

Colds and other infections may trigger mutation that causes Parkinson's

Scientists report that the most common Parkinson's gene mutation may change how immune cells react to generic infections like colds, which in turn trigger the inflammatory reaction in the brain that causes Parkinson's. Their study ("[Mutant LRRK2 Mediates Peripheral and Central Immune Responses Leading to Neurodegeneration In Vivo](#)"), published in *Brain*, contradicts the long-held view that Parkinson's was a disease that starts in the brain, destroying motion centers and resulting in the tremors and loss of movement.

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Mutations in the LRRK2 gene are the most common cause of inherited Parkinson's disease.

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"We know that gene mutation is not enough to cause the disease," said Dr. Kozina, a postdoc at Jefferson (Philadelphia University and Thomas Jefferson University). "We know that twins who both carry the mutation won't both necessarily develop Parkinson's. A second 'hit' or initiating event is needed."

Based on his earlier work showing that the flu might increase risk of Parkinson's disease, Dr. Smeyne decided to investigate whether that second hit came from an infection.

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[He said,] "Although we can't treat people with immunosuppressants their whole lives to prevent the disease, if this mechanism is confirmed, it's possible that other interventions could be effective at reducing the chance of developing the disease."

Read full, original post: [New Finding on Parkinson's Gene Mutation Alters View of What Causes the Disease](#)