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Possible biomarkers for Parkinson's disease identified

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Scientists at Durin Technologies, Inc., and the University of Medicine and Dentistry of New Jersey-School of Osteopathic Medicine (UMDNJ-SOM) have announced a possible breakthrough in the search for a diagnostic biomarker for Parkinson's disease - a blood test that in the future may be able to detect the disease with high accuracy.

The research team's findings appear online in *PLoS ONE*.

"Parkinson's disease is second most common neurodegenerative disease among older adults and there is widespread recognition that early detection would allow treatment that could slow its progression," said Robert Nagele, PhD, a professor of medicine at UMDNJ-SOM and the founder of Durin Technologies, Inc. "A reliable blood test for Parkinson's would have tremendous impact on patients, on physicians and on clinical trials of potential disease-modifying drugs."

In an analysis that included more than 150 blood samples, Nagele and his team employed human protein microarrays to identify specific autoantibody biomarkers that may be able to diagnose Parkinson's disease with a high level of accuracy.

Approximately 50,000 Americans are diagnosed with Parkinson's disease each year. Today, physicians can only diagnose the disease through medical history, patient observation and laboratory tests that rule out other disorders. By the time a diagnosis is made using these methods, one-third of the neurons affected by Parkinson's may already be lost.

“Using this diagnostic strategy, it may soon be possible and feasible to develop an accurate, inexpensive and relatively non-invasive test to detect and diagnose Parkinson’s disease,” Nagele said.

An investment in Durin Technologies, Inc., by the Foundation Venture Capital Group (FVCG), LLC, a New Jersey Health Foundation affiliate that invests in start-up companies founded by researchers at UMDNJ, provided initial funding for this research.

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