



PARKINSON'S DISEASE NEWS

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

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BREATH TEST TO DIAGNOSE PARKINSON'S DISEASE

Nanomedicine [2013] 8 (1) : 43-56 (U.Tisch, I.Schlesinger, R.Ionescu, M.Nassar, N.Axelrod, D.Robertman, Y. Tessler, F.Azar, A.Marmur, J.Aharon-Peretz, H.Haick)

A method of diagnosing Parkinson's Disease has been developed that uses breath testing. It can identify Parkinson's Disease and Alzheimer's Disease. Alveolar breath was collected from people with Parkinson's Disease or Alzheimer's Disease or who had neither. Their breath was analyzed using sensors (organically functionalized carbon nanotubes and gold nanoparticles). Statistically significant differences were compared between the different groups, which was supported by chemical analysis of the breath samples using gas chromatography combined with mass spectrometry.

The combinations of sensors could distinguish Parkinson's Disease from healthy states (with an accuracy of 78%), Alzheimer's Disease from healthy states (with an accuracy of 85%), and Parkinson's Disease from Alzheimer's Disease (with an accuracy of 84%). Gas chromatography combined with mass spectrometry analysis was able to show statistically significant differences in the average level of several volatile organic compounds in the breath of people with Parkinson's Disease, thus supporting the breath prints observed with the sensors. The method therefore has future potential as a cost-effective, fast and reliable means of assisting the diagnosis of Parkinson's Disease.

<http://www.viartis.net/parkinsons.disease/news/130605.pdf>

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