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CORRECTION

- 491** Correction: JAK3 Variant, Immune Signatures, DNA Methylation, and Social Determinants Linked to Survival Racial Disparities in Patients with Head and Neck Cancer

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ABOUT THE COVER

Lung cancer and chronic obstructive pulmonary disease (COPD) are mainly caused by smoking. The five-year survival rate for patients with lung cancer has not improved over the last three decades, and COPD is expected to become the third most common cause of death by 2020. A COPD diagnosis increases the risk of lung cancer development up to 4.5 times. Therefore, it is important to understand the common molecular mechanism(s) driving these two devastating diseases in concert and discover dietary components or pharmacologic agents that can prevent or delay the progression of lung cancer and COPD.

A study by Rakic and colleagues (beginning on page 421) demonstrates that ferrets exposed to a carcinogen in combination with cigarette smoke developed COPD accompanied by preneoplastic and neoplastic lesions in the lungs, suggesting ferrets as an excellent model for studying COPD and lung cancer in preclinical settings. The authors further demonstrate that feeding with lycopene, a carotenoid found in tomatoes, inhibited carcinogen- and cigarette smoke exposure-induced COPD and lung carcinogenesis. Lycopene is effective in upregulating critical genes related to the reverse cholesterol transport pathway, resulting in restoration of total cholesterol concentrations in lung and plasma to normal. These results suggest that lycopene may inhibit COPD and lung cancer development by maintaining pulmonary cholesterol homeostasis. The cover depicts a ferret, the model animal used in this study.



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