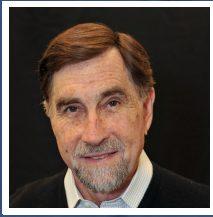


Using Novel Diagnostic Techniques to Transform Parkinson's Disease Research



J. William Langston
Chief Scientific Officer and Founder

CURRENT RESEARCH


Improving the early diagnosis of Parkinson's disease and developing innovative models for improved symptomatic and disease modifying therapies

Until recently, Parkinson's disease was thought to affect only a small area of the brain, and primarily involved dopamine loss. Because other neurological diseases often mimic Parkinson's, it is currently difficult to accurately and quickly diagnose. However, modern advances in neuropathology led to the discovery that Parkinson's is a multi-system and complex disease that affects many areas of the brain, spinal cord, and peripheral autonomic nervous system. Knowing this enables clinicians to better diagnose patients by not only considering typical symptoms—such as tremor and slowness of movement—but looking at gastrointestinal, cardiac, and cognitive dysfunctions as well. Dr. J. William Langston, Chief Scientific Officer and founder of the Parkinson's Institute and Clinical Center (PI), is revolutionizing Parkinson's disease research through his innovative discoveries over the past 26 years. Working with his colleagues at the Parkinson's Institute he is exploring the causes of Parkinson's disease through novel transgenic animal models, developing ways to identify the disease during the early pre-motor stage, and designing new strategies and therapies that broadly target all areas affected by the disease in order to slow or halt its progression.

A cutting-edge powerhouse driving current and future research in Parkinson's disease, the Institute's highly translational model includes a basic and clinical research program and a day-to-day clinic with patient care. He founded the institute after discovering an agent induced by a synthetic heroin, causing young patients to develop the disease overnight. This compound, MPTP, replicated all of the motor features of Parkinson's disease in humans. Dr. Langston...

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AFFILIATION

 Parkinson's Institute and Clinical Center

EDUCATION

- M.D., 1967, University of Missouri School of Medicine
- Neurology Residency and Fellowship, 1974, Stanford University School of Medicine

AWARDS

- Superior Service Award, 1971
- The Sarah L. Poiley Memorial Award, 1986
- James Parkinson's 30th Anniversary Award, 1987
- Distinguished Clinical Investigator Award, 1989
- First Lectured, "Decade of the Brain" Plenary, 1991
- and 7 more...

RESEARCH AREAS

Life Science, Diagnostics, Genomics / Congenital, Neurological / Cognitive

FUNDING REQUEST

Your contributions will help fund Dr. Langston's continued research in better understanding and accurately diagnosing Parkinson's disease for clinical trials and better day to day patient care. The long term goal is to screen the general population for early, pre-motor Parkinson's disease, which could lead to secondary prevention. The Parkinson's Institute and Clinical Center costs are around \$6M/year, which includes data gathering for more than 70 databases, maintaining a vivarium for drug screening, and performing clinical studies involving personnel, data analysis, interpretation, and imaging. Play a role in halting the progression of Parkinson's disease; fund Dr. Langston.