Blood-Based Biomarker Panel for Diagnosis of Parkinson's Disease

A panel of four blood-based protein biomarkers that can be detected by ELISA to improve Parkinson's diagnosis

Reference: Parkinson's Biomarker

Objective

Licensing, University spin out, Commercial partner

Image: www.shutterstock.com

Background

There is an unmet clinical need for biomarkers for Parkinson's disease. Making an accurate diagnosis of Parkinson's disease is difficult, time-consuming and is based on clinical assessment of symptoms, medical history, physical and neurological examination, and response to the drug Levodopa. Expensive imaging methods such as magnetic resonance imaging (MRI), photon emission tomography (PET) and single-photon emission computed tomography (SPECT) are used to exclude conditions not associated with dopamine deficiency. Biomarkers that would allow monitoring of Parkinson's disease offers one of the most promising diagnostic tools with a commercial opportunity.

Tech Overview

The team at National University of Ireland, Galway have identified a panel of four blood-based protein biomarkers capable of identifying patients with Parkinson's disease. The biomarkers can be detected in a serum by enzyme-linked immunosorbent assay (ELISA). Established biomarkers combined with the current multimodal strategy including clinical and neurophysiological testing would significantly improve the diagnosis of Parkinson's disease.

The validated biomarker panel has also the potential to act as a marker for the extent of neurodegeneration and disease stage. It could be a valuable companion diagnostic for clinical trials on therapeutic benefit of inhibitors of neurodegeneration in Parkinson's disease.

Benefits

- Unmet medical need for diagnostic tests of Parkinson's disease
- Minimally invasive, diagnostic test in serum obtained from simple blood draw Potential for improved patient outcome

Applications

- Diagnostics

Core Researcher:

Prof. Afshin Samali

For more info. contact:

Fionnuala Lindsay
Case Manager,
Innovation Office, NUI Galway
Fionnuala.Lindsay@nuigalway.ie