



Contact: Kristal Griffith
IASLC Director of Communications
Kristal.Griffith@ucdenver.edu
(303) 724-5796
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The link between TB and a gene mutation that causes lung cancer Latest research in IASLC's *Journal of Thoracic Oncology*

DENVER – Tuberculosis (TB) has been suspected to increase a person's risk of lung cancer because the pulmonary inflammation and fibrosis can induce genetic damage. However, direct evidence of specific genetic changes and the disease have not been extensively reported. Research presented in the February 2012 issue of the International Association for the Study of Lung Cancer's *Journal of Thoracic Oncology* shows a link between TB and mutations in the epidermal growth factor receptor (EGFR), a type of gene mutation found in non-small cell lung cancer. Researchers concluded that there is a relationship between pulmonary TB and EGFR mutations in patients with adenocarcinoma of the lungs. Adenocarcinoma is the most common type of lung cancer.

The researchers, including IASLC members Dr. Yuh-Min Chen, Dr. Reury-Perng Perng and Dr. Yu-Chin Lee, studied 275 patients with pulmonary adenocarcinoma between June 1999 and January 2011. Of those patients, 191 had EGFR mutations. Their findings show that “old TB lesions and scar cancer had a statistically significant association with EGFR mutation, especially exon 19 deletions,” the most common type of EGFR tumor mutation.

The incidence of tumor EGFR mutations is found to be higher in East Asian countries, such as Taiwan, as is the prevalence of pulmonary TB infection. The good news is that tumors with the EGFR mutation have a 75 percent response rate when treated with EGFR-tyrosine kinase inhibitors. This is likely why, according to the study, “those patients with old TB lesions who had EGFR mutations or exon 19 mutations survived longer than those who did not.”

Note: Dr. Yuh-Min Chen is available for media interviews via phone. Contact Kristal Griffith to arrange phone calls.

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. Founded in 1974, the association's membership includes more than 3,500 lung cancer specialists in 80 countries.

IASLC members promote the study of etiology, epidemiology, prevention, diagnosis, treatment and all other aspects of lung cancer and thoracic malignancies. IASLC disseminates information about lung cancer to scientists, members of the medical community and the public, and uses all available means to eliminate lung cancer as a health threat for the individual patients and throughout the world. Membership is open to any physician, scientist, nurse or allied health professional interested in lung cancer, including patients, survivors, caregivers and advocates.

IASLC publishes the *Journal of Thoracic Oncology*, a valuable resource for medical specialists and scientists who focus on the detection, prevention, diagnosis and treatment of lung cancer.

To learn more about IASLC please visit <http://iaslc.org/>. Like us on Facebook, or follow us on Twitter @IASLC.