications of exosomes in cancer  
エクソソームによるがんの診断と治療の新展開

Chairpersons: Takahiro Ochiya (Tokyo Med. Univ. Inst. of Med. Sci.)  
Tsai-Kun Li (Dept. Microbiology Associate Dean, Natl. Taiwan Univ. College of Med.)  
座長: 落谷 孝広 (東京医大・医学総合研)  
Tsai-Kun Li (Dept. Microbiology Associate Dean, Natl. Taiwan Univ. College of Med.)

Exosomes are 50-150 nm size in diameter extracellular vesicles (EVs) secreted by multiple living cells into the extracellular space. They contain tissue or cell-specific bioactive materials, including exDNA, exRNA, proteins, lipids, metabolites, etc. with their specific surface markers. Exosomes have been considered as information carriers in cell communication between cancer cells and non-cancer cells, which affect gene expressions and cellular signalling pathways of recipient cells by delivering their cellular components. Exosomes are promising tools for improving cancer care. Here, we highlight recently discovered roles of exosomes in modulating cancer microenvironment and discuss how exosomes could be exploited as biomarkers and delivery vehicles in cancer therapy.

- S24-1 PGE2 Signaling Controls Stem Cell Homeostasis and Cancer Chemoresistance via Regulating Exosome Biogenesis**  
Hua-Jung Li<sup>1</sup>, Meng-Chieh Lin<sup>1</sup>, Shih-Yin Chen<sup>1</sup>, Pei-Lin He<sup>1</sup>, Harvey Herschman<sup>2</sup> (<sup>1</sup>ICSM, NHRI, <sup>2</sup>DMMP, UCLA)
- S24-2 Development of Metastatic Exosome Sensing Strategy via Aptamer Nano-Robotics**  
Tzu-Heng Wu<sup>1</sup>, C.E. Yang<sup>2</sup>, H.W. Liu<sup>1</sup>, Aurelien Bruyant<sup>3</sup>, Tang-Long Shen<sup>4</sup>, Chii-Wann Lin<sup>1</sup> (<sup>1</sup>Dept. Biomed. engineering, Natl. Taiwan Univ., <sup>2</sup>Grad. Inst. of Bio-Electronics & Bio-Informatics, Natl. Taiwan Univ., <sup>3</sup>Univ. of Tech. de Troyes, <sup>4</sup>Dept. Plant Path., Natl. Taiwan Univ.)
- S24-3 Sweet but poison: glycosylated exosomes in tumor progression**  
Tang-Long Shen<sup>1,2,3,4</sup> (<sup>1</sup>Lab. of Cell Biol., Dept. Plant Path. & Microbiology (PPM), <sup>2</sup>Ctr. of Industry-Academia Cooperation (NTU-CIAC), <sup>3</sup>Ctr. for Biotechnology (NTU-CB), <sup>4</sup>Natl. Taiwan Univ.)
- S24-4 Application of exosomes and extracellular vesicles for delivering RNA therapeutics**  
Masaharu Somiya, Shun'ichi Kuroda (ISIR, Osaka Univ.)  
細胞外小胞エクソソームの RNA 送達技術への応用  
曾宮 正晴、黒田 俊一 (大阪大・産研)
- S24-5 Exosome-based Liquid Biopsy for Immune Checkpoint Therapy**  
Yu Fujita (Div. Resp. Med., Dept. Int. Med., Jikei. Univ. Sch. Med.)  
免疫チェックポイント阻害剤におけるエクソソーム体液診断  
藤田 雄 (東京慈恵会医大・呼吸器内科)
- S24-6 Exosome-mediated horizontal gene transfer: a possible new risk for genome editing**  
Ryuichi Ono (Div. Tox. CBSR, NIHS)  
エクソソームを介した遺伝子水平伝搬機構: ゲノム編集技術の新たなリスクの可能性  
小野 竜一 (国衛研・安全セ・毒性部)
- S24-7 Development of novel EV-based biomarker for colorectal cancer and its physiological role for angiogenesis**  
Atsushi Ikeda<sup>1,2</sup>, Makoto Konishi<sup>1</sup>, Risa Fujii<sup>1</sup>, Naomi Saichi<sup>1</sup>, Satoshi Nagayama<sup>3</sup>, Yoshiharu Sakai<sup>2</sup>, Koji Ueda<sup>1</sup> (<sup>1</sup>Cancer proteomics group, JFCR, <sup>2</sup>Dept. Surg., Kyoto Univ. Grad. Sch. Med., <sup>3</sup>Dept. Gastroenterol. Surg., Cancer Inst. Hosp., JFCR)  
大腸癌リキッドバイオプシーによる新規 EV バイオマーカーの開発と、その血管新生にかかわる生理学的役割  
池田 篤志<sup>1,2</sup>、小西 惇<sup>1</sup>、藤井 理沙<sup>1</sup>、最知 直美<sup>1</sup>、長山 聡<sup>3</sup>、坂井 義治<sup>2</sup>、植田 幸嗣<sup>1</sup> (<sup>1</sup>(公財) がん研・プロテオミクス解析グループ、<sup>2</sup>京都大・医・消化管外科、<sup>3</sup>(公財) がん研・有明病院・消化器外科)

## International Sessions

Room 6 Sep. 28 (Sat.) 13:30-16:00

E

### IS12 Epigenetic regulation by non-coding RNAs ノンコーディング RNA によるエピジェネティクスの制御

Chairpersons: Noriko Saitoh (Cancer Inst., JFCR)  
Myoung Hee KIM (Dept. Anatomy, Embryology Lab. Yonsei Univ. College of Med.)

座長: 齊藤 典子 ((公財) がん研・研)

Myoung Hee KIM (Dept. Anatomy, Embryology Lab. Yonsei Univ. College of Med.)

In mammals, the majority of genomes are pervasively transcribed into RNAs that do not encode proteins, including long non-coding RNAs and microRNAs. The number of non-coding RNAs in human are estimated to be over 150 000, vastly exceeding the numbers for mRNAs of approximately 20,000. Non-coding RNAs are transcribed from virtually everywhere in the genome, including intergenic, antisense, intronic, enhancer, and promoter regions. Many long ncRNAs and miRNAs are expressed in a time- or tissue-specific manner, and are implicated in disease, especially cancer. Many of them are involved in gene expression regulation through epigenetic mechanisms. In this international session, we will discuss on long non-coding RNAs involved in breast and gastrointestinal cancers as well as in stress responses. We will also discuss the role of an RNA binding protein on DNA damage repair and response. We will further explore miRNA regulation in breast and bladder cancers. We will discover fundamental importance of non-coding RNAs in cancer, and the possible new paths to diagnosis and therapies.

#### IS12-1 Peroxiredoxin 3 promotes breast cancer progression by modulating miR-34a

Boon Huat Bay<sup>1</sup>, Pei Jou Chua<sup>1</sup>, Suet Hui Ow<sup>1</sup>, Jayantha Gunaratne<sup>1,2</sup>  
(<sup>1</sup>Dept. Anatomy, Natl. Univ. of Singapore, <sup>2</sup>Inst. of Mol. & Cell Biol., Singapore)

#### IS12-2 c-Myc Acts as a Competing Endogenous RNA to Sponge miR-34a in the Upregulation of CD44 in Bladder Cancer

Michael Chan<sup>1,4</sup>, Pie-Che Chen<sup>2</sup>, Chih-Chia Yu<sup>3</sup>, Wen-Yu Huang<sup>1</sup>, Wan-Hong Huang<sup>1,4</sup>, Yu-Ming Chuang<sup>1,4</sup>, Ru-Inn Lin<sup>3</sup>, Jora Lin<sup>1</sup>, Hon-Yi Lin<sup>3</sup>, Yeong-Chin Jou<sup>2</sup>, Cheng-Huang Shen<sup>2</sup> (<sup>1</sup>Dept. Biomed Sci & CIRAS, Natl. Chung-Cheng Univ., Taiwan, <sup>2</sup>Dept. Urology, Chia-Yi Christian Hosp., Taiwan, <sup>3</sup>Dept. Radiation Oncology, Dalin Tzu Chi Hosp., Taiwan, <sup>4</sup>Epigenomics & Human Disease Res. Ctr., Natl. Chung-Cheng Univ., Taiwan)

#### IS12-3 The RNA Processing Factor Y14 Participates in DNA Damage Response and Repair

Woan-Yuh Tarn<sup>1</sup>, Tzu-Wei Chuang<sup>1</sup>, Chia-Chen Lu<sup>1</sup>, Chun-Hao Su<sup>1</sup>, Pei-Yu Wu<sup>2</sup>, Sarasvathi Easwaran<sup>1</sup> (<sup>1</sup>Inst. of Biomed. Sci., Academia Sinica, <sup>2</sup>Inst. of Biological Chemistry, Academia Sinica)

#### IS12-4 Functions of nuclear long noncoding RNAs in stress responses

Nobuyoshi Akimitsu<sup>1</sup>, Rena Onoguchi<sup>1</sup>, Takeshi Kawamura<sup>1</sup>, Sven Diederichs<sup>2</sup>, Yutaka Suzuki<sup>3</sup> (<sup>1</sup>ISC, Univ. Tokyo, <sup>2</sup>DKFZ & Univ. Hosp. Freiburg, <sup>3</sup>Grad. Sch. of Frontier Sci., Univ. Tokyo)

ストレス応答における核内長鎖ノンコーディング RNA の働き  
秋光 信佳<sup>1</sup>, 小野口 玲菜<sup>1</sup>, 川村 猛<sup>1</sup>, Sven Diederichs<sup>2</sup>, 鈴木 穰<sup>3</sup>  
(<sup>1</sup>東京大・アイントープ, <sup>2</sup>DKFZ, <sup>3</sup>東京大・新領域)

#### IS12-5 Identification and analysis of long-noncoding RNAs associated with gastrointestinal cancer

Hiromu Suzuki<sup>1</sup>, Hiroshi Kitajima<sup>1</sup>, Koyo Nishiyama<sup>2</sup>, Yui Hatanaka<sup>2</sup>, Takeshi Niinuma<sup>3</sup>, Reo Maruyama<sup>3</sup>, Eiichiro Yamamoto<sup>1</sup>, Masahiro Kai<sup>1</sup>, Akihiro Miyazaki<sup>2</sup>, Hiroshi Nakase<sup>4</sup>, Takashi Tokino<sup>5</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>Project Cancer Epigenome, The Cancer Inst., JFCR, <sup>4</sup>Dept. Gastroenterol. Hepatol., Sapporo Med. Univ., Sch. Med., <sup>5</sup>Dept. Med. Genome Sci, Inst. Frontier Med., Sapporo Med. Univ.)

消化器がん関連長鎖 noncoding RNA の同定と解析

鈴木 拓<sup>1</sup>, 北嶋 洋志<sup>1</sup>, 西山 廣陽<sup>2</sup>, 畠中 柚衣<sup>2</sup>, 新沼 猛<sup>1</sup>, 丸山 玲緒<sup>3</sup>, 山本 英一郎<sup>1</sup>, 甲斐 正広<sup>1</sup>, 宮崎 晃巨<sup>2</sup>, 仲瀬 裕志<sup>4</sup>, 時野 隆至<sup>5</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>(公財) がん研・研・がんエピゲノム, <sup>4</sup>札幌医大・医・消化器内科, <sup>5</sup>札幌医大・フロンティアゲノム医科)

#### IS12-6 The lncRNA HOTAIRM1 promotes tamoxifen resistance by mediating HOXA1 expression in ER+ breast cancer cells

Myoung Hee Kim<sup>1,2</sup>, Clara Y Kim<sup>1,2</sup>, Ji Hoon Oh<sup>1</sup>, Ji-Yeon Lee<sup>1</sup> (<sup>1</sup>Dept. Anatomy, Embryology Lab. Yonsei Univ. College of Med., <sup>2</sup>Brain Korea 21 Plus Project for Med. Sci.)

## Introduction Course for Current Cancer Research

Room 7 Sep. 28 (Sat.) 13:30-14:30

J

### IC4 Introduction Course for Current Cancer Research 4 がん研究入門コース 4

Chairperson: Ryoichi Saito (Kansai Med. Univ.)  
座長: 齊藤 亮一 (関西医大・腎泌尿器外科)

#### IC4 Clinical Trials Act and Trends in Cancer Treatment Development Kenichi Nakamura (Natl. Cancer Ctr. Hosp.)

臨床研究法とがん治療開発の潮流の変化  
中村 健一 (国立がん研セ・中央病院)

Room 7 Sep. 28 (Sat.) 14:30-15:20

J

### IC5 Introduction Course for Current Cancer Research 5 がん研究入門コース 5

Chairperson: Teppei Shimamura (Div. Systems Biol., Nagoya Univ. Grad. Sch. of Med.)

座長: 島村 徹平 (名古屋大・院医・システム生物学分野)

#### IC5 Stratification and prediction of cancer diagnosis and prognosis using artificial intelligence

Eiryu Kawakami<sup>1,2</sup> (<sup>1</sup>Med. Sci. Innov. Hub Program, RIKEN, <sup>2</sup>AI Med., Grad. Sch. of Med., Chiba Univ.)

