

News Release

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MilliporeSigma and The Michael J. Fox Foundation Offer Service to Advance Parkinson's research

- **SMC[®] immunoassay technology from Merck detects small changes in biomarker levels, indicating level of cell dysfunction**
- **New understanding of cell dysfunction contributes to future therapeutics aimed at slowing disease progression**
- **Merck's service offered through support from MJFF is key to accelerating a path for improved treatment of Parkinson's disease**

Burlington, Massachusetts, June 18, 2024 – MilliporeSigma, the U.S. and Canada Life Science business of Merck KGaA, Darmstadt, Germany, a leading science and technology company, and The Michael J. Fox Foundation for Parkinson's Research (MJFF), are advancing research aimed at slowing progression of Parkinson's disease (PD). Through funding from MJFF's "Biomarkers to Support Therapeutic Trials Program", MilliporeSigma's SMCxPRO[®] immunoassay technology has been used to help detect low levels of a biomarker associated with cell dysfunction in patients. Now, the service is [available to the scientific community](#) through support from the MJFF. This will make it possible to track the response of different therapeutic options to disease progression.

"Using the SMCxPRO[®] immunoassay technology to assess cell dysfunction represents a significant step forward in developing new treatment options for people fighting PD," said Jean-Charles Wirth, Head of Science & Lab Solutions for the Life Science business of Merck KGaA, Darmstadt, Germany. "We're proud to offer our



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service through support from The Michael J. Fox Foundation to make this research possible. Our goal is to empower breakthroughs in neuroscience research tools and other technologies that impact life and health with science.”

The research is focused on the biomarker pS65 ubiquitin (pS65-Ub). PD is a neurodegenerative disease that predominantly affects certain nerve cells in a specific area of the brain. By the time motor symptoms become visible, 60% to 80% of these cells have already been lost or impaired. Before that, affected cells stop functioning properly, which ultimately leads to their death. One readout of dysfunction in these cells is pS65-Ub. Extremely sensitive test methods are required to detect it. Using the SMCxPRO[®] immunoassay platform, used to quantify levels of a specific target within a sample, scientists can now detect small concentrations of pS65-Ub. This helps, for the first time, to track the response of different therapeutic options on disease progression.

“Ultrasensitive assays allow us to research multiple biomarkers we know play a role in disease progression. These would be valuable to diagnose and stratify patients and for future therapeutic development. Current known therapies for PD can treat symptoms but do not slow or halt disease progression. We are hopeful this collaboration will contribute to improved quality of life for patients,” said Nicole Polinski, PhD, director of research resources at MJFF.

Currently, PD impacts around 10 million people worldwide. Its prevalence has doubled in the past 25 years, making it the fastest-growing neurological condition in the world. The number of people with the disease is expected to further grow to 20 million by the year 2050. MilliporeSigma’s contribution to Parkinson research has been recognized by CiteAb Awards, based on being the company with the most citations related to Parkinson’s research in 2023.

About the Life Science business of Merck KGaA, Darmstadt, Germany

The Life Science business of Merck KGaA, Darmstadt, Germany, which operates as MilliporeSigma in the U.S. and Canada, has more than 28,000 employees and more than 55 total manufacturing and testing sites worldwide, with a portfolio of more than 300,000 products focused on scientific discovery, biomanufacturing and testing services. Merck KGaA, Darmstadt, Germany, a leading science and technology company, operates across healthcare, life science and electronics.





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Around 63,000 employees work to make a positive difference to millions of people's lives every day by creating more joyful and sustainable ways to live. From providing products and services that accelerate drug development and manufacturing as well as discovering unique ways to treat the most challenging diseases to enabling the intelligence of devices – the company is everywhere. In 2023, Merck KGaA, Darmstadt, Germany, generated sales of € 21 billion in 65 countries.

The company holds the global rights to the name and trademark "Merck" internationally. The only exceptions are the United States and Canada, where the business sectors of Merck KGaA, Darmstadt, Germany, operate as MilliporeSigma in life science, EMD Serono in healthcare and EMD Electronics in electronics. Since its founding in 1668, scientific exploration and responsible entrepreneurship have been key to the company's technological and scientific advances. To this day, the founding family remains the majority owner of the publicly listed company. For more information about Merck KGaA, Darmstadt, Germany, visit www.emdgroup.com.

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