

## The Young Scientist Award Lecture

Room 15 Sep. 29 (Sat.) 14:10-16:40



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YSA

### The Young Scientist Award Lecture ヤングサイエンティストアワード受賞講演

Chairperson: Yasufumi Kaneda (Gene Ther. Sci., Gr. Sch. Med., Osaka Univ.)  
座長: 金田 安史 (大阪大・医院・遺伝子治療)

**YSA-1** **Lack of IL-6 in tumor microenvironment augments type-1 anti-tumor immune responses**  
Yosuke Ohno<sup>1</sup>, Hidemitsu Kitamura<sup>2</sup>, Yujiro Toyoshima<sup>1,2</sup>, Huihui Xiang<sup>1,2</sup>, Kentaro Sumida<sup>2</sup>, Shun Kaneumi<sup>1</sup>, Shigenori Homma<sup>1</sup>, Hideki Kawamura<sup>1</sup>, Norihiko Takahashi<sup>1</sup>, Akinobu Taketomi<sup>1</sup> (<sup>1</sup>Dept. Gastroenterological Surg. I., Hokkaido Univ., Sch. Med., <sup>2</sup>Div. Functional Immunol., Inst. Genetic Med., Hokkaido Univ.)  
**IL-6 を標的とした Th1 型抗腫瘍免疫応答の導入による新規がん免疫治療の可能性**  
大野 陽介<sup>1</sup>、北村 秀光<sup>2</sup>、豊島 雄二郎<sup>1,2</sup>、Huihui Xiang<sup>1,2</sup>、角田 健太郎<sup>2</sup>、金海 俊<sup>2</sup>、本間 重紀<sup>1</sup>、川村 秀樹<sup>1</sup>、高橋 典彦<sup>1</sup>、武富 紹信<sup>1</sup> (<sup>1</sup>北海道大・医・消化器外科 1、<sup>2</sup>北海道大・遺伝研・免疫機能学分野)

**YSA-2** **Intratumoral bidirectional transitions between epithelial and mesenchymal cells in triple-negative breast cancer**  
Mizuki Yamamoto, Jun-ichiro Inoue (Div. Cell. & Mol. Biol., IMSUT)

トリプルネガティブ乳癌における EMT/MET 相互転換機構の解析  
山本 瑞生、井上 純一郎 (東京大・医科研・分子発癌分野)

**YSA-3** **Effects of SMYD2-mediated EML4-ALK methylation on the signaling pathway and growth in non-small-cell lung cancer cells**  
Rui Wang<sup>1,2</sup>, Xiaolan Deng<sup>1</sup>, Yuichiro Yoshioka<sup>1</sup>, Theodore Vougiouklakis<sup>1</sup>, Jae-Hyun Park<sup>1</sup>, Takehiro Suzuki<sup>3</sup>, Naoshi Dohmae<sup>1</sup>, Koji Ueda<sup>4</sup>, Ryuji Hamamoto<sup>4,5</sup>, Yusuke Nakamura<sup>1</sup> (<sup>1</sup>Section of Hematology/Oncol., Dept. Med., UChicago, <sup>2</sup>CBSKL & Xijing Hosp. of Digestive Diseases, FMMU, <sup>3</sup>BioMol. Characterization Unit, RIKEN Ctr. for Sustainable Resource Sci., <sup>4</sup>Cancer Proteomics Group, Cancer Precision Med. Ctr., JFCR, <sup>5</sup>Div. Mol. Modification & Cancer Biol., NCCRI)

**YSA-4** **p62 as an oncotarget mediates cisplatin resistance through RIP1-NF-KappaB pathway in human ovarian cancer cells**  
Xiao-Yu Yan, Yu Zhang, Juan-Juan Zhang, Li-Chao Zhang, Ya-Nan Liu, Yao Wu, Ya-Nan Xue, Sheng-Yao Lu, Jing Su, Lian-Kun Sun (Dept. Pathophysiol., College of Basic Med. Sci., Jilin Univ.)

## Symposia on Specific Tumors

Room 16 Sep. 29 (Sat.) 13:40-16:10

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SST6

### Advances in treatments for lung cancer 肺がん治療の進歩

Chairpersons: Tetsuya Mitsudomi (Thorac. Surg., Kindai Univ. Fac. Med.)  
Yuichi Ishikawa (Pathol. Div., JFCR Cancer Inst.)