AI によるがんの層別化と予測

川上 英良<sup>1,2</sup> (<sup>1</sup>理研・医科学イノベ, <sup>2</sup>千葉大・医・AI 医学)

Room 7 Sep. 28 (Sat.) 15:20-16:10

J

### IC6 Introduction Course for Current Cancer Research 6 がん研究入門コース 6

Chairperson: Toshihiko Torigoe (Dept. Path.I, Sapporo Med. Univ., Sch. of Med.)  
座長: 鳥越 俊彦 (札幌医大・医・病理学第一講座)

#### IC6 Tumor antigens and cancer immunotherapy

Hirokazu Matsushita<sup>1,2</sup> (<sup>1</sup>Div. Translational Oncoimmunol. Aichi Cancer Ctr. Res. Inst., <sup>2</sup>Div. Cancer Immunogenomics, Nagoya Univ. Grad. Sch. Med.)

腫瘍抗原とがん免疫療法

松下 博和<sup>1,2</sup> (<sup>1</sup>愛知県がんセ・腫瘍免疫制御 TR 分野, <sup>2</sup>名古屋大・院医・がん免疫ゲノム分野)

## SST6

## Molecular Technology Development for Gastroenterological Diseases

消化器外科領域に応用可能な分子レベルの技術開発

Chairpersons: Masahiko Watanabe (Kitasato Univ. Sch. of Med.)  
Toshiyoshi Fujiwara (Dept. Gastroenterological Surg., Okayama Univ. Grad. Sch. of Med., Dent. & Pharm. Sci.)

座長: 渡邊 昌彦 (北里大・医・外科)  
藤原 俊義 (岡山大・院医歯薬総合・消化器外科)

The recent progress in molecular biology brought a big innovation in the field of gastroenterological surgery targeting digestive organ cancers. In the diagnostic area, epoch-making techniques such as molecular imaging to detect the area of early neoplastic lesions and real-time navigation strategy to precisely excise target cancers by visualizing regional lymphatic as well as blood flow have been developed. Liquid biopsies at the molecular level also play an important role in the decision of treatment options as well as post-surgical follow-up. Furthermore, the clinical application of developmental therapies based on genetic engineering technology became the reality. In this session, the experts in the field of gastroenterological surgery will introduce recent highlights in this rapidly evolving field: clinical diagnostic and therapeutic approaches for gastroenterological cancers.

### SST6-1 Application of fluorescence probe targeting DPP-IV in the treatment of esophageal squamous cell carcinoma

Yasuyuki Seto<sup>1</sup>, Haruna Onoyama<sup>1</sup>, Kei Sakamoto<sup>1</sup>, Yosuke Tsuji<sup>2</sup>, Yasuteru Urano<sup>3</sup> (<sup>1</sup>Dept. Gastrointestinal Surg., the Univ. Tokyo, <sup>2</sup>Dept. Gastroenterology, the Univ. Tokyo, <sup>3</sup>Lab. Chemistry & Biol., the Univ. Tokyo)

食道扁平上皮癌診療における蛍光イメージングの活用

瀬戸 泰之<sup>1</sup>、小野山 温那<sup>1</sup>、坂本 啓<sup>1</sup>、辻 陽介<sup>2</sup>、浦野 泰照<sup>3</sup> (<sup>1</sup>東京大・医・消化管外科、<sup>2</sup>東京大・医・消化器内科、<sup>3</sup>東京大・薬・生化学)

### SST6-2 Improvement of the surgical quality for CRC using intraoperative ICG fluorescence-imaging for the lymphatic drainages

Ichiro Takemasa, Kenji Okita, Toshihiko Nishidate, Koichi Okuya, Emi Akizuki, Atsushi Hamabe, Akihiro Usui, Masayuki Ishii, Tetsuta Satoyoshi (Dept. Surg., Surg. Oncol. & Sci. Sapporo Med. Univ.)

大腸がんに対する ICG を用いた術中 real time リンパ流認識による手術クオリティ向上のこころみ

竹政 伊知朗、沖田 憲司、西館 敏彦、奥谷 浩一、秋月 恵美、浜部 敦史、碓井 彰大、石井 雅之、里吉 哲太 (札幌医大・消化器・総合、乳腺・内分泌外科)

### SST6-3 Real-time navigation for liver surgery using projection mapping with indocyanine green fluorescence

Etsuro Hatano (Dept. Surg., Hyogo College of Med.)

ICG 蛍光プロジェクションマッピングを用いたリアルタイムナビゲーション肝切除

波多野 悦朗 (兵庫医大・肝胆腸外科)

### SST6-4 Next-generation sequencing-based gene test and construction of a genomic analysis database

Masayuki Nagahashi<sup>1</sup>, Toshifumi Wakai<sup>1</sup>, Yoshifumi Shimada<sup>1</sup>, Hiroshi Ichikawa<sup>1</sup>, Takaaki Hanyu<sup>1</sup>, Kazuyasu Takizawa<sup>1</sup>, Takashi Ishikawa<sup>1</sup>, Jun Sakata<sup>1</sup>, Takashi Kobayashi<sup>1</sup>, Hitoshi Kameyama<sup>1</sup>, Shiho Takeuchi<sup>2</sup>, Shujiro Okuda<sup>2</sup> (<sup>1</sup>Div. Digestive General Surg., Niigata Univ. Grad. Sch. Med. Dent., <sup>2</sup>Div. Bioinformatics., Niigata Univ. Grad. Sch. Med. Dent.)

次世代シーケンサーを用いた遺伝子検査とゲノム解析データベース構築

永橋 昌幸<sup>1</sup>、若井 俊文<sup>1</sup>、島田 能史<sup>1</sup>、市川 寛<sup>1</sup>、羽入 隆晃<sup>1</sup>、滝沢 一泰<sup>1</sup>、石川 卓<sup>1</sup>、坂田 純<sup>1</sup>、小林 隆<sup>1</sup>、亀山 仁史<sup>1</sup>、竹内 志穂<sup>2</sup>、奥田 修二郎<sup>2</sup> (<sup>1</sup>新潟大・院・消化器・一般外科、<sup>2</sup>新潟大・院・バイオインフォマティクス)

### SST6-5 Revolution of Cancer Medicine by visualization of "pathologically invisible" cancer cells using cancer-specific DNA markers

Keishi Yamashita (Div. Adv. Surg. Oncol., Kitasato Univ. Sch. Med.)

がん特異的 DNA markers を用いた "病理学的不可視" がんの可視化による革新的がん医療開発

山下 継史 (北里大・医・先進外科腫瘍学)

### SST6-6 Urinary microRNA profiles: identification of miR-210-3p as a novel non-invasive biomarker for pancreatic cancer

Takuma Kishimoto<sup>1</sup>, Shuhei Komatsu<sup>1</sup>, Taisuke Imamura<sup>1</sup>, Keiji Nishibeppu<sup>1</sup>, Jun Kiuchi<sup>1</sup>, Tomohiro Arita<sup>1</sup>, Toshiyuki Kosuga<sup>1</sup>, Hirotaka Konishi<sup>1</sup>, Ryo Morimura<sup>1</sup>, Atsushi Shiozaki<sup>1</sup>, Hisashi Ikoma<sup>1</sup>, Hiroki Taniguchi<sup>2</sup>, Eigo Otsuji<sup>1</sup> (<sup>1</sup>Dept. Surg., Div. digestive Surg., Kyoto Pref. Univ. Med., <sup>2</sup>Dept. Surg., Kyoto Second Red Cross Hosp.)

尿中遊離 microRNA による膵癌の新たな非侵襲診断法についての検討

岸本 拓磨<sup>1</sup>、小松 周平<sup>1</sup>、今村 泰輔<sup>1</sup>、西別府 敬士<sup>1</sup>、木内 純<sup>1</sup>、有田 智洋<sup>1</sup>、小菅 敏幸<sup>1</sup>、小西 博貴<sup>1</sup>、森村 玲<sup>1</sup>、塩崎 敦<sup>1</sup>、生駒 久視<sup>1</sup>、谷口 弘毅<sup>2</sup>、大辻 英吾<sup>1</sup> (京都府医大・消化器外科、<sup>2</sup>京都第二赤十字病院・外科)

### SST6-7 Minimally invasive telomerase-targeted molecular therapy in esophageal cancer patients unfit for standard treatments

Hiroshi Tazawa<sup>1,2</sup>, Shunsuke Tanabe<sup>1</sup>, Kazuhiro Noma<sup>1</sup>, Shinji Kuroda<sup>1,2</sup>, Shunsuke Kagawa<sup>1,3</sup>, Yasuo Urata<sup>4</sup>, Yasuhiro Shirakawa<sup>1</sup>, Toshiyoshi Fujiwara<sup>1</sup> (<sup>1</sup>Dept. Gastroenterological Surg., Okayama Univ. Grad. Sch. Med., <sup>2</sup>Ctr. for Innovative Clin. Med., Okayama Univ. Hosp., <sup>3</sup>Minimally Invasive Therapy Ctr., Okayama Univ. Hosp., <sup>4</sup>Oncology BioPharma Inc.)

標準治療が困難な食道がん患者に対する低侵襲なテロメラーゼ標的型分子治療法の開発

田澤 大<sup>1,2</sup>、田辺 俊介<sup>1</sup>、野間 和広<sup>1</sup>、黒田 新士<sup>1,2</sup>、香川 俊輔<sup>1,3</sup>、浦田 泰生<sup>4</sup>、白川 靖博<sup>1</sup>、藤原 俊義<sup>1</sup> (岡山大・院医・消化器外科、<sup>2</sup>岡山大・新医療研究開発セ、<sup>3</sup>岡山大・低侵襲治療セ、<sup>4</sup>オンコリスバイオファーマ (株))



## SST7 Recent advances in generation, biology, and treatment of gynecologic cancer

婦人科がんの発生・病態・治療に関する最新の知見

Chairpersons: Kiyoko Kato (Kyushu Univ., Dept. Gynecol. & Obstetrics, Grad. Sch. of Med. Sci.)  
Noriomi Matsumura (Dept. Obstetrics & Gynecol. Kindai Univ. Faculty of Med.)

座長：加藤 聖子 (九州大・院・医学研究院・生殖病態生理学)  
松村 謙臣 (近畿大・医・産科婦人科学教室)

In this symposium, six researchers will present new findings for gynecologic, especially ovarian, cancer. Initially, next generation sequencing data will reveal how cancer arises. Subsequently, a signal transduction analysis and a genomic analysis will show molecular characteristics of cancer. Then, importance of the interaction between cancer cells and their surrounding cells will be presented. Finally, new frontier in cancer research based on organoid culture will be shown. Thereafter, we will discuss new perspectives in the research of gynecologic cancer based on bioinformatics analysis, tumor microenvironment, and new culture methods.

## SST7-1 Cancer-associated gene mutations in ovarian endometriosis and normal uterine endometrium

Kosuke Yoshihara (Dept. Obstet. Gynecol., Niigata Univ. Grad. Sch. Med. Dent. Sci.)

子宮内膜症および正常子宮内膜における癌関連遺伝子変異  
吉原 弘祐 (新潟大・医・産婦人科)

SST7-2  $G\alpha_{13}$ -mediated LATS1 down-regulation contributes to epithelial-mesenchymal transition in ovarian cancer

Hiroshi Yagi, Keisuke Kodama, Ichiro Onoyama, Kazuo Asanoma, Kiyoko Kato (Dept. Obstet. Gynecol., Kyushu Univ.)

卵巣癌の進展における  $G\alpha_{13}$  シグナルの役割

八木 裕史、小玉 敬亮、小野山 一郎、浅野間 和夫、加藤 聖子 (九州大・医・産婦人科)

## SST7-3 Elucidation of the disruption of DNA repair pathway and intratumor heterogeneity in high grade serous ovarian cancer

Hisamitsu Takaya<sup>1</sup>, Hidekatsu Nakai<sup>1</sup>, Kazuko Sakai<sup>2</sup>, Kazuto Nishio<sup>2</sup>, Noriomi Matsumura<sup>1</sup> (<sup>1</sup>OB/GYN, Kindai Univ. Fac. Med., <sup>2</sup>Genome Biol., Kindai Univ. Fac. Med.)

卵巣高異型度漿液性癌のゲノム解析による DNA 修復機構の破綻および腫瘍内不均一性の解明

高矢 寿光<sup>1</sup>、中井 英勝<sup>1</sup>、坂井 和子<sup>2</sup>、西尾 和人<sup>2</sup>、松村 謙臣<sup>1</sup> (近畿大・医・産婦人科、<sup>2</sup>近畿大・医・ゲノム生物学)

## SST7-4 Carcinoma-associated mesothelial cells as a novel therapeutic target in epithelial ovarian cancer

Masato Yoshihara<sup>1</sup>, Hiroaki Kajiyama<sup>1</sup>, Mai Sugiyama<sup>2</sup>, Yoshihiro Koya<sup>2</sup>, Akira Yokoi<sup>1</sup>, Shohei Iyoshi<sup>1</sup>, Fumitaka Kikkawa<sup>1</sup> (<sup>1</sup>Dept. Obstet. Gynecol. Univ. Nagoya Sch. Med., <sup>2</sup>Bell Res. Ctr., Dept. Obstet. Gynecol. Univ. Nagoya Sch. Med.)

