THE MICHAEL J. FOX FOUNDATION FOR PARKINSON'S RESEARCH

TARGETS TO THERAPIES (T2T) PROGRAM: T2T VALIDATION CORE

FULL-PROPOSAL TEMPLATE

Complete this full proposal template by clearly describing your project and how it addresses the gap in the target validation plan. Outline a detailed experimental plan and expected outcomes for a project timeline of up to **2 years.**

- **Scientific Narrative (limited to 5 pages)**
- **Budget Narrative**
- **Team Narrative**
- **Supporting Materials**

All instructional text can be removed but keeping all section headings intact. You may include up to 2 additional pages of Literature Citations (not counted toward the 5-page limit of the Scientific Narrative). Upload the final proposal as a PDF to your online application in the Grant Portal. Use letter-size pages (8.5 x 11 inches), minimum 11-pt font, and at least one-inch margins on all sides. Bullet points are allowed. Images, graphs, and references are optional.

Principal Investigator:
Institution/Company:
Project Title:

T2T TARGET(s): 2026 Endolysosomal Targets

Select all that apply:

☐**Autophagy Pathway** ☐**GPNMB** ☐**VPS35** ☐**CTSB** ☐**GALC**

VALIDATION GAP: Select target validation gap(s) this project aims to address.

☐	***Biology:*** *Define how AUTOPHAGY PATHWAY, GPNMB, VPS35, CTSB, and GALC biology is altered in PD (including cell type–specific and mutation-specific effects), and determine the functional consequences for lysosomal, trafficking, and cellular homeostasis pathways*
☐	***Pathway/Mechanism:*** *Elucidate which components of the autophagy–lysosomal and endolysosomal trafficking pathways are deficient or compensatory in PD, and establish mechanistic directionality of target modulation on α-synuclein handling, lysosomal activity, and mitochondrial crosstalk*
☐	***Translational:*** *Establish links to idiopathic and genetically defined PD through biomarker development, patient stratification, and analysis of existing cohorts to validate target engagement and pathway-relevant readouts*
☐	**Tools:** *Generation and dissemination of robust preclinical models, activity assays, reporters, tagged lines, and chemical/biologic probes to enable rigorous assessment of target function and pathway modulation across in vitro and in vivo systems** **Please contact MJFF prior to submitting for this category to discuss sharing requirements*

SCIENTIFIC NARRATIVE

There is a 5-page limit to this section (excluding scientific references/citations