

# 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 Appropriations<sup>1</sup>  
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 disease<sup>2</sup>
- 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**<sup>3</sup>
- 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

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

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

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

<sup>3</sup> <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

### ORGANIZATIONS SUPPORTING EARLY-CAREER INVESTIGATORS

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



## 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

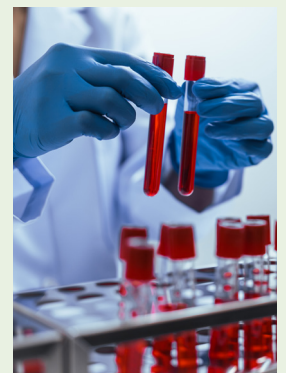
**Impact:** Doubled the known genetic risk factors for Parkinson's disease and contributes to understanding of disease-causing mutations

### 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



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