癌関連上皮細胞の卵巣癌腹膜播種進展における役割

吉原 雅人<sup>1</sup>、梶山 広明<sup>1</sup>、杉山 麻衣<sup>2</sup>、小屋 美博<sup>2</sup>、横井 暁<sup>1</sup>、伊古 祥平<sup>1</sup>、吉川 史隆<sup>1</sup> (名古屋大・医・産婦人科、<sup>2</sup>名古屋大・医)

## SST7-5 Immunotherapy targeting MDSC in ovarian cancer

Kaoru Abiko<sup>1</sup>, Naoki Horikawa<sup>2</sup>, Mana Taki<sup>3</sup>, Junzo Hamanishi<sup>2</sup>, Ken Yamaguchi<sup>2</sup>, Masaki Mandai<sup>2</sup> (<sup>1</sup>Dept. Obstetrics & Gynecol., Kyoto Med. Ctr., <sup>2</sup>Dept. Gynecol. & Obstetrics, Kyoto Univ. Grad. Sch. of Med., <sup>3</sup>Dept. Gynecologic Oncology & Cancer Biol., MD Anderson Cancer Ctr.)

卵巣癌における MDSC を標的とした免疫療法の可能性

安彦 郁<sup>1</sup>、堀川 直城<sup>2</sup>、滝 真奈<sup>2</sup>、濱西 潤三<sup>2</sup>、山口 建<sup>2</sup>、万代 昌紀<sup>2</sup> (京都医療セ・産科婦人科、<sup>2</sup>京都大・医・婦人科学産科学、<sup>3</sup>MD Anderson Cancer Ctr.)

## SST7-6 An integrated study of gynecologic cancers by organoid-based approaches

Yoshiaki Maru, Yoshitaka Hippo (Dept. Mol. Carinog., Chiba Cancer Ctr. Res. Inst.)

オルガノイドを用いた婦人科がんの統合的研究

丸 喜明、筆宝 義隆 (千葉県がんセ・研・発がん制御)

## E25

## Bioinformatics

バイオインフォマティクス

Chairperson: Naoki Honda (Grad. Sch. of Biostudies, Kyoto Univ.)

座長：本田 直樹 (京都大・院生命)

## E-3049 Exploration of mutated protein in sarcomas using proteogenomics software MuNAGe

Emi Hattori<sup>1,2</sup>, Hitoshi Ichikawa<sup>1</sup>, Akira Kawai<sup>3</sup>, Tadashi Kondo<sup>1</sup> (<sup>1</sup>Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Grad. Sch. of Comp. Human Sci., Univ. of Tsukuba, <sup>3</sup>Natl. Cancer Ctr. Hosp.)

プロテオゲノミクスソフトウェア MuNAGe を用いた肉腫変異タンパク質の探索

服部 恵美<sup>1,2</sup>、市川 仁<sup>1</sup>、川井 章<sup>3</sup>、近藤 格<sup>1</sup> (国立がん研セ・研、<sup>2</sup>筑波大・院人間総合科学研究科、<sup>3</sup>国立がん研セ・中央病院)

## E-3050 Bioinformatics for precision medicine in the starting year of everyday cancer genomic diagnosis

Mamoru Kato<sup>1</sup>, Eisaku Furukawa<sup>1</sup>, Daichi Narushima<sup>1</sup>, Momoko Nagai<sup>1</sup>, Takashi Kubo<sup>2</sup>, Kuniko Sunami<sup>3</sup>, Mayuko Kitami<sup>3</sup>, Kota Itahashi<sup>4</sup>, Tatsuhiko Tsunoda<sup>5</sup>, Shunsuke Kondo<sup>6</sup>, Noboru Yamamoto<sup>6</sup>, Hitoshi Ichikawa<sup>6</sup>, Takashi Kohno<sup>7</sup> (<sup>1</sup>Dept. Bioinformatics, Res. Inst., NCC, <sup>2</sup>Div. Translational Res., EPOC, NCC, <sup>3</sup>Dept. Path. & Clin. Lab., Hosp., NCC, <sup>4</sup>Dept. Exp. Therap., EPOC, NCC, <sup>5</sup>Dept. Bio. Sci., Grad. Sch. Sci., Univ. Tokyo, <sup>6</sup>Dept. Clin. Genomics, Res. Inst., NCC, <sup>7</sup>Div. Genome Biol., Res. Inst., NCC)

がんゲノム日常診断元年における、精密医療のためのバイオインフォマティクス

加藤 護<sup>1</sup>、古川 英作<sup>1</sup>、成島 大智<sup>1</sup>、永井 桃子<sup>1</sup>、久保 崇<sup>2</sup>、角南 久仁子<sup>3</sup>、北見 繭子<sup>3</sup>、板橋 耕太<sup>4</sup>、角田 達彦<sup>5</sup>、近藤 俊輔<sup>6</sup>、山本 昇<sup>4</sup>、市川 仁<sup>6</sup>、河野 隆志<sup>7</sup> (国立がん研セ・研・バイオインフォ、<sup>2</sup>国立がん研セ・先端医療開発セ・TR グループ、<sup>3</sup>国立がん研セ・中央病院病理・臨床検査科、<sup>4</sup>国立がん研セ・先端医療開発セ・新薬臨床開発、<sup>5</sup>東京大・理学系・生物科学、<sup>6</sup>国立がん研セ・研・臨床ゲノム、<sup>7</sup>国立がん研セ・研・ゲノム生物)

## E-3051 Predicting Histological Type of Lung Cancer using Deep Neural Networks with Interpretable Thin Parameters

Kazuma Kobayashi<sup>1,2</sup>, Amina Bolatkan<sup>1,2</sup>, Norio Shinkai<sup>1,2</sup>, Ryuji Hamamoto<sup>1,2</sup> (<sup>1</sup>Div. Mol. Mod. Cancer Biol., Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Cancer Transl. Res. Team, RIKEN Ctr. for AIP project)

解釈可能な特徴抽出を可能にする深層学習モデルによる肺がん病理型の予測

小林 和馬<sup>1,2</sup>、Amina Bolatkan<sup>1,2</sup>、新海 典夫<sup>1,2</sup>、浜本 隆二<sup>1,2</sup> (国立がん研セ・研・がん分子修飾制御学、<sup>2</sup>理研・革新知能統合研究セ・がん探索医療)

## E-3052 Computational modeling identifies optimal use of EGFR tyrosine kinase inhibitors for lung cancer patients

Hiroshi Haeno<sup>1</sup>, Susumu S. Kobayashi<sup>2</sup> (<sup>1</sup>Dept. Comput. Biol. & Med. Sci., Univ. Tokyo, <sup>2</sup>Div. Transl. Genomics, Natl. Cancer Ctr. EPOC)

EGFR 変異陽性肺がんに対する分子標的薬治療において薬剤耐性出現による再発を遅らせる投薬スケジュールの数理学的研究

波江野 洋<sup>1</sup>、小林 進<sup>2</sup> (東京大・新領域・メディカル情報生命専攻、<sup>2</sup>国立がん研セ・先端医療開発セ・ゲノム TR)

## E-3053 Study of an Evidence-Based Application System to Improve Efficiency of Diagnostic Workflow for Oncologic Pathologists

Yoko Nakanishi<sup>1</sup>, Yuichiro Gomi<sup>2</sup>, Haruna Nishimaki<sup>1</sup>, Hiroko Kobayashi<sup>1</sup>, Sumie Ohni<sup>1</sup>, Yoshiaki Kondo<sup>3</sup>, Shinobu Masuda<sup>1</sup> (<sup>1</sup>Divs. Oncol. Pathol., Nihon Univ., Sch. Med., <sup>2</sup>Sci. Tech., Nihon Univ., <sup>3</sup>Divis. Health Care Serv. Manag., Nihon Univ., Sch. Med.)

エビデンスに基づく病理診断ガイドアプリケーションシステムの構築

中西 陽子<sup>1</sup>、五味 悠一郎<sup>2</sup>、西巻 はるな<sup>1</sup>、小林 博子<sup>1</sup>、大荷 澄江<sup>1</sup>、近藤 義明<sup>3</sup>、増田 しのぶ<sup>1</sup> (日本大・医・腫瘍病理、<sup>2</sup>日本大・理工、<sup>3</sup>日本大・医・医療管理)

## E-3054 CTselect: a comprehensive sequencing analysis to predict actionable therapeutics for personalized cancer therapies

Po-Yuan Chen<sup>1,2</sup>, Xiang-Zhen Chen<sup>2</sup>, Ting-Hsuan Sun<sup>2</sup>, Kuan-Ting Liu<sup>1,2</sup>, Chien-Li Lu<sup>1,2</sup>, Hsin-Tzu Huang<sup>2</sup>, Pei-Wen Liu<sup>2</sup>, Tai-Ming Ko<sup>2,3,4,5</sup> (<sup>1</sup>Inst. of Bioinformatics & Systems Biol., Natl. Chiao Tung Univ., Taiwan., <sup>2</sup>Dept. Biological Sci. & Tech., Natl. Chiao Tung Univ., Taiwan., <sup>3</sup>Inst. of Biomed. Sci., Academia Sinica, Taiwan., <sup>4</sup>IDS2B, Natl. Chiao Tung Univ., Taiwan., <sup>5</sup>Grad. Inst. of Integrated Med., China Med. Univ., Taiwan.)

## Special Programs

Room 10 Sep. 28 (Sat.) 14:50-16:50

J

## SP7 Encouragement of Study Abroad 2019

若手企画2：留学のすすめ2019

Chairpersons: Atsuo Sasaki (Univ. of Cincinnati/Keio Univ.)  
Tomoichiro Miyoshi (Grad. Sch. of Biostudies Kyoto Univ.)

座長：佐々木 敦朗 (シンシナティ大/慶應大)  
三好 知一郎 (京都大・院生命)

Serendipity favors only the prepared mind (セレンディピティは備えのある心  
にしか恵まれない)

科学的発見を失敗や偶然の中から見つけ出す力 - セレンディピティについてフランスの細菌学者ルイ・パスツールが述べたのは19世紀のことですが、相対的かつ絶対的な研究力低下が懸念される21世紀の日本においてもこの言葉の重要性が改めて実感されます。日本人研究者がグローバル競争を勝ち抜くことを考えたとき、国際的な研究力を育み、学際的なネットワークを広げる海外留学は必須のものとしてきました。しかし、様々な雑務に忙殺される日々の中で、留学生向けのフェローシップ、複雑なサポートシステムなどについて情報収集を行うのは億劫で、実際に行ってみないと具体的なイメージも湧かず不安ばかりが募ります。

海外日本人研究者ネットワーク (United Japanese researchers Around the world, UJA) は2013年以降、留学を志す、またはちょっとだけ興味がある学生、院生、ポスドクなど若手研究者のネットワーキングを強力に支援し、実際に海外で活躍する日本人PI、ポスドクの生の声を届けてきました。今回、がん学会に参加される若手研究者の方に向けて、ラボ選びのコツ、留学に向けたフェローシップの比較検討、留学先の研究環境が研究フェーズごとにどう違うのか、さらに、おそらく一番興味もたれる留学後のキャリアパスを含めて、情報共有/パネルディスカッションを行います。そして、留学マインドや国際的・学際的研究を後押しする人脈と"prepared mind"を、世界で活躍し我が国を主導する日本人研究者の未来につなげます！

SP7-1 Tadayuki Akagi (Dept. Stem Cell Biol., Kanazawa Univ.)  
赤木 紀之 (金沢大・医薬保健・再生分子医学)

SP7-2 Takeya Adachi (AMED)  
足立 剛也 (国立研究開発法人日本医療研究開発機構)

## パネリスト

SP7-3 Satoru Osuka (Dept. Neurosurgery, Emory Univ.)  
大須賀 寛 (エモリー大・脳神経外科)

SP7-4 Naoya Sakamoto (Dept. Mol. Path., Hiroshima Univ.)  
坂本 直也 (広島大・分子病理学)

SP7-5 Saeko Nakajima (Dept. Dermatology, Kyoto Univ. Grad. Sch. of Med.)  
中島 沙恵子 (京都大・皮膚科)

SP7-6 Yoichiro Uchida (Dept. Gastroenterological Surg. & Oncology, Tazuke Kofukai Med. Inst., Kitano Hosp.)  
内田 洋一朗 ((公財)田附興風会医学研・北野病院・消化器外科)

SP7-7 Jun Ishihara (Univ. of Chicago)  
石原 純 (シカゴ大)

SP7-8 Mai Tanaka (Dept. Radiation Oncology, Univ. of Florida)  
田中 舞 (フロリダ大・放射線腫瘍学)

SP7-9 Takaomi Sanda (Cancer Sci. Inst. of Singapore, Natl. Univ. of Singapore)  
三田 貴臣 (シンガポール国立大・癌科学研)

SP7-10 Yuuri Hashimoto (Oncology Res. Laboratories I, Daiichi Sankyo, Co., Ltd.)  
橋本 悠里 (第一三共(株)・オンコロジー第一研)



Room 11 Sep. 28 (Sat.) 13:30-14:45

E

E3-2 Inflammation and cancer  
炎症とがんChairperson: Kazutoshi Fujita (Dept. Urology, Osaka Univ., Grad. Sch. Med.)  
座長: 藤田 和利 (大阪大・院医・器官制御外科学 (泌尿器科学))

## E-3007 The significance of Warburg effect found in nonalcoholic steatohepatitis

Kohei Taniguchi<sup>1,2</sup>, Yosuke Inomata<sup>1</sup>, Nobuhiko Sugito<sup>3</sup>, Kazumasa Komura<sup>2</sup>, Yukihiko Akao<sup>3</sup>, Kazuhisa Uchiyama<sup>1</sup> (<sup>1</sup>Dept. Gastro Surg., Osaka Med. College, <sup>2</sup>Dept. Trans. Res, Osaka Med. College, <sup>3</sup>Uni. Grad. Sch., Drug, Med. Info. Sci., Gifu Univ.)

