

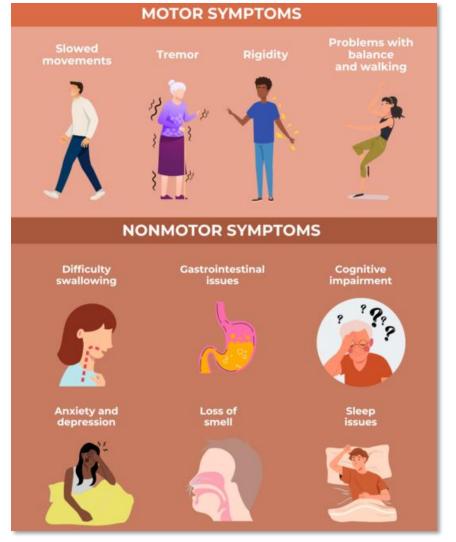
# MJFF TRANSLATIONAL RESEARCH

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### WHAT IS PARKINSON'S DISEASE?

- Second most common neurodegenerative disease
- Majority of cases do not have a known cause
  - 10% of cases have known genetic link
  - Risk factors include age, head injury, environmental exposures (pesticides, heavy metals, toxins).
- Classified as a movement disorder
  - Diagnosis based on motor symptoms
  - Non-motor symptoms can occur decades before diagnosis and progress with disease duration
- Treatment strategies are solely symptom management
  - Motor: dopamine replacement, dopamine agonists, deep brain stimulation
  - Non-Motor: traditional treatment strategy for symptoms in other indications





## THE STATE OF PARKINSON'S DISEASE RESEARCH



- + Genetics and related biology have exponentially expanded disease understanding, but we need more data to support new biology-informed and globally diverse disease definitions
- + Growing list of treatments address symptoms, but we *need more confident translation of biology and sustained investment in high-risk/high-reward disease-slowing treatments*
- + Clinical trial pipeline is robust, but we need more informative measurement tools and efficient and inclusive study designs to speed trial throughput
- + PD healthcare is improving, but we need to empower the broader stakeholder community with information and clarity on critical patient needs and options



# THE MICHAEL J. FOX FOUNDATION FOR PARKINSON'S RESEARCH



- + Founded in 2000 by actor Michael J. Fox
- + Global strategic funder and facilitator: more than \$2 billion deployed to a mission-driven strategic research agenda centered on advancing PD research and drug development
- + Accelerating cures by connecting community: people with Parkinson's, care providers, researchers, industry, investors, regulators, payers, policy-makers, and other strategic partners

Learn more at www.michaeljfox.org

Here. Until Parkinson's Isn't.



## FROM VISION TO MISSION

MJFF seeks to deliver unique value through a mission centered on a strategic research agenda

### **Our Vision**

A World Without Parkinson's Disease

- Early detection of people at risk before onset of symptoms
- Available treatments prevent onset, progression and impact of symptoms to maintain and restore function
- Healthcare systems deliver quality and accessible care to all who need it

### **Our Mission**

To Go Out of Business

"The Michael J. Fox Foundation is dedicated to finding a cure for Parkinson's disease through an aggressively funded [strategic] research agenda and to ensuring the development of improved therapies for those living with Parkinson's today."



## THE MJFF STRATEGIC RESEARCH AGENDA



MJFF is focused on moving projects through the therapeutic development pipeline to ultimately derisk the PD field for larger funders by:

- Launching strategic funding programs for key questions
- Addressing field-wide challenges in precompetitive initiatives
- Funding high-risk, high-reward projects
- Providing non-dilutive funding

Early in our history, we realized the quality and availability of tools were make-or-break for our success:

- Research grants experienced extensive delays due to inability to access the right tools
- Outcomes of grants were inconclusive or uninterpretable due to poor quality tools/models
- Successful projects couldn't be replicated or extended as tools were not widely accessible.



