

# Parkinson's gene linked to lung cancer

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Researchers at the Medical College of Wisconsin (MCW), in collaboration with other colleagues of the Genetic Epidemiology of Lung Cancer Consortium (GELCC), have identified a gene that is associated with lung cancer.

The findings are published in *American Journal of Human Genetics*. Through whole [exome sequencing](#), researchers identified a link between a mutation in PARK2, a gene associated with early-onset Parkinson's disease, and familial [lung cancer](#).

The researchers sequenced the exomes (protein coding region of the genome) of individuals from a family with multiple cases of lung cancer. They then studied the PARK2 gene in additional families affected by lung cancer.

"While this specific mutation is very rare in the general population, there was a significant association between the PARK2 mutation we studied and the families with multiple cases of lung cancer," said Donghai Xiong, PhD, assistant professor of pharmacology and toxicology at MCW and the lead author on the paper.

"These results implicate this specific mutation as a genetic susceptibility factor for lung cancer, and provide an additional rationale for further investigations of this gene and this mutation for evaluation of the possibility of developing targeted therapies against lung cancer in individuals with PARK2 variants," added Ming You, MD, PhD, the Joseph F. Heil Jr. Professor of Oncogenesis at MCW and Director of the

MCW Cancer Center.

Provided by Medical College of Wisconsin

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