## 非アルコール性脂肪肝炎におけるワールブルグ効果獲得の意義

谷口 高平<sup>1,2</sup>, 猪俣 陽介<sup>1</sup>, 杉野 信彦<sup>3</sup>, 小村 和正<sup>2</sup>, 赤尾 幸博<sup>3</sup>, 内山 和久<sup>1</sup> (<sup>1</sup>大阪医大・医・消化器外科, <sup>2</sup>大阪医大・医・TR部門, <sup>3</sup>岐阜大・連創・医療情報研究所)

## E-3008 Anti-tumoral effect of IL2-expressing HSV amplicon vector and oncolytic virus HF10

Shinichi Esaki<sup>1,2</sup>, Fumi Goshima<sup>1</sup>, Gaku Takano<sup>1,2</sup>, Yoshitaka Sato<sup>1</sup>, Takayuki Murata<sup>1,3</sup>, Hiroshi Kimura<sup>1</sup> (<sup>1</sup>Dept. Virology, Grad. Sch. of Med., Nagoya Univ., <sup>2</sup>Dept. of Otolaryngology, Head & Neck Surg., Nagoya City Univ., <sup>3</sup>Dept. of Virology & Parasitology, Fujita Med. Univ.)

## IL2 発現 HSV アンプリコンの抗腫瘍効果

江崎 伸一<sup>1,2</sup>, 五島 典<sup>1</sup>, 高野 学<sup>1,2</sup>, 佐藤 好隆<sup>1</sup>, 村田 貴之<sup>1,3</sup>, 木村 宏<sup>1</sup> (<sup>1</sup>名古屋大・医・ウイルス, <sup>2</sup>名古屋市大・医・耳鼻, <sup>3</sup>藤田医大・医・ウイルス)

## E-3009 HMGB1 is involved in the progression of esophageal squamous cell carcinoma

Daiki Matsubara, Hirotaka Konishi, Katsutoshi Shoda, Tomohiro Arita, Toshiyuki Kosuga, Shuhei Komatsu, Atsushi Shiozaki, Takeshi Kubota, Hitoshi Fujiwara, Kazuma Okamoto, Eigo Otsuji (Div. Digestive Surg., Dept. Surg., Kyoto Pref. Univ. Med.)

## HMGB1 は食道扁平上皮癌の進行に関与する

松原 大樹, 小西 博貴, 庄田 勝俊, 有田 智洋, 小菅 敏幸, 小松 周平, 塩崎 敦, 窪田 健, 藤原 斉, 岡本 和真, 大辻 英吾 (京都府医大・消化器外科)

## E-3010 Blockade of NK2R-mediated neuropeptide signaling suppresses malignancy of colon cancer cells

Huihui Xiang<sup>1,2</sup>, Yujiro Toyoshima<sup>2</sup>, Shinichi Hashimoto<sup>3</sup>, Kazuo Ikeo<sup>4</sup>, Hiroya Kobayashi<sup>5</sup>, Shigenori Homma<sup>2</sup>, Hideki Kawamura<sup>2</sup>, Norihiko Takahashi<sup>2</sup>, Akinobu Takekomi<sup>2</sup>, Hidemitsu Kitamura<sup>1</sup> (<sup>1</sup>Div. Functional Immunol., Inst. Genetic Med., Hokkaido Univ., <sup>2</sup>Dept. Gastroenterol. Surg. I, Hokkaido Univ., Grad. Sch. Med., <sup>3</sup>Dept. Integrative. Med. Longevity, Kanazawa Univ., Grad. Sch. Med. Sci., <sup>4</sup>Lab. DNA Data Analysis, Natl. Inst. Genetics, <sup>5</sup>Dept. Phtho., Asahikawa Med. Univ.)

## NK2R 介した神経ペプチドシグナルの遮断は大腸がん細胞の悪性化を抑制する

項 慧慧<sup>1,2</sup>, 豊島 雄二郎<sup>2</sup>, 橋本 真一<sup>3</sup>, 池尾 一穂<sup>4</sup>, 小林 博也<sup>5</sup>, 本間 重紀<sup>2</sup>, 川村 秀樹<sup>2</sup>, 高橋 典彦<sup>2</sup>, 武富 紹信<sup>2</sup>, 北村 秀光<sup>1</sup> (<sup>1</sup>北海道大・遺研・免疫機能学, <sup>2</sup>北海道大・院医・消化器外科学 I, <sup>3</sup>金沢大・医薬保健学・未病長寿医学, <sup>4</sup>国立遺伝研・遺伝情報分析, <sup>5</sup>旭川医大・医・病理学)

## E-3011 Inflammatory and mitogenic signals drive IL23A secretion independent of IL12B in intestinal epithelial cells

Dominic C Voon<sup>1,2</sup>, Zachary W Yong<sup>1</sup>, Kee S Lim<sup>3</sup>, Huajing Wang<sup>4</sup>, Tuan Z Tan<sup>3</sup>, Daisuke Yamamoto<sup>1,5</sup>, Noriyuki Inaki<sup>6</sup>, Hiroko Oshima<sup>1,7</sup>, Masanobu Oshima<sup>1,7</sup>, Yoshiaki Ito<sup>3</sup> (<sup>1</sup>Div. Genetics, Cancer Res. Inst., Kanazawa Univ., <sup>2</sup>Inst. for Frontier Sci. Initiative, Kanazawa Univ., <sup>3</sup>Cancer Sci. Inst. of Singapore, Natl. Univ. of Singapore, <sup>4</sup>Inst. of Bioengineering & Nanotechnology, A\*STAR, Singapore, <sup>5</sup>Dept. Gastroenterological Surg., Ishikawa Pref. Central Hosp., <sup>6</sup>Dept. Digestive & General Surg., Juntendo Univ. Urayasu Hosp., <sup>7</sup>WPI Nano-Life Sci. Inst., Kanazawa Univ.)

## E-3012 Effect of clonorchis sinensis on occurrence of cholangiocarcinoma induced by DEN in SD rats

Yapeng Qi<sup>1</sup>, Junwen Hu<sup>1</sup>, Jiahao Liang<sup>1</sup>, Xiaoyin Hu<sup>1</sup>, Bangde Xiang<sup>1</sup>, Ning Ma<sup>2</sup> (<sup>1</sup>Affiliated Cancer Hosp. of Guangxi Med. Univ., <sup>2</sup>Grad. Sch. of Health Sci, Suzuka Univ. of Med. Sci)

Room 11 Sep. 28 (Sat.) 14:45-16:00

J

J22 Palliative medicine and anti-cancer substances  
緩和医療とがん細胞抑制剤

Chairperson: Shogo Ehata (Dept. Mol. Path., Grad. Sch. of Med., The Univ. of Tokyo/Environmental Sci. Ctr., The Univ. of Tokyo)

座長: 江幡 正悟 (東京大・院医)

## J-3025 A pilot survey on the outpatient chemotherapy unit of national university hospitals in Japan for early palliative care

Hidenori Takahashi (Community Med. Div., Hosp., Ryukyus Univ.)

外来通院治療中のがん患者に対する早期緩和ケア提供体制構築に向けた、国立大学病院の外来化学療法室の運用実態調査  
高橋 秀徳 (琉球大・病院・地域医療部)

## J-3026 Sulindac sulfone inhibits the mTORC1 pathway in colon cancer cells by directly targeting VDAC1 and VDAC2

Yuichi Aono<sup>1</sup>, Mano Horinaka<sup>1,2</sup>, Yosuke Izumi<sup>1</sup>, Shusuke Yasuda<sup>1,2</sup>, Motoki Watanabe<sup>1</sup>, Toshiyuki Sakai<sup>1,2</sup> (<sup>1</sup>Dept. Mol. Target. Cancer Prev., Kyoto Pref. Univ. Med., <sup>2</sup>Dept. Drug Discov. Med., Kyoto Pref. Univ. Med.)

スリンドク代謝体であるスリンドクスルホンによる大腸癌細胞増殖抑制作用の機序の解明に向けた新規標的分子の同定

青野 裕一<sup>1</sup>, 堀中 真野<sup>1,2</sup>, 飯泉 陽介<sup>1</sup>, 安田 周祐<sup>1,2</sup>, 渡邊 元樹<sup>1</sup>, 酒井 敏行<sup>1,2</sup> (<sup>1</sup>京都府医大・院医・分子標的癌予防医学, <sup>2</sup>京都府医大・院医・創薬医学)

## J-3027 A study of the impact of harmonizing palliative care for the advanced cancer patients in a tertiary cancer hospital

Natsuki Hoshino (Palliative Care Ctr., Cancer Inst. Hosp. of JFCR)

当院における進行がん患者に対する緩和ケアの提供体制に関する一考察

星野 奈月 ((公財) がん研・有明病院・緩和ケアセ)

## J-3028 Imbalance of Interleukin-6 and Transforming growth factor beta1 underlying the onset of postoperative delirium

Ryoichi Sadahiro<sup>1,2</sup>, James James<sup>1,2,3</sup>, Ken Shimizu<sup>2</sup>, Teruhiko Yoshida<sup>4</sup>, Yasuhito Uezono<sup>5</sup>, Sei Manabe<sup>6</sup>, Kazunori Aoki<sup>1</sup> (<sup>1</sup>Dept. Immune Med., Res. Inst., Natl. Cancer Ctr. Japan, <sup>2</sup>Dept. Psycho-oncology, Natl. Cancer Ctr. Hosp., Natl. Cancer Ctr. Japan, <sup>3</sup>Med. Sci., Univ. of Exeter Med. Sch., <sup>4</sup>Dept. Clin. Genomics, Res. Inst., Natl. Cancer Ctr. Japan, <sup>5</sup>Div. Cancer Pathophysiology, Res. Inst., Natl. Cancer Ctr.)

## 術後せん妄発症におけるインターロイキン6 とトランスフォーミング増殖因子-β1 の偏り

貞廣 良一<sup>1,2</sup>, ジェームス フィオン<sup>1,2,3</sup>, 清水 研<sup>2</sup>, 吉田 輝彦<sup>4</sup>, 上園 保仁<sup>5</sup>, 真鍋 星<sup>5</sup>, 青木 一教<sup>1</sup> (<sup>1</sup>国立がん研セ・研・免疫創薬部門, <sup>2</sup>国立がん研セ・中央病院・精神腫瘍科, <sup>3</sup>エクセター大・医・メディカルサイエンス, <sup>4</sup>国立がん研セ・研・臨床ゲノム解析部門, <sup>5</sup>国立がん研セ・研・がん患者病態生理研究分野)

## J-3029 Response difference between normal colon epithelium-like cells and colon cancer cells under sulforaphane treatment

Takumi Narita<sup>1</sup>, Gen Fujii<sup>2</sup>, Masami Komiya<sup>1</sup>, Takahiro Hamoya<sup>1,3</sup>, Yui Matsuzawa<sup>1,3</sup>, Kouhei Miki<sup>1,3</sup>, Takahiro Teruya<sup>1,3</sup>, Michihiro Mutoh<sup>1</sup> (<sup>1</sup>Ctr. For Public Health Sci., Natl. Cancer Ctr., <sup>2</sup>Central RI Div., Natl. Cancer Ctr., <sup>3</sup>Grad. Sch. of Biol. Sci. & Tech., Tokyo Univ. of Sci.)

## 大腸正常上皮様細胞と大腸がん細胞の Sulforaphane による効果の違い

成田 匠<sup>1</sup>, 藤井 元<sup>2</sup>, 小宮 雅美<sup>1</sup>, 鯉澤 隆博<sup>1,3</sup>, 松澤 優衣<sup>1,3</sup>, 三木 光平<sup>1,3</sup>, 照屋 貴宏<sup>1,3</sup>, 武藤 倫弘<sup>1</sup> (<sup>1</sup>国立がん研セ・社会と健康研究セ, <sup>2</sup>国立がん研セ・研・RI 実験施設, <sup>3</sup>東理大・院・基礎工)

## J-3030 Chemopreventive effects of dietary isoflavone in conditional Pten/Trp53-deficient mouse model of prostate cancer

Yasunori Mori<sup>1</sup>, Marco A. De Velasco<sup>1,2</sup>, Yurie Kura<sup>1</sup>, Kazuko Sakai<sup>2</sup>, Kazuhiro Yoshikawa<sup>3</sup>, Kazuto Nishio<sup>2</sup>, Hirotsugu 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., <sup>3</sup>Aichi Med. Univ.)

