Sympois on Specific Tumors

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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. ROSI, 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. Koyabashi will discuss the recent knowledge on acquired resistance against these targeted therapies which is inevitable.

Iluvotum, the first immune-checkpoint inhibitor for lung cancer, was approved in Japan in 2015. Subsequently, pembrolizumab, atezolizumab, and durvalumab have also been 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 antiangiogenic agent, and maintenance immunotherapy after chemoradiation for locally-advanced lung cancer have recently been reported. Dr. Hayashi will summarize these 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

治験とがん患者理解のための解析とゲノム解析
羽野 隆之 (国立がん研究センター, 研・ゲノム研究・国立がん研究センター, EPOC, トガモ T)

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.)

ドライバー突変陽性進行非小細胞肺癌に対する分子標的治療
羽野 隆之 (国立がん研究センター, 研・ゲノム研究・国立がん研究センター)

SST6-3 Development of Nationwide Genome Screening Platform (LC-SCRUM-Japan) to Establish Precision Medicine in Lung Cancer

腫瘍における個別化医療の構築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
藤野 功一 (国立がん研究センター, 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 et al. (Div. Translational Genomics, EPOC, NCC, Div. Hem-Onc, Beth Israel Deaconess Med. Ctr.)

TKIの耐性獲得とその克服
小林 進 (国立がん研究センター, 先端医療開発, ベイサイドラボ, デノス・メディカル, トガモ T)

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

肺がん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
羽野 隆之 (国立がん研究センター, 研・ゲノム研究・国立がん研究センター)

SST6-6 Translational Research for Predictive Biomarkers in Cancer Immunotherapy

がん免疫治療のバイオマーカー研究
藤野 隆之 (国立がん研究センター, 研・ゲノム研究・国立がん研究センター, EPOC, トガモ T)

Special Remarks
Yusuke Ohe (Div. Thoracic Oncol., Natl. Cancer Ctr. Hosp.)

特別演題
大塚 健也 (国立がん研究センター, 中部病院)