A Biomarker Platform for Parkinson's Disease

**Title:** Biomarker Platform for Parkinson’s Disease

**Invention:** The invention is a biomarker platform for Parkinson’s disease. It combines several parameters on patient’s dermal fibroblasts to diagnose and monitor the progression of Parkinson’s disease. The parameters can potentially be correlated with specific clinical Parkinson’s disease (PD) phenotypes and severity.

**Background:** Approximately 60,000 Americans are diagnosed with PD each year, contributing to the 10 million worldwide. Making an accurate diagnosis of PD is difficult as there is no standard diagnostic tests. Most diagnoses are based on physician’s observation and experience. The current best industry practice involves scanning the brain to measure dopamine and brain metabolism. Unfortunately, these tests are extremely expensive and are limited to specialized imaging centers. The invention here fills the unmet need by potentially providing a set of standard tests for PD diagnosis and prognosis.

**Applications:**
- Diagnostic for PD
- Prognostic for PD

**Advantages:**
- Peripheral fibroblasts can be easily collected from patients.
- Phenotypes of these fibroblasts are correlated with PD disease severity.
- Potential to be used for both diagnosis and prognosis of PD.

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