## イソフラボン摂取はマウス前立腺癌転移モデルにおいて癌の進行を抑制し生存期間を延長させる

森 康範<sup>1</sup>, デベラスコ マルコ<sup>1,2</sup>, 倉 由史恵<sup>1</sup>, 坂井 和子<sup>2</sup>, 吉川 和宏<sup>3</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, <sup>3</sup>愛知医大)

English Oral Sessions

Room 12 Sep. 28 (Sat.) 13:30-14:45 E

E2 Animal models for cancer  
動物モデル

Chairperson: Ryoji Yao (Dept. Cell Biol., Cancer Inst., JFCR)  
座長: 八尾 良司 ((公財) がん研・研・細胞生物部)

**E-3061 KDM6A deficiency activates inflammatory pathways and causes bladder cancer in cooperation with p53 dysfunction**  
Kohei Kobatake<sup>1,2</sup>, Kenichiro Ikeda<sup>1,4</sup>, Tetsutaro Hayashi<sup>1</sup>, Kazuhiro Sentani<sup>3</sup>, Shigeo Horie<sup>3</sup>, Wataru Matsubara<sup>3</sup>, Akio Matsubara<sup>1</sup>, Hiroaki Honda<sup>6</sup> (1)Dept. Urology, Hiroshima Univ., (2)Dept. Disease Model, RIRBM, Hiroshima Univ., (3)Dept. Mol. Path., Hiroshima Univ., (4)Dept. Urol. Sci., UBC, Canada, (5)Dept. Urology, Juntendo Univ., (6)Dept. Disease model, Tokyo women's Med. Univ.)  
**KDM6A 欠失は炎症性微小環境形成を促進し、p53 の機能欠損と協調して膀胱癌を発症する**  
小島 浩平<sup>1,2</sup>、池田 健一郎<sup>1,4</sup>、林 哲太郎<sup>1</sup>、仙谷 和弘<sup>3</sup>、堀江 重郎<sup>5</sup>、安井 弥<sup>3</sup>、松原 昭郎<sup>1</sup>、本田 浩章<sup>6</sup> (1)広島大・腎泌尿器科学、(2)広島大・原医研・疾患モデル解析、(3)広島大・分子病理学、(4)プリティッシュュコロニア大・泌尿器科学、(5)順天堂大・泌尿器科学、(6)東京女子医大・疾患モデル研究分野)

E-3062 Withdrawn

**E-3063 Synthetic lethality between Apc mutation and MyD88 loss in intestinal tumor epithelial cells**  
Rie Kajino<sup>1</sup>, Teruaki Fujishita<sup>1</sup>, Makoto M. Taketo<sup>2</sup>, Masahiro Aoki<sup>1,3</sup> (1)Div. Pathophysiology, Aichi Cancer Ctr. Res. Inst., (2)Div. Exp. Therap., Kyoto Univ. Grad. Sch. Med., (3)Div. Cancer Physiol., Nagoya Univ. Grad. Sch. Med.)  
**MyD88 による Apc 変異腸上皮細胞の合成致死メカニズムの解明**  
梶野 リエ、藤下 晃章、武藤 誠、青木 正博<sup>1,3</sup> (1)愛知県がんセンター・がん病態生理、(2)京都大・院医・遺伝薬理学、(3)名古屋大・院医・がん病態生理)

**E-3064 Visualization of tumor microenvironment using tissue-clearing technology**  
Kei Takahashi, Shimpei I Kubota, Shogo Ehata, Kohei Miyazono (Dept., Mol. Path., Grad. Sch. Med., Univ. Tokyo)  
**組織透明化を用いたがん微小環境の解析**  
高橋 恵生、久保田 晋平、江幡 正悟、宮園 浩平 (東京大・院医・分子病理)

**E-3065 A novel gene expression signature for colorectal cancer metastasis**  
Jun Won Park<sup>1,2</sup>, Hiroko Oshima<sup>1</sup>, Mizuho Nakayama<sup>1</sup>, Masanobu Oshima<sup>1</sup> (1)Div. Genetics, Cancer Res. Inst., Kanazawa Natl. Univ., (2)College of Biomed. Sci., Kangwon Natl. Univ., Korea)

**E-3066 Development of the first transgenic animal model for IRF4-induced lymphoid malignancy**  
Stella Amanda<sup>1</sup>, Regina Wong<sup>1</sup>, Tze King Tan<sup>1</sup>, Brendan Pang<sup>1,2</sup>, Muhammad Zulfakar Ali<sup>1</sup>, Ee Yong Foo<sup>3</sup>, Zhi Yuan Gong<sup>3</sup>, Soo Yong Tan<sup>2</sup>, Shinsuke Iida<sup>3</sup>, Takaomi Sanda<sup>1</sup> (1)Cancer Sci. Inst. of Singapore, NUS, (2)Dept. Path., Yong Loo Lin Sch. of Med., NUS, (3)Dept. Biological Sci., NUS, (4)Dept. Hematology & Oncology, NCU Grad. Sch. of Med. Sci.)

English Oral Sessions

Room 12 Sep. 28 (Sat.) 14:45-16:00 E

E14-12 Basic and translational research in Hepato-Biliary tract carcinoma  
肝胆道がんの基礎と臨床研究

Chairperson: Akinobu Taketomi (Dept. Gastroenterol. Surg. 1, Hokkaido Univ. Grad. Sch. Med.)

座長: 武富 紹信 (北海道大・院医・消化器外科 I)

**E-3067 Overactivation of hepatocyte p53 activates hepatic progenitor cells and promotes hepatocarcinogenesis**  
Yuki Makino, Hayato Hikita, Takahiro Kodama, Ryotaro Sakamori, Tomohide Tatsumi, Tetsuo Takehara (Dept. Gastroenterol. Hepatol. Osaka. Univ. Grad. Sch. Med.)  
**肝細胞における p53 の過剰な活性化は肝前駆細胞を活性化し肝発癌を促進する**  
牧野 祐紀、疋田 隼人、小玉 尚宏、阪森 亮太郎、巽 智秀、竹原 徹郎 (大阪大・医・消化器内科)

**E-3068 Biliary tract cancer mouse models based on transplantation of tumor-initiating cells with cancer stem cell properties**  
Akiyoshi Kasuga<sup>1,2,3</sup>, Hideyuki Saya<sup>1</sup>, Yoshimi Arima<sup>1</sup> (1)Div. Gene Regulation, Sch. of Med., Keio Univ., (2)Div. Gastroenterology & Hepatology, Sch. of Med., Keio Univ., (3)Dept. Gastroenterology, Cancer Inst. Hosp.)  
**オルガノイド技術を用いたヒトがん遺伝子を導入した肝内胆管がん、胆嚢がん、肝外胆管がんのシンジェニックマウスモデルの開発**  
春日 章良<sup>1,2,3</sup>、佐谷 秀行<sup>1</sup>、有馬 好美<sup>1</sup> (1)慶應大・医・遺伝子制御部門、(2)慶應大・医・消化器内科、(3) (公財) がん研・有明病院・肝胆膵内科)

**E-3069 Coactivation of the Notch and RAS pathways in hepatocytes induces sarcomatoid carcinoma in mice**  
Yuji Nishikawa, Masahiro Yamamoto, Takako Ooshio, Bing Xin, Masanori Goto, Yuki Kamikokura, LingTong Meng, Yoko Okada (Div. Tumor Pathol., Dept. Pathol., Asahiakawa Med. Univ.)  
**Notch および RAS 経路活性化による肝細胞からの肉腫様肝癌の誘導**  
西川 祐司、山本 雅大、大塩 貴子、辛 氷、後藤 正憲、上小倉 佑樹、孟 怜童、岡田 陽子 (旭川医大・医・腫瘍病理)

**E-3070 HDAC6 Suppresses Let-7i-5p to Elicit TSP1/CD47-mediated Anti-tumorigenesis and Phagocytosis of Hepatocellular Carcinoma**  
Suk Woo Nam, Hee Doo Yang (Dept. of Path., The Catholic Univ. of Korea)

**E-3071 Targeting galectin-1 paralyzes pro-inflammatory effect of carcinoma-associated fibroblasts on hepatocellular carcinoma**  
Ming-Heng Wu, Kai-Huei Yang, Wan-Lin Tsui, Chih-yi Li (Grad. Inst. of Translational Med., Taipei Med. Univ.)

**E-3072 Impact of hyperglycemia and aberrant glucose metabolism on the progression of cholangiocarcinoma**  
Wunchana Seubwai<sup>1,4</sup>, Unchalee Thonsri<sup>2,4</sup>, Ubonrat Thamrongwarangoon<sup>2,4</sup>, Charupong Saengboonmee<sup>2,4</sup>, Sakda Warasawapati<sup>3</sup>, Chaisiri Wongkham<sup>2,4</sup>, Ubon Cha'on<sup>2</sup>, Sopit Wongkham<sup>2,4</sup> (1)Dept. ForeMed., Faculty of Med., Khon Kaen Univ., Thailand., (2)Dept. Biochem., Faculty of Med., Khon Kaen Univ., Thailand., (3)Dept. Path., Faculty of Med., Khon Kaen Univ., Thailand., (4)Cholangiocarcinoma Res. Inst., Khon Kaen Univ., Thailand.)

Room 13 Sep. 28 (Sat.) 13:30-14:45

E

**E6-1 Replication stress and genome instability**  
 複製ストレスとゲノム不安定性

Chairperson: Sugiko Watanabe (Dept. Mol. Microbiol., Res. Inst. for Microbial Diseases, Osaka Univ.)

座長: 渡邊 すぎ子 (大阪大・微研・遺伝子生物学分野)

**E-3073 SMARCA4 deficiency Confers Sensitivity to ATR Inhibitor in Lung Adenocarcinoma Cells**

 Bunsyo Shiotani<sup>1</sup>, Kiminori Kurashima<sup>1</sup>, Takashi Kohno<sup>2</sup> (<sup>1</sup>Div. Cell Signaling Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Div. Genome Biol. Natl. Cancer Ctr. Res. Inst.)

 肺腺癌細胞における SMARCA4 欠損を標的とした ATR 阻害療法  
 塩谷 文章<sup>1</sup>、倉島 公憲<sup>1</sup>、河野 隆志<sup>2</sup> (国立がん研セ・研・細胞情報学、<sup>2</sup>国立がん研セ・研・ゲノム生物学)

**E-3074 Collaboration of BRCA1 and splicing factor SART1 in DNA double-strand break repair by homologous recombination**

 Motohiro Yamauchi<sup>1</sup>, Atsushi Shibata<sup>2</sup>, Keiji Suzuki<sup>1</sup>, Kiyoshi Miyagawa<sup>3</sup> (<sup>1</sup>A. Bomb Disease Inst., Nagasaki Univ., <sup>2</sup>ERSC, Grad. Sch. Med., Gunma Univ., <sup>3</sup>Grad. Sch. Med., Univ. Tokyo)

DNA二本鎖切断の相同組換え修復における BRCA1 とスプライシング因子 SART1 の協同的働き

 山内 基弘<sup>1</sup>、柴田 淳史<sup>2</sup>、鈴木 啓司<sup>1</sup>、宮川 清<sup>3</sup> (長崎大・原研、<sup>2</sup>群馬大・院医・教育研究セ、<sup>3</sup>東京大・院医・疾患生命工学セ・放射線分子医学)

**E-3075 Replication Stress Arisen by Radiation Leads to Genomic Destabilization and Mutation Induction in the ARF/p53 Module**

 Yusuke Matsuno<sup>1,2</sup>, Ken-ichi Yoshioka<sup>1</sup> (<sup>1</sup>Div. Carcin. Can. Pre., Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Chem., Fac. Sci., Tokyo Univ. of Sci.)

放射線によって生じる複製ストレスはゲノム不安定性と ARF/p53 変異を誘導する

 松野 悠介<sup>1,2</sup>、吉岡 研一<sup>1</sup> (国立がん研セ・研・発がん・予防、<sup>2</sup>東京理科大・院理・化学)

**E-3076 lncRNA TUG1 plays roles in S-phase progression**

Kenta Iijima, Keiko Shinjo, Yutaka Kondo (Div. Cancer Biol., Nagoya Univ. Grad. Sch. of Med.)

lncRNA TUG1 は S 期の進行において機能する

飯島 健太、新城 恵子、近藤 豊 (名古屋大・院医・腫瘍生物学)

**E-3077 Oncogenic mRNA processing factor promotes genome stability through DNA damage repair pathway**

 Hirofumi Inaba<sup>1</sup>, Michihiro Tanikawa<sup>1</sup>, Misako Kusakabe<sup>1</sup>, Sho Mizuno<sup>1</sup>, Harunori Honjo<sup>1</sup>, Yoshiko Kawata<sup>1</sup>, Kenbun Sone<sup>1</sup>, Kazunori Nagasaka<sup>1</sup>, Yoko Matsumoto<sup>3</sup>, Osamu Hiraike<sup>1</sup>, Katsutoshi Oda<sup>1</sup>, Yutaka Osuga<sup>1</sup>, Tomoyuki Fujii<sup>1</sup> (<sup>1</sup>Dept. Obst & Gynec., Tokyo Univ., <sup>2</sup>Dept. Obst & Gynec., Teikyo Univ., <sup>3</sup>Obst & Gynec., Bokuto Hosp.)