# Framing Our Strategic Research Agenda

High-level outcomes emphasize where we want to go to move us closer to cures



### **Clearer Disease Definition**

- More biology-centered
- More globally relevant



### **Better Treatments**

- More confident biology translation
- More robust and diverse pipeline



### **Faster Clinical Trials**

- More meaningful disease measures
- More efficient and inclusive designs



### **Quality Healthcare for All**

- Pro-PD policies and practices
- Educated providers/community



# **Turning Agenda into Action**

Progress needs seen through patient-centered perspective should shape our program priorities

Outcome	Prevent Disease	Slow Progression	Restore Function		Cross-Cutting Principles
Clearer Definition	Define <b>risk factors</b> and earliest biological features	Define <b>molecular subtypes</b> linked to clinical impact	Define <b>biological drivers</b> of most meaningful symptoms	+	Establish <b>open</b> resources to accelerate research
Better Treatments	Develop treatments against earliest biological features	Develop treatments matched to <b>biology</b>	Develop treatments addressing most meaningful symptoms	+	Leverage <b>key</b> partnerships to
Faster Clinical Trials	Establish measures for early detection and prevention	Establish <b>sensitive</b> measures of biology and progression	Establish sensitive measures of patient-relevant function	+	amplify impact  Connect an <b>engaged</b>
Healthcare for All	Reduce <b>environmental</b> contributors to risk	Address <b>care access</b> and t	reatment adoption barriers		and diverse community to guide and drive meaningful change



# **Mapping Our Programs**

Our initiatives ideally seek to address one or more barriers to progress

Outcome	Prevent Disease	Slow Progression	Restore Function	Cross-Cutting Principles	
Clearer Definition	ASAP Glo ASAP C Parkinson's Progressi M	Tools and Resource Programs Stakeholder Alliances Community Outreach and			
Better Treatments	MJFF Target Adva				
Faster Clinical Trials	MJFF Measurement PPMI				
	Path to Prevention ( <b>P2P</b> ) Platform Trial	Inclusive Recruitment	and Retention Programs	Education Programs	
Healthcare for All	Pesticide Policy and Advocacy Action Plan	Physician Training ar	CDC Surveillance Program  d Education Programs tion Intelligence Programs		
	Natio				



# **How We Act and Operate**

We balance and leverage multiple approaches and mechanisms to address our programmatic needs

Important Ways We Offer Support

### **Funding**

- Investigator grant funding around key topics and areas of interest
- Initiative and Partner Program implementation and funding

#### **Facilitation**

- Convening and Strategic Consensus-Building
- Research Resource Development and Distribution
- Education and Advocacy

### Important Mechanisms We Use

#### Request for Applications

- Open to all
- Best for seeking widenet capture of ideas

# Request for Proposals

- Open to selected invitees
- Best for targeted, consortium-like efforts or supplements

#### Staff-Directed

- Project-specific funding
- Reserved generally for resource generation and other contracted work

#### Staff-Led

- •MJFF-led initiatives
- Funding to cover leadership, operating and other key costs



# Partnerships are Essential to Our Impact

Consortia and public-private partnerships help identify field challenges and jointly overcome hurdles







Parkinson's Progression Markers Initiative





We support implementation of ASAP's strategic research roadmap to amplify impact









# Thank you!

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## **MJFF ACCESS DATA PROGRAM**

- » MJFF provides access to data from 10 studies through 5 research gateways, some of which also include patient biosamples.
- » Between the various resources, 8 different types of data are available.





**Imaging** 









Biological



Device



» To date, we've had >15 million downloads of these datasets by researchers.

Information on data sets and links to data gateways can be found at <a href="https://www.michaeljfox.org/data-resources">https://www.michaeljfox.org/data-resources</a>. Information on our Parkinson's Progression Marker's Initiative (PPMI) is at <a href="https://www.ppmi-info.org/access-data-specimens/download-data/">https://www.ppmi-info.org/access-data-specimens/download-data/</a>.

