

PARKINSON'S RESEARCH PROGRAM



MISSION: To support high impact Parkinson's research that alters disease progression, improves disease symptoms, and develops treatments that benefit Service Members and their Families, Veterans and the general public

**Congressional Appropriations¹
FY97-FY24:
\$532.8M total**



"Speaking for consumers, i.e., PD patients, there is not a comparable program that I am exposed to that opens funding for creative,

disruptive, and challenging science. I am grateful for the funding the CDMRP offers. It's a difference maker."

*Kelly Sweeney,
Parkinson's Resources of Oregon,
FY22-FY24 Consumer Programmatic
Panel Member*



SCOPE OF THE PROBLEM

In FY22, Congress transitioned the Neurotoxin Exposure Treatment Parkinson's program to the **Parkinson's Research Program** and broadened the research scope to include all types of Parkinson's disease research.

- **1 million people** in the U.S. are living with Parkinson's disease²
- The cause **remains largely unknown**; scientists believe both genetic and environmental factors contribute
- Parkinson's disease is the **most common** neurodegenerative movement disorder

RELEVANCE TO MILITARY HEALTH

- Parkinson's disease affects an estimated **110,000 Veterans**³
- Peer-reviewed studies identified **military service-related risk factors** associated with the development of Parkinson's disease, including:



environmental hazards



repeated or prolonged disturbed sleep



traumatic brain injury



depression



prolonged or repeated autonomic nervous system disruption



prolonged physiological and mental stress



PROGRAM PRIORITIES

- **Biological mechanisms or biomarkers**, such as fluid, imaging, tissue, and devices, of unmet medical needs that could lead to the development of treatments for Parkinson's disease
- **Interventions** that address unmet medical needs of PD including clinical and preclinical models

¹ \$484.6M appropriated FY97-FY21 to the Neurotoxin Exposure Treatment Parkinson's program;

\$48.0M appropriated FY22-FY24 to the Parkinson's Research Program.

² <https://www.parkinson.org/Understanding-Parkinsons/Statistics>

³ <https://www.parkinsons.va.gov>



For more information, visit: <https://cdmrp.health.mil/prp>

PROGRAM IMPACT AND OUTCOMES

The PRP invests in research to improve the understanding of Parkinson's disease and to accelerate interventions that address unmet medical needs.

PRODUCT

IMPACT

Identified Parkinson's disease risk associated with residential exposure to commonly used environmental chemicals

Increases understanding of Parkinson's disease and potential effects of commonly used chemicals

Developed a clinical Parkinson's disease risk assessment tool

Identifies individuals at risk for Parkinson's disease based on smell capacity and neuroimaging, enabling earlier detection

Identified a regulator protein that, if lost, results in a pathway toward eventual loss of neurons

Increases understanding of the molecular mechanisms of Parkinson's disease; the regulator protein or other pathways proteins are potential therapeutic targets

Discovered the neuroprotective effects of carnosine

Suggests carnosine as a potential treatment for neurodegeneration

SUPPORTING FUTURE LEADERS TO BUILD CAPACITY IN PARKINSON'S RESEARCH

The PRP supports early-career investigators who demonstrate commitments to making impactful advancements in Parkinson's treatments and patient care.

ORGANIZATIONS SUPPORTING EARLY-CAREER INVESTIGATORS



ONGOING HIGH-IMPACT RESEARCH

Genetic Associations as Risk Factors

Identifying additional genetic risk factors associated with Parkinson's disease

- Genome-Wide Association Study with more than 5,000 genetic sequences
- Sharing findings with community research resources around the world

Impact: Doubled the known genetic risk factors for Parkinson's disease and contributes to understanding of disease-causing mutations

Diagnostics

Discovering unique DNA combinations, called splice variants, to diagnose Parkinson's disease

- Detectable in a simple blood test
- Validating in two clinical trials

Impact: Provides patients with a quick, accurate diagnosis to start treatment as soon as possible



Point of Contact: CDMRP Public Affairs

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