Oncogenic な mRNA プロセッシング因子は DNA 損傷修復経路を通じてゲノム安定性を促進する

 稲葉 洋文<sup>1</sup>、谷川 道洋<sup>1</sup>、日下部 美佐子<sup>1</sup>、水野 祥<sup>1</sup>、本城 晴紀<sup>1</sup>、川田 淑子<sup>1</sup>、曾根 献文<sup>1</sup>、長阪 一憲<sup>2</sup>、松本 陽子<sup>3</sup>、平池 修<sup>1</sup>、織田 克利<sup>1</sup>、大須賀 穰<sup>1</sup>、藤井 知行<sup>1</sup> (東京大・医・産婦人科、<sup>2</sup>帝京大・医・産婦人科、<sup>3</sup>墨東病院・産婦人科)

**E-3078 Genomic instability in MSH2-null HeLa cells with DNA polymerase delta R506H mutation introduced by CRISPR/Cas9**

 Shinya Oda<sup>1</sup>, Kyoko Hidaka<sup>2</sup>, Genki Hayashida<sup>3,5</sup>, Ryosuke Fujikane<sup>4</sup>, Masumi Hidaka<sup>4</sup>, Teruhisa Tsuzuki<sup>1</sup>, Yoshimichi Nakatsu<sup>5</sup> (<sup>1</sup>Clin. Res. Inst., Natl. Kyushu Cancer Ctr., <sup>2</sup>Ctr. Fundam. Ed., Kitakyushu Univ., <sup>3</sup>Grad. Sch. Syst. Life. Sci., Kyushu Univ., <sup>4</sup>Dept. Phys. Sci. Mol. Biol., Fukuoka Dent. Coll., <sup>5</sup>Dept. Med. Biophys. Radiat. Biol., Fac. Med., Kyushu Univ.)

CRISPR/Cas9 を用いて DNA ポリメラーゼ δR506H 変異を導入した MSH2 欠損 HeLa 細胞におけるゲノム不安定性

 織田 信弥<sup>1</sup>、日高 京子<sup>2</sup>、林田 元気<sup>3,5</sup>、藤兼 亮輔<sup>4</sup>、日高 真純<sup>4</sup>、續 輝久<sup>5</sup>、中津 可道<sup>5</sup> (九州がんセ・臨床研究セ、<sup>2</sup>北九大・基盤教育セ、<sup>3</sup>九州大・院・システム生命科学、<sup>4</sup>福岡歯科大・細胞分子生物学、<sup>5</sup>九州大・院医・放射線基礎医学)

Room 13 Sep. 28 (Sat.) 14:45-16:00

E

**E6-2 Cell cycle regulation and genome instability**  
 細胞周期制御とゲノム不安定性

Chairperson: Kiyoshi Miyagawa (Grad. Sch. of Med., The Univ. of Tokyo)

座長: 宮川 清 (東京大・院医)

**E-3079 A rigorous regulation of separase ensures faithful chromosome segregation in mitosis**

Norihisa Shindo, Toru Hirota (Div. Exp. Path. Cancer Inst., JFCR)

 厳格なセパレーズ制御機構により保証される正確な染色体分配  
 進藤 軌久、広田 亨 ((公財) がん研・研・実験病理部)

**E-3080 The roles of the meiotic synaptonemal complex protein SYCE3 in cell division in cancer**

Noriko Hosoya, Kiyoshi Miyagawa (Lab. Mol. Radiol., CDBIM, Grad. Sch. Med., Univ. of Tokyo)

シナプトネマ複合体形成分子 SYCE3 のがんの細胞分裂における役割

細谷 紀子、宮川 清 (東京大・院医・疾患生命工学セ・放射線分子医学)

**E-3081 Mathematical modeling of the molecular mechanism that recruits centriole biogenesis regulators to mother centrioles**

 Takanori Nakamura<sup>1</sup>, Noriko Tokai<sup>1</sup>, Takashi Nakazawa<sup>2</sup>, Tatsuki Mori<sup>3</sup>, Takashi Suzuki<sup>2</sup>, Mutsuhiro Takekawa<sup>1</sup> (<sup>1</sup>Div. CSMM, IMS, The Univ. of Tokyo, <sup>2</sup>MMDS Ctr., Osaka Univ., <sup>3</sup>Div. Math-Sci., Grad. Sch. of Engineer. Sci., Osaka Univ.)

数理解析を活用した中心体複製開始を制御する分子機構の解明

 中村 貴紀<sup>1</sup>、渡海 紀子<sup>1</sup>、中澤 高<sup>2</sup>、森 竜樹<sup>3</sup>、鈴木 貴<sup>2</sup>、武川 睦寛<sup>1</sup> (東京大・医科研・分子シグナル制御、<sup>2</sup>大阪大・MMDS セ、<sup>3</sup>大阪大・基礎工学・応用解析)

**E-3082 RUNX3 regulates chromatin dynamics by functioning as a pioneer factor of the restriction-point**

 Suk-Chul Bae<sup>1</sup>, Jung-Won Lee<sup>1</sup>, Da-Mi Kim<sup>1</sup>, Jin-Won Hyun<sup>2</sup>, Yoshiaki Ito<sup>3</sup> (<sup>1</sup>Dept. Biochem., College of Med., Chungbuk Natl. Univ., <sup>2</sup>Dept. Biochem., Sch. of Med., Jeju Natl. Univ., <sup>3</sup>Cancer Sci. Inst. of Singapore, Natl. Univ. of Singapore)

**E-3083 A Novel Curcumin Analog Inhibits Tumorigenesis through Prometaphase Arrest and Antioxidative Interference**

 Jun-ya Kato<sup>1</sup>, Ikuko Nakamae<sup>1</sup>, Takashi Yokoyama<sup>1</sup>, Noriko Kato<sup>1</sup>, Edy Meiyanto<sup>2</sup> (<sup>1</sup>Tumor Cell Biol., Div. Biol. Sci., Nara Inst. Sci. Tech., <sup>2</sup>CCRC, UGM)

**E-3084 Inhibition of cell cycle progression and induction apoptosis in MEG-01 cells exposed to the random positioning machine**

Alisa A. Sokolovskaya, Aleksey A. Moskovtsev, Aslan A. Kubatiev (Inst. of General Path. &amp; Pathophysiology)



English Oral Sessions

Room 14 Sep. 28 (Sat.) 13:30-14:45 E

**E21 Gene therapy and oncolytic virus therapy**  
遺伝子治療・ウイルス療法

Chairperson: Kenzaburo Tani (The Inst. of Med. Sci., The Univ. of Tokyo)  
座長: 谷 憲三朗 (東京大・医科研)

- E-3085 KIT regulator "RUNX1" as a novel therapeutic target in human mast-cell diseases**  
Tatsuya Masuda<sup>1</sup>, Tatsuki R Kataoka<sup>2</sup>, Toshiya Tatsuta<sup>1</sup>, Hidemasa Matsuo<sup>1</sup>, Hiroshi Sugiyama<sup>3</sup>, Souichi Adachi<sup>1</sup>, Yasuhiko Kamikubo<sup>1</sup> (1Dept. Hum. Health Sci., Grad. Sch. Med., Kyoto Univ., 2Dept. Diag Path. Med., Kyoto Hosp., 3Dept. Chem., Grad. Sch. Sci., Kyoto Univ.)  
ヒト肥満細胞疾患における新規治療標的としての RUNX1  
増田 達哉<sup>1</sup>、片岡 竜貴<sup>2</sup>、立田 俊也<sup>1</sup>、松尾 英将<sup>1</sup>、杉山 弘<sup>3</sup>、足立 壮一<sup>1</sup>、上久保 靖彦<sup>1</sup> (1京都大・院医・人間健康科学、2京都大・病院医・診断病理科、3京都大・理・化学)
- E-3086 LncRNA UCA1 is a potential biomarker of response to oncolytic virotherapy as well as chemotherapy for ovarian cancer**  
Takafumi Nakamura (Grad. Sch. of Med. Sci., Tottori Univ.)  
長鎖ノンコーディング RNA である UCA1 は化学療法だけではなくがんウイルス療法の感受性バイオマーカーになり得る  
中村 貴史 (鳥取大・院医)
- E-3087 Activation of Raf/MAPK pathway in cancer cells promotes viral growth of an oncolytic recombinant measles virus**  
Tomoko Fujiyuki, Koichiro Shoji, Hiroki Sato, Misako Yoneda, Chieko Kai (Lab. Animal Res. Cent., IMSUT, The Univ. of Tokyo)  
癌細胞における Raf/MAPK 経路の活性化が腫瘍溶解性組換え麻疹ウイルスの増殖を促進する  
藤幸 知子、庄司 紘一郎、佐藤 宏樹、米田 美佐子、甲斐 知恵子 (東京大・医科研・実験動物研究施設)
- E-3088 Anti-tumor activity of a recombinant measles virus against canine primary lung adenocarcinoma cells**  
Kei Tamura<sup>1,2</sup>, Tomoko Fujiyuki<sup>1</sup>, Kanako Moritoh<sup>1</sup>, Keigo Iizuka<sup>3</sup>, Hiroki Sato<sup>1</sup>, Kazushi Asano<sup>2</sup>, Misako Yoneda<sup>1</sup>, Chieko Kai<sup>1</sup> (1Lab. animal Res. Cent., IMSUT, The Univ. of Tokyo, 2Lab. of veterinary surgery., NUBS, The Univ. of Nihon)  
犬の原発性肺腺癌細胞における腫瘍溶解性組み替え麻疹ウイルスの抗腫瘍効果  
田村 啓<sup>1,2</sup>、藤幸 知子<sup>1</sup>、森藤 可南子<sup>1</sup>、飯塚 恵悟<sup>2</sup>、佐藤 宏樹<sup>1</sup>、浅野 和之<sup>2</sup>、米田 美佐子<sup>1</sup>、甲斐 知恵子<sup>1</sup> (1東京大・医科研・実験動物研究施設、2日本大・生物資源科・獣医外科学研究室)
- E-3089 Downregulation of the lipid synthetic pathway increased oncolytic adenoviral replications in mesothelioma**  
Takao Morinaga<sup>1</sup>, Shuji Kubo<sup>2</sup>, Ikuo Sekine<sup>3</sup>, Yuji Tada<sup>4</sup>, Hideaki Shimada<sup>5</sup> (1Div. Pathol & Cell Ther., Chiba Cancer Ctr. Res. Inst., 2Inst. Advanced Med. Sci., Hyogo College Med., 3Dept. Med. Oncol., Faculty Med., Tsukuba Univ., 4Atami Hosp., Int. Univ. of Health & Welfare, 5Dept. Surg., Sch. Med., Toho Univ.)  
脂質合成経路の抑制は悪性中皮腫における腫瘍融解性アデノウイルス複製を上昇させる  
盛永 敬郎<sup>1</sup>、久保 秀司<sup>2</sup>、関根 郁夫<sup>3</sup>、多田 裕司<sup>4</sup>、島田 英昭<sup>5</sup> (1千葉がんせ・研・細胞治療、2兵庫医大・先端研・医薬開発・分子遺伝、3筑波大・医学医療系・臨床腫瘍、4国際医療福祉大・熱海病院、5東邦大・院医・消化器外科)
- E-3090 Analysis of immune cell response elicited by recombinant measles virus therapy for cancer in immunocompetent tumor model**  
Kanako Moritoh, Koichiro Shoji, Yosuke Amagai, Tomoko Fujiyuki, Hiroki Sato, Misako Yoneda, Chieko Kai (Lab. Animal Res. Cent., IMSUT, The Univ. of Tokyo)  
正常免疫マウス腫瘍モデルを用いた組み換え麻疹ウイルス療法における免疫反応の解析  
森藤 可南子、庄司 紘一郎、雨貝 陽介、藤幸 知子、佐藤 宏樹、米田 美佐子、甲斐 知恵子 (東京大・医科研・実験動物研究施設)

English Oral Sessions

Room 14 Sep. 28 (Sat.) 14:45-16:00 E

**E16-2 Development of novel strategies for cancer therapy**  
新規がん治療戦略の開発

Chairperson: Hiroki Nagase (Chiba Cancer Ctr. Res. Inst., Div. Cancer Genetics)  
座長: 永瀬 浩喜 (千葉県がんせ・研)

