

Latest research confirms genetic susceptibility to lung cancer

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Previous research has shown that Asian patients with lung cancer are more likely to harbor epidermal growth factor receptor (EGFR) mutations. Furthermore, Asian patients with lung cancer are more likely to be non-smokers than Western patients with lung cancer. Research in the May 2012 issue of the International Association for the Study of Lung Cancer's (IASLC) *Journal of Thoracic Oncology* goes deeper, investigated genetic factors and smoking exposure in Japanese lung cancer patients.

Researchers looked at the genetics of 716 Japanese patients with lung cancer and 716 without. They found, "the variants rs12914385, rs1317286 and rs931794 localized to the CHRNA5-CHRNA3-CHRNA4 cluster on chromosome 15q25 modified the impact of cigarette smoking on lung cancer risk, but showed no statistically significant major effect on the risk of lung cancer." They conclude that there is a significant difference in the impact of smoking on lung cancer risk among former smokers between those with and without genetic risk.

The study also suggests that "a suggestive difference in the impact of rs16969968 and rs8034191 on the 15q25 loci by EGFR status on lung cancer risk."

The authors conclude that the 15q25 genetic region should be studied further.

The lead author of this work is Dr. Hidemi Ito. IASLC member co-authors include Dr. Yasushi Yatabe and Dr. Tetsuya Mitsudomi.

Provided by International Association for the Study of Lung Cancer

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