



## PARKINSON'S DISEASE NEWS

<http://www.viartis.net/parkinsons.disease/news.htm>

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### PARKINSON'S DISEASE GENE SUPPRESSES CANCER

Melanoma incidence is higher in people affected by Parkinson's Disease but the genetic link shared by both diseases was unknown. The Parkin gene (PARK2) is often mutated in Parkinson's Disease and is consequently sometimes a genetic cause of Parkinson's Disease. However, PARK2 is also a tumor suppressor gene both of melanoma predisposition and progression. Melanoma is a form of skin cancer more common in Parkinson's Disease. For more information go to : <http://www.skincancer.org/skin-cancer-information/melanoma>



An in-depth analysis of the PARK2 (Parkin) gene showed that mutations were present far more often in Parkinson's Disease, making Parkinson's Disease nearly four times more likely. The formation of the Parkin gene occurs in melanocytes but not in most cells in which there is melanoma. The formation of the Parkin gene in melanoma cell lines resulted in a drastic reduction of cell proliferation. Inhibition of the Parkin gene in melanocytes stimulated their proliferation.

The results show an important role for the Parkin gene (PARK2), not only in Parkinson's Disease, but also as a tumor suppressor both in melanoma predisposition and progression, which could explain the association between Parkinson's Disease and melanoma.

Reference : Journal of the National Cancer Institute [2015] 108 (3) pii : djv340 (H.H.Hu, C.Kannengiesser, S.Lesage, J.André, S.Mourah, L.Michel, V.Descamps, N.Basset-Seguin, M.Bagot, A.Bensussan, C.Lebbé, L.Deschamps, P.Saiag, M.T.Leccia, B.Bressac-de-Paillerets, A.Tsalamlal, R.Kumar, S.Klebe, B.Grandchamp, N.Andrieu-Abadie, L.Thomas, A.Brice, N.Dumaz, N.Soufir)

Complete abstract : <http://www.ncbi.nlm.nih.gov/pubmed/26683220>

<http://www.viartis.net/parkinsons.disease/news/151223.pdf>

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