Spring 2025 Request for Applications
Molecular MRI Biomarker Program

BACKGROUND

Parkinson's disease is a complex neurodegenerative disorder driven by multiple pathological processes, including endolysosomal and mitochondrial dysfunction, neuroinflammation and immune system dysregulation. Molecular Magnetic Resonance Imaging (mMRI) offers a non-invasive method to visualize and quantify these molecular and cellular processes in vivo, providing critical insights into disease mechanisms and therapeutic response. The Michael J. Fox Foundation for Parkinson's Research (MJFF) funds research to better define, measure and treat Parkinson's disease and provides critical tools and other resources to advance that research. The Molecular MRI Biomarker funding program seeks to accelerate the development, validation, and clinical translation of mMRI biomarkers that target key pathways implicated in PD pathophysiology.

PROGRAM GOAL

The Molecular MRI Program seeks to advance the development of innovative mMRI techniques that directly quantify molecular and cellular events in PD.

Target Pathways on Interest:
We invite proposals that focus on the following molecular and cellular pathways associated with Parkinson's disease:

1. **Endolysosomal Dysfunction**: strategies to detect disruption in lysosomal activity, pathological protein accumulation, autophagy, etc.

2. **Mitochondrial Impairment:** strategies to measure mitochondrial bioenergetics, oxidative stress, metabolic changes and track mitochondrial dysfunction in-vivo.

3. **Neuroinflammation & Immune System Dysregulation:** strategies to detect and visualize inflammatory markers, quantify BBB integrity, etc.

MJFF **will prioritize** proposals that address one or more of the following areas:

- **Novel Probe/Sequence Development and Validation**: Priority will be given to programs with identified sequences or agents specific to the target pathways.

- **Preclinical Optimization and Validation: T**argeting sensitivity and specificity, BBB permeability, development of robust and reproducible imaging protocols etc.

MJFF **will NOT consider** proposals focused on**:** Prospective collection of clinical data using existing mMRI strategies. First-in-human studies will be considered on a case-by-case basis.

FUNDING AVAILABLE

Duration: 6 to 24 months
Award Amount: Budget should be commensurate with the work proposed.

These budgets include direct and indirect costs. For academic and for-profit institutions, no more than 15%, respectively, may go to indirect costs. Additional details about MJFF's indirect cost policy can be found in the Application Guidelines and FAQ.

DEADLINES & REVIEW SCHEDULE

- Full Proposals Due: **July 14, 2025, 5 p.m. US ET**
- Anticipated Award Announcement: November 2025
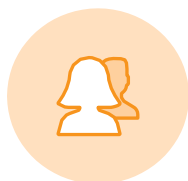- Anticipated Funding: December 2025

Applicants are encouraged to apply early to allow adequate time to correct errors found during the submission process.

ELIGIBILITY REQUIREMENTS

Applications may be submitted by researchers or clinicians in:

- U.S. and non-U.S. biotechnology/pharmaceutical companies, or other publicly or privately held for-profit entities; and
- U.S. and non-U.S. public and private non-profit entities, such as universities, colleges, hospitals, laboratories, units of state and local governments and eligible agencies of the federal government.
- Post-doctoral fellows are **NOT** eligible to apply as co-investigators.

DIVERSITY, EQUITY AND INCLUSION (DEI)

In pursuit of our mission to accelerate the development of better treatments and a cure for Parkinson's disease, MJFF aims to support a rigorous research agenda reflecting a wide and diverse range of perspectives on Parkinson's disease and carried out in diverse populations. Diversity may refer to characteristics including, but not limited to, race, religion, ethnicity, sex, gender identity, sexual orientation, socioeconomic circumstance, nationality, geographic background, ability and disability, political ideology and age. Parkinson's is a complex problem; the more angles from which we attack, the greater the chances of finding innovative scientific solutions to benefit everyone living with the disease. As such:

- The Foundation encourages applications from diverse investigators representing groups historically underrepresented in the research enterprise.
- Because research shows that diverse teams outperform homogeneous ones, we urge applicants to share information about the composition of the team that will carry out the funded work.

ADDITIONAL INFORMATION

The Application Guidelines provide general guidance on applying for funding from MJFF, though the RFA always supersedes information contained in the Application Guidelines.

MJFF holds an open access publication policy requiring articles resulting from MJFF-funded work to be published in a preprint repository, then in an open access forum with free and immediate readership rights. Grantees will be asked to provide proof of compliance with this policy, and future funding will be contingent upon adherence.

MJFF requires that the Principal Investigator be the primary applicant (i.e., the person who initiates and takes primary responsibility for the application). All application-related correspondence will be sent to the Principal Investigator.

For questions about the application process or project suitability for this call for applications, please email grants@michaeljfox.org .