- E-3091 Targeted alpha therapy as a novel therapeutic option for HER2 positive liver metastasis of gastric cancer**  
Huizi K. Li, Sumitaka Hasegawa (Radiation & Cancer Biol. Team, NIRS, QST)  
HER2 高発現胃がん肝転移に対する新規標的 α 線内用療法  
李 恵子、長谷川 純崇 (量研・放医研・放射線がん生物チーム)
- E-3092 Mechanism of cancer cell cytotoxicity after near-infrared photoimmunotherapy**  
Kazuhide Sato<sup>1,2,3</sup>, Mikako Ogawa<sup>4</sup>, Ryohei Kokawa<sup>5</sup>, Masayuki Nishimura<sup>2</sup>, Yoshinori Hasegawa<sup>3</sup>, Peter Choyke<sup>2</sup>, Hisataka Kobayashi<sup>2</sup> (1Nagoya Univ., Inst. for Advanced Res., 2Nat. Cancer Inst., 3Nagoya Univ., Sch. of Med., Dept. of Respiratory Med., 4Faculty of Pharm. Sci., Hokkaido Univ., 5Shimadzu Corporation)  
近赤外線免疫療法の機序解明  
佐藤 和秀<sup>1,2,3</sup>、小川 美香子<sup>4</sup>、粉川 良平<sup>5</sup>、西村 雅之<sup>5</sup>、長谷川 好規<sup>2</sup>、ちよいきー ぴーたー<sup>2</sup>、小林 久隆<sup>2</sup> (1名古屋大・高等研究院、2米国立がんせ、3名古屋大・院医・呼吸器内科、4北海道大・院薬、5島津製作所)
- E-3093 Withdrawn**
- E-3094 Identification of a novel series of lamellarin analogues targeting CDK4/6 with potent antitumor selectivity**  
Yoshimi Ohashi<sup>1</sup>, Tsutomu Fukuda<sup>2</sup>, Mutsumi Okamura<sup>1</sup>, Naoyuki Nishiyama<sup>3</sup>, Yuko Uno<sup>4</sup>, Masaaki Sawa<sup>4</sup>, Masatomo Iwao<sup>5</sup>, Shingo Dan<sup>1</sup> (1Div. Mol. Pharmacology, Cancer Chemother. Ctr., JFCR, 2Div. Chemistry & Materials Sci., Grad. Sch. Engineering, Nagasaki Univ., 3Dept. Clin. Pharm., Sch. Pharm., Iwate Med. Univ., 4Carna Biosci., Inc.)  
強い抗がん選択性を持つ CDK4/6 を標的とした新規ラメラリン類縁体の同定  
大橋 愛美<sup>1</sup>、福田 勉<sup>2</sup>、岡村 睦美<sup>1</sup>、西谷 直之<sup>3</sup>、宇野 佑子<sup>4</sup>、澤 匡明<sup>4</sup>、岩尾 正倫<sup>2</sup>、旦 慎吾<sup>1</sup> (1(公財)がん研・化療せ・分子薬理部、2長崎大・工・物質科学・有機生命科学、3岩手医大・薬・臨床薬学・情報薬科学、4カルナバイオサイエンス(株))
- E-3095 Combination of PARP inhibition and site-specific DNA damage in the amplified region of the MYCN gene in neuroblastoma**  
Atsushi Takatori<sup>1</sup>, Hiroki Yoda<sup>1,2</sup>, Takayoshi Watanabe<sup>1</sup>, Yoshinao Shinozaki<sup>2</sup>, Hiroki Nagase<sup>2</sup> (1Div. Innov. Cancer Therap., Chiba Cancer Ctr. Res. Inst., 2Div. Cancer Genetics, Chiba Cancer Ctr. Res. Inst.)  
神経芽腫における PARP 阻害および増幅 MYCN 遺伝子特異的 DNA 傷害による治療戦略  
高取 敦志<sup>1</sup>、養田 裕行<sup>1,2</sup>、渡部 隆義<sup>1</sup>、篠崎 喜博<sup>2</sup>、永瀬 浩喜<sup>2</sup> (1千葉がんせ・研・がん先進、2千葉がんせ・研・がん遺伝)
- E-3096 Targeting aurora kinases reduces neuroblastoma progression by altering the metabolic pathways via enhancing ACADM**  
Chiao-Hui Hsieh<sup>1</sup>, Chantal Hoi Yin Cheung<sup>1</sup>, Yen-Lin Liu<sup>2</sup>, Chun-Li Hou<sup>1</sup>, Chia-Lang Hsu<sup>3</sup>, Chen-Tsung Huang<sup>4</sup>, Tsai-Shan Yang<sup>5</sup>, Sung-Fang Chen<sup>6</sup>, Chiung-Nien Chen<sup>5</sup>, Wen-Ming Hsu<sup>5</sup>, Hsuan-Cheng Huang<sup>7</sup>, Hsueh-Fen Juan<sup>1,4</sup> (1Inst. Mol. & Cell. Biol., Dept. Life Sci., NTU, Taiwan, 2Dept. Pediatrics, TMUH, Taipei, Taiwan, 3Dept. Med. Res., NTUH, Taipei, Taiwan, 4Grad. Inst. of Biomed. Electronics & Bioinformatics, NTU, Taiwan, 5Dept. Surg., NTUH, Taipei, Taiwan, 6Dept. Chemistry, NTNU, Taipei, Taiwan, 7Inst of Biomed. Informatics, NYMU, Taipei, Taiwan)

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**E17-4 Mechanism of action and resistance of anticancer drugs**  
抗がん薬の作用機序と耐性

Chairperson: Susumu S. Kobayashi (Div. Transl. Genomics, Exploratory Oncol. Res. &amp; Clin. Trial Ctr., Natl. Cancer Ctr.)

座長: 小林 進 (国立がん研セ・先端医療開発セ・ゲノムトランスレーショナルリサーチ分野)

**E-3097 Establishment of patient-derived cancer cell lines to elucidate the resistant mechanism of tyrosine kinase inhibitors**  
Tadashi Manabe<sup>1</sup>, Hiroyuki Yasuda<sup>1</sup>, Keigo Kobayashi<sup>1</sup>, Keita Masuzawa<sup>1</sup>, Junko Hamamoto<sup>1</sup>, Hideki Terai<sup>2</sup>, Ichiro Kawada<sup>1</sup>, Kenzo Soejima<sup>1</sup> (<sup>1</sup>Dept. Int. Med., Div. Pulmonary Med., Keio Univ., Sch. Med., <sup>2</sup>Div. Pulmonary Med., Kitasato Univ. Kitasato Inst. Hosp.)  
患者由来肺癌細胞株の樹立とチロシンキナーゼ阻害薬耐性化機序の解明  
眞鍋 維志<sup>1</sup>、安田 浩之<sup>1</sup>、小林 慧悟<sup>1</sup>、増澤 啓太<sup>1</sup>、浜本 純子<sup>1</sup>、寺井 秀樹<sup>2</sup>、川田 一郎<sup>1</sup>、副島 研造<sup>1</sup> (慶應大・医・呼吸器内科、<sup>2</sup>北里研・病院・呼吸器内科)

**E-3098 Schlafen 11 (SLFN11), an emerging focus for DNA-targeted anti-cancer therapy**  
Junko Murai (Inst. for Advanced Biosci., Keio Univ.)  
DNA 障害型抗がん剤の革新的効果予測バイオマーカー SLFN11  
村井 純子 (慶應大・先端生命科学)

**E-3099 Formycin A selectively induced apoptosis in castration-resistant prostate cancer**  
Masaya Imoto<sup>1</sup>, Hiroshi Hongo<sup>2</sup>, Takeo Kosaka<sup>2</sup>, Mototsugu Oya<sup>2</sup> (<sup>1</sup>Fac. Sci. Tech., Keio Univ., <sup>2</sup>Dept. Urology, Keio Univ. Sch. of Med.)  
フォルマイシン A は去勢抵抗性前立腺癌に選択的にアポトーシスを誘導する  
井本 正哉<sup>1</sup>、本郷 周<sup>2</sup>、小坂 威雄<sup>2</sup>、大家 基嗣<sup>2</sup> (慶應大・理工、<sup>2</sup>慶應大・医・泌尿器)

**E-3100 Potent antiproliferative effect of fatty-acid derivative on BCR-ABL-mutated leukemia**  
Haruka Shinohara<sup>1,2</sup>, Yosuke Minami<sup>3</sup>, Tomoki Naoe<sup>4</sup>, Issay Kitabayashi<sup>1</sup>, Yukihiko Akao<sup>2</sup> (<sup>1</sup>Div. Hematological Malignancy, Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Drug. Med. Info., Grad. Sch., Gifu Univ., <sup>3</sup>Dept. Hematology, Natl. Cancer Ctr. Hosp. East, <sup>4</sup>Natl. Hosp. Org., Nagoya Med. Ctr.)  
変異型 BCR-ABL を有する慢性骨髄性白血病に対する中鎖脂肪酸誘導体の抗がん作用  
篠原 悠<sup>1,2</sup>、南 陽介<sup>3</sup>、直江 知樹<sup>4</sup>、北林 一生<sup>1</sup>、赤尾 幸博<sup>1</sup> (国立がん研セ・造血器腫瘍研究分野、<sup>2</sup>岐阜大・院・連合創薬、<sup>3</sup>国立がん研セ・東病院・血液腫瘍、<sup>4</sup>国立病院機構名古屋医療セ)

**E-3101 To identify the molecular mechanisms of drug resistance induced by gastric cancer associated fibroblasts**  
Tomoyuki Uchihara<sup>1,2</sup>, Atsuko Yonemura<sup>1,2</sup>, Keisuke Miyake<sup>1,2</sup>, Tadahito Yasuda<sup>1,2</sup>, Takahiko Akiyama<sup>1,2</sup>, Fumimasa Kitamura<sup>1,2</sup>, Rumi Itoyama<sup>1,2</sup>, Masaaki Iwatsuki<sup>1</sup>, Shiro Iwagami<sup>1</sup>, Naoya Yoshida<sup>1</sup>, Hideo Baba<sup>1</sup>, Takatsugu Ishimoto<sup>1,2</sup> (<sup>1</sup>Dept. Gastroenterological Surg. Kumamoto Univ., <sup>2</sup>International Res. Ctr. for Med. Sci.)  
胃癌 Cancer associated fibroblasts による薬剤抵抗性獲得メカニズムの解明  
内原 智幸<sup>1,2</sup>、米村 敦子<sup>1,2</sup>、三宅 慧輔<sup>1,2</sup>、安田 忠仁<sup>1,2</sup>、秋山 貴彦<sup>1,2</sup>、北村 文優<sup>1,2</sup>、伊東山 瑠美<sup>1,2</sup>、岩槻 政晃<sup>1</sup>、岩上 志朗<sup>1</sup>、吉田 直矢<sup>1</sup>、馬場 秀夫<sup>1</sup>、石本 崇胤<sup>1,2</sup> (熊本大・消化器外科学、<sup>2</sup>熊本大・国際先端医学研究拠点)

**E-3102 Inhibition of the redox system shows preferential cytotoxicity to human cancer cells under nutrient-deprived conditions**  
Takefumi Onodera, Isao Momose, Yohko Yamazaki, Hayamitsu Adachi, Manabu Kawada (Inst. Microb. Chem. Numazu)  
レドックス制御システムの阻害は栄養欠乏環境のがん細胞に選択的な細胞毒性を示す  
小野寺 威文、百瀬 功、山崎 洋子、安達 勇光、川田 学 (微化研・沼津)

Room 15 Sep. 28 (Sat.) 14:45-16:00

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**J18 Drug sensitivity / drug resistance-relating factors / gene expression analysis**  
薬剤感受性・耐性因子・遺伝子発現解析

Chairperson: Naoyuki Nishiya (Iwate Med. Univ. Sch. of Pharm., Dept. Clin. Pharm., Div. Integrated Information of Pharm. Sci.)

座長: 西谷 直之 (岩手医大・薬・臨床薬学講座・情報薬学分野)

**J-3031 Whole genome sequencing to identify predictive markers for the risk of drug-induced interstitial lung disease**  
Chihiro Udagawa<sup>1,6</sup>, Hidehito Horinouchi<sup>2</sup>, Kouya Shiraishi<sup>3</sup>, Takashi Kohno<sup>2</sup>, Takuji Okusaka<sup>4</sup>, Hideki Ueno<sup>5</sup>, Kenji Tamura<sup>3</sup>, Yuichiro Ohe<sup>2</sup>, Hitoshi Zembutsu<sup>1,6</sup> (<sup>1</sup>Div. Genetics, Natl. Cancer Ctr. Res. Inst., <sup>2</sup>Dept. Thoracic Oncology, Natl. Cancer Ctr. Hosp., <sup>3</sup>Div. Genome Biol., Natl. Cancer Ctr. Res. Inst., <sup>4</sup>Dept. Hepatobiliary & Pancreatic Oncology, Natl. Cancer Ctr. Hosp., <sup>5</sup>Dept. Breast & Med. Oncology, Natl. Cancer Ctr. Hosp., <sup>6</sup>Cancer Precision Med. Ctr. JFCR)

**全ゲノム解析による薬剤性間質性肺炎予測マーカーの同定**

宇田川 智野<sup>1,6</sup>、堀之内 秀仁<sup>2</sup>、白石 航也<sup>3</sup>、河野 隆志<sup>3</sup>、奥坂 拓志<sup>4</sup>、上野 秀樹<sup>4</sup>、田村 研治<sup>5</sup>、大江 裕一郎<sup>2</sup>、前佛 均<sup>1,6</sup> (国立がん研セ・研・遺伝医学、<sup>2</sup>国立がん研セ・中央病院・呼吸器内科、<sup>3</sup>国立がん研セ・研・ゲノム生物学、<sup>4</sup>国立がん研セ・中央病院・肝胆膵内科、<sup>5</sup>国立がん研セ・中央病院・乳腺腫瘍内科、<sup>6</sup>(公財)がん研・CPMセ・リキッドバイオプシー)

**J-3032 Identification of biomarkers for anti-microtubule agents**  
Hiroshi Ariyama<sup>1</sup>, Kyoko Yamaguchi<sup>1</sup>, Tomoyasu Yoshihiro<sup>1</sup>, Kohei Arimizu<sup>1</sup>, Koichi Akashi<sup>1</sup>, Eishi Baba<sup>2</sup> (<sup>1</sup>Dept. Med. & Biosystemic Sci., Kyushu Univ. Faculty of Med., <sup>2</sup>Dept. Oncology & Social Med., Grad. Sch. Med. Sci., Kyushu Univ.)  
微小管阻害薬におけるバイオマーカーの同定  
有山 寛<sup>1</sup>、山口 享子<sup>1</sup>、吉弘 知恭<sup>1</sup>、有水 耕平<sup>1</sup>、赤司 浩一<sup>1</sup>、馬場 英司<sup>2</sup> (九州大・院医・病態修復内科学、<sup>2</sup>九州大・院医・社会環境医学講座)

**J-3033 PD-1<sup>high</sup> peripheral CD8<sup>+</sup> T cells are associated with responsiveness to the PD-1 blockade therapy in NSCLC patients**  
Ryusuke Hatae<sup>1</sup>, Kenji Chamoto<sup>1</sup>, Young Hak Kim<sup>2</sup>, Tasuku Honjo<sup>1</sup> (<sup>1</sup>Dept. Immunol. & Genomic Med., Kyoto Univ., <sup>2</sup>Dept. Resp. Med., Kyoto Univ.)  
NSCLC 患者の末梢血中 PD-1<sup>high</sup> CD8<sup>+</sup> T 細胞は PD-1 抗体の治療効果と関係する  
波多江 龍亮<sup>1</sup>、茶本 健司<sup>1</sup>、金 永学<sup>2</sup>、本庶 佑<sup>1</sup> (京都大・医・免疫ゲノム医学、<sup>2</sup>京都大・医・呼吸器)

**J-3034 A novel HR activity assay ASHRA is useful to predict the sensitivity to PARP inhibitor**  
Shino Endo, Yuki Yoshino, Natsuko Chiba (Dept. Cancer Biol., IDAC, Tohoku Univ.)  
新規 HR 活性測定法 ASHRA は PARP 阻害薬感受性を予測可能である  
遠藤 菜乃、吉野 優樹、千葉 奈津子 (東北大・加齢研・腫瘍生物)

**J-3035 A real-time PCR-based approach to quantitatively assess tumor immune profiles and immune responses**  
Masahiro Nozawa<sup>1</sup>, Marco A. De Velasco<sup>1,2</sup>, Yurie Kura<sup>1</sup>, Kazuko Sakai<sup>2</sup>, Kazuhiro Yoshikawa<sup>3</sup>, Kazuto Nishio<sup>3</sup>, Hirotsugu 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., <sup>3</sup>Aichi Med. Univ.)  
リアルタイム PCR を用いた腫瘍免疫プロファイルと免疫反応性の評価について  
野澤 昌弘<sup>1</sup>、デベラスコ マルコ<sup>1,2</sup>、倉 由史恵<sup>1</sup>、坂井 和子<sup>2</sup>、吉川 和宏<sup>3</sup>、西尾 和人<sup>2</sup>、植村 天受<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、<sup>3</sup>愛知医大)

**J-3036 JMJD2A (KDM4A) sensitizes metastatic gastric cancer to chemotherapy by cooperating CCDC8**  
Tadahiko Nakagawa<sup>1</sup>, Toshihito Tanahashi<sup>2</sup>, Yoshihiko Miyamoto<sup>3</sup>, Jun Okazaki<sup>2</sup>, Masanori Takehara<sup>2</sup>, Noriaki Murayama<sup>2</sup>, Jinsei Miyoshi<sup>2</sup>, Tatsuya Taniguchi<sup>2</sup>, Yoshimi Bando<sup>3</sup>, Koichi Okamoto<sup>2</sup>, Yasushi Sato<sup>2</sup>, Naoki Muguruma<sup>2</sup>, Tetsuji Takayama<sup>2</sup> (<sup>1</sup>Dept. Health & Nutrition, The Univ. of Shimane, <sup>2</sup>Dept. Gastroenterology & Oncology, Tokushima Univ., <sup>3</sup>Dept. Pathol., Tokushima Univ. Hosp.)  
JMJD2A (KDM4A) は切除不能進行胃癌において CCDC8 を介して抗癌剤感受性を制御する  
中川 忠彦<sup>1</sup>、棚橋 俊仁<sup>2</sup>、宮本 佳彦<sup>2</sup>、岡崎 潤<sup>2</sup>、武原 正典<sup>2</sup>、村山 典聡<sup>2</sup>、三好 人正<sup>2</sup>、谷口 達哉<sup>2</sup>、坂東 良美<sup>3</sup>、岡本 耕一<sup>2</sup>、佐藤 康史<sup>2</sup>、六車 直樹<sup>2</sup>、高山 哲治<sup>2</sup> (島根県立大・健康栄養学科、<sup>2</sup>徳島大・院・消化器内科学、<sup>3</sup>徳島大・病院・病理部)



## English Oral Sessions

Room 16 Sep. 28 (Sat.) 13:30-14:45

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E8

## Cell death, telomere and senescence

細胞死、テロメア・老化

Chairperson: Mahito Sadaie (Dept. Applied Biological Sci. Faculty of Sci. &amp; Tech. Tokyo Univ. of Sci.)

座長: 定家 真人 (東京理科大・理工・応用生物科学科)

## E-3103 Senescence-associated non-coding RNA promotes chromosomal instability in the cancer microenvironment

Akiko Takahashi<sup>1,2</sup>, Ryo Okada<sup>1</sup>, Loo Tze Mun<sup>1</sup>, Kenichi Miyata<sup>1</sup> (<sup>1</sup>Cell. Senescence, Cancer Inst., JFCR, <sup>2</sup>PRESTO, JST)

細胞老化特異的な non-coding RNA が腫瘍微小環境における染色体不安定性を誘導する

高橋 暁子<sup>1,2</sup>, 岡田 遼<sup>1</sup>, 羅 智文<sup>1</sup>, 宮田 憲一<sup>1</sup> (<sup>1</sup>(公財)がん研・研・細胞老化, <sup>2</sup>JST・さきがけ)

## E-3104 CDK1 dependent phosphorylation of hTERT contributes to cancer progression

Kenkichi Masutomi (Div. Cancer Stem Cell, Natl. Cancer Ctr. Res. Inst.)

CDK1 による hTERT のリン酸化と発がん

増富 健吉 (国立がん研セ・研・がん幹細胞研究分野)

## E-3105 Renal cancer cells acquire additional anti-apoptotic ability through the interactions with renal microenvironment

Kosuke Miyakuni<sup>1</sup>, Jun Nishida<sup>1</sup>, Shogo Ehata<sup>1,2,3</sup>, Kohei Miyazono<sup>1</sup> (<sup>1</sup>Dept., Mol. Path., Grad. Sch. Med., Univ. Tokyo, <sup>2</sup>Dept. Med. Genomics, Grad. Sch. Med., Univ. Tokyo, <sup>3</sup>Environ. Sci. Ctr., Univ. Tokyo)

腎がんは腎微小環境との相互作用を介してアポトーシス耐性を獲得する

宮國 昂介<sup>1</sup>, 西田 純<sup>1</sup>, 江幡 正悟<sup>1,2,3</sup>, 宮園 浩平<sup>1</sup> (<sup>1</sup>東京大・院医・分子病理, <sup>2</sup>東京大・院医・ゲノム医学, <sup>3</sup>東京大・環境安全研究セ)

## E-3106 The pathological role of BCR-ABL-induced senescence in chronic myeloid leukemia

Yamato Tanabe, Tomohisa Baba, Naofumi Mukaida (Div. Mol. Bioregulation, Cancer Res. Inst., Kanazawa Univ.)

慢性骨髄性白血病における BCR-ABL 遺伝子誘導性細胞老化は白血病由来巨核球からの SASP を介して白血病幹細胞性を増悪化する  
田辺 和、馬場 智久、向田 直史 (金沢大・がん進展制御研・分子生体応答)

## E-3107 Carbonic anhydrase 9 maintains iron-metabolism and redox homeostasis in human malignant mesothelioma cells

Zan Li, Li Jiang, Shinya Toyokuni (1st Dept. Patho. Nagoya. Univ. Sch. Med.)

李 贊、蔣 麗、豊国 伸哉 (名古屋大・医・第一病理)

## E-3108 Reversine induces cell death in cholangiocarcinoma cell lines

Kanlayance Sawanyawisuth<sup>1,2</sup>, Piya Prajumwongs<sup>1,2</sup>, Kulthida Vaeteewoottacharn<sup>1,2</sup>, Sopit Wongkham<sup>1,2</sup> (<sup>1</sup>Dept. Biochem., Faculty of Med., Khon Kaen Univ., <sup>2</sup>Cholangiocarcinoma Res. Inst.)

## English Oral Sessions

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## DNA damage response and mutagenesis

DNA 損傷応答と変異

Chairperson: Hiroyuki Sasanuma (Dept. Radiation Genetics, Grad. Sch. of Med., Kyoto Univ.)

座長: 笹沼 博之 (京都市大・院医・放射線遺伝)

## E-3109 deubiquitylase USP10 controls DNA damage response

Koh-ichi Utani<sup>1</sup>, Ryo Sakasai<sup>2</sup>, Kuniyoshi Iwabuchi<sup>2</sup>, Masaya Higuchi<sup>1</sup> (<sup>1</sup>Microbio., Kanazawa Med. Univ., Sch. Med., <sup>2</sup>Biochem., Kanazawa Med. Univ., Sch. Med.)

脱ユビキチン化酵素 USP10 による DNA 損傷応答制御

宇谷 公一<sup>1</sup>、逆井 良<sup>2</sup>、岩淵 邦芳<sup>2</sup>、樋口 雅也<sup>1</sup> (<sup>1</sup>金沢医大・医・微生物, <sup>2</sup>金沢医大・医・生化学)

## E-3110 The combination therapy Talaporfin photo dynamictherapy (PDT) and PARP inhibitor for gastric cancer

Mamoru Tanaka, Taketo Suzuki, Hirota Nishie, Hiromi Kataoka (Dept. Gastroenterology &amp; Metabolism, Nagoya City Univ.)

胃癌に対するタラポルフィン PDT と PARP 阻害剤の併用療法の効果について

田中 守、鈴木 健人、西江 裕忠、片岡 洋望 (名古屋市大・医・消化器・代謝内科学)

## E-3111 Effects of leading and lagging strand syntheses on mutations induced by abasic site analog

Hiroyuki Kamiya, Tetsuya Suzuki (Grad. Sch. Biomed. Hlth. Sci., Hiroshima Univ.)

DNA 複製リーディング鎖およびラギング鎖の脱塩基部位誘発変異への影響

紙谷 浩之、鈴木 哲矢 (広島大・院・医系科学 (薬))

## E-3112 Hepatocarcinogenicity induced by prenatal exposure to diphenylarsinic acid in CD1 mice

Min Gi<sup>1,2</sup>, Masaki Fujioka<sup>1</sup>, Yuji Oishi<sup>1</sup>, Syugo Suzuki<sup>1</sup>, Anna Kakehashi<sup>1</sup>, Takashi Yamaguchi<sup>1</sup>, Hideki Wanibuchi<sup>1</sup> (<sup>1</sup>Dept. Mole. Pathol., Osaka City Univ. Grad. Sch. Med., <sup>2</sup>Dept. Environ. Risk Asse., Osaka City Univ. Grad. Sch. Med.)

ジフェニルアルシン酸の胎仔期ばく露におけるマウス肝発がん性の検討

魏 民<sup>1,2</sup>、藤岡 正喜<sup>1</sup>、大石 裕司<sup>1</sup>、鈴木 周五<sup>1</sup>、梯 アンナ<sup>1</sup>、山口 貴嗣<sup>1</sup>、鏑 英機<sup>1</sup> (<sup>1</sup>大阪市大・院医・分子病理学, <sup>2</sup>大阪市大・院医・環境リスク評価学)

## E-3113 DNA damage response activated by interferon-induced APOBEC3 proteins in cancer cells

Hong-Ge Wang, Zhi-Hua Zou (Sch. of Life science, Jilin Univ.)

## E-3114 Mechanism of telomere deprotection during prolonged mitotic arrest

Diana Romero Zamora<sup>1</sup>, Fuyuki Ishikawa<sup>1</sup>, Makoto Hayashi<sup>1,2</sup> (<sup>1</sup>Grad. Sch. of Biostudies, Kyoto Univ., <sup>2</sup>The Hakubi Ctr. for Advanced Res., Kyoto Univ.)

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