座長: 光富 徹哉 (近畿大・医・呼吸器外科)  
石川 雄一 ((公財)がん研・研・病理)

The recent progress of drug therapy for lung cancer has been remarkable. As for molecular targeted therapy against lung cancers harboring driver gene mutations, approval of gefitinib in Japan in 2002, and discovery of EGFR gene mutation as a predictive biomarker in 2004 marked the start for this type of therapy. Following this, targeted therapies against lung cancer with mutations in the ALK, ROS1, or BRAF gene were shown to provide similar significant clinical response, and has become standard of care. In the near future, it is expected that targeted therapies against lung cancer with rarer mutations (HER2, MET, NTRK, and RET, etc.) will be available. Dr. Kohno will summarize current status molecular genomic research of lung cancer and Dr. Okamoto will talk on current targeted therapies of lung cancer from the clinical point of view. Dr. Goto will mainly touch on novel molecular targets through his experience in the SCRUM-Japan project. Dr. Kobayashi will discuss the recent knowledge on acquired resistance against these targeted therapies which is inevitable. Nivolumab, the first immune-checkpoint inhibitor for lung cancer, was approved in Japan in 2015. Subsequently, pembrolizumab, atezolizumab, and durvalumab have been also approved to date. First, these agents became standard of care for the second-line treatment of lung cancer and then pembrolizumab became a standard of care for the first-line treatment of lung cancer with high PD-L1 expression. Furthermore, positive clinical trials of immune-checkpoint inhibitors in combination with chemotherapy or anti-angiogenic agent, and maintenance immunotherapy after chemoradiation for locally-advanced lung cancer have recently been reported. Dr. Hayashi will summarize recent clinical trials and future direction. However, patients who benefit from these therapies are still limited and thus biomarker study that identify these patients is important. This point will be touched on by Dr. Togashi. Finally, Dr. Ohe will give special remarks on drug therapy in general from his abundant clinical experience.

**SST6-1** **Genome profile and mutational signature of lung cancer**  
Takashi Kohno<sup>1,2</sup> (<sup>1</sup>Div. Genome Biol., Natl. Cancer Ctr. Res Inst., <sup>2</sup>Div. Translational Genomics, EPOC, Natl. Cancer Ctr.)

治療と発がん機構理解のための肺がんゲノム解析  
河野 隆志<sup>1,2</sup> (<sup>1</sup>国立がん研究セ・研・ゲノム生物、<sup>2</sup>国立がん研究セ・EPOC・ゲノムTR)

**SST6-2** **Molecularly targeted therapies for oncogene-driven advanced non-small-cell lung cancer**

Isamu Okamoto (Res. Inst. for Diseases of the Chest, Kyushu Univ.)  
ドライバー遺伝子異常陽性進行非小細胞肺癌に対する分子標的治療  
岡本 勇 (九州大・医・呼吸器科)

**SST6-3** **Development of Nationwide Genomic Screening Platform (LC-SCRUM-Japan) to Establish Precision Medicine in Lung Cancer**  
Koichi Goto (Dept. Thoracic Oncology, Natl. Cancer Ctr. Hosp. East)

肺癌における個別化医療の確立を目指した遺伝子スクリーニングネットワークの確立と治療開発  
後藤 功一 (国立がん研究セ・東病院・呼吸器内科)

**SST6-4** **Mechanisms and strategies to overcome resistance to tyrosine kinase inhibitors in lung cancer**  
Susumu Kobayashi<sup>1,2</sup> (<sup>1</sup>Div. Translational Genomics, EPOC, NCC, <sup>2</sup>Div. Hem-Onc, Beth Israel Deaconess Med. Ctr.)

TKI の獲得耐性とその克服  
小林 進<sup>1,2</sup> (<sup>1</sup>国立がん研究セ・先端医療開発セ、<sup>2</sup>ベイスイスラエル・デコネス・メディカル・セ)

**SST6-5** **Future directions in immune-checkpoint inhibitors in NSCLC**  
Hidetoshi Hayashi (Dept. Med. Oncol., Kindai Univ.)

肺癌における免疫チェックポイント阻害薬の治療戦略と展望  
林 秀敏 (近畿大・医・内科学腫瘍内科)

**SST6-6** **Translational Research for Predictive Biomarkers in Cancer Immunotherapy**

Yosuke Togashi (Div. Cancer Immunol., Natl. Cancer Ctr.)  
がん免疫治療のバイオマーカー研究  
富樫 庸介 (国立がん研究セ・免疫 TR 分野)

#### Special Remarks

Yuichiro Ohe (Dept. Thoracic Oncol., Natl. Cancer Ctr. Hosp.)

#### 特別発言

大江 裕一郎 (国立がん研究セ・中央病院)

Room  
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