Biopsy Specimen found to be Reliable for Evaluating DLL3 Expression in Small Cell Lung Cancer

Yokohama, Japan – October 17, 2017 – Small cell lung cancer (SCLC) biopsy specimen was found to be reliable material for evaluating DLL3 expression; high levels of DLL3 in SCLC are correlated with poor survival trends. Dr. Li-Xu Yan of Guangdong General Hospital and Guangdong Academy of Medical Sciences in China presented her findings from this study today at the International Association for the Study of Lung Cancer (IASLC) 18th World Conference on Lung Cancer (WCLC) in Yokohama, Japan.

Rovalpituzumab tesirine is a promising DLL3-targeted antibody-drug conjugate for the treatment of high-grade pulmonary neuroendocrine carcinomas (HGNEC). Biopsies are used often in clinical practice to determine HGNEC diagnoses before treatment. Dr. Yan and her team set out to determine the reliability of the scoring system used to assess the correlation between paired biopsy and surgical specimens and HGNEC features and prognoses. They viewed this information as crucial to understanding whether DLL3 expression on small specimens could represent its expression level on the whole tumor.

Between 2006 and 2015, the researchers recruited patients with de novo HGNECs, including 43 large cell neuroendocrine carcinoma (LCNEC) and 335 SCLC patients. One group, containing all of the LCNEC patients and some of the SCLC patients, had paired biopsy and surgical specimens collected. The other group, containing the remainder of the SCLC patients, had only biopsy specimens collected. Using the anti-DLL3 antibody, the researchers evaluated and determined individuals’ DLL3 expression levels using immunohistochemical H score (HS).

The results of the study provided evidence that biopsy specimen is a reliable material for evaluating DLL3 expression. Additionally, the researchers found that high DLL3 levels in SCLCs were correlated with patients’ history of smoking, TTF-1 (neuroendocrine differentiation) and poor survival trends. These results may lead to further evaluation of the scoring system for predicting DLL3-targeted therapeutic efficacy and clinical significance of DLL3 expression in HGNECs.

“Accurate diagnosis is the premise of accurate treatment,” said Dr. Yan. “To study the heterogeneity of molecular biomarkers is conducive to better guiding targeted treatments.”
About the WCLC
The World Conference on Lung Cancer (WCLC) is the world’s largest meeting dedicated to lung cancer and other thoracic malignancies, attracting over 6,000 researchers, physicians and specialists from more than 100 countries. The goal is to disseminate the latest scientific achievements; increase awareness, collaboration and understanding of lung cancer; and to help participants implement the latest developments across the globe. Organized under the theme of “Synergy to Conquer Lung Cancer,” the conference will cover a wide range of disciplines and unveil several research studies and clinical trial results. For more information, visit http://wclc2017.iaslc.org/.

About the IASLC
The International Association for the Study of Lung Cancer (IASLC) is the only global organization dedicated to the study of lung cancer and other thoracic malignancies. Founded in 1974, the association’s membership includes more than 6,500 lung cancer specialists across all disciplines in over 100 countries, forming a global network working together to conquer lung and thoracic cancers worldwide. The association also publishes the Journal of Thoracic Oncology, the primary educational and informational publication for topics relevant to the prevention, detection, diagnosis and treatment of all thoracic malignancies. Visit www.iaslc.org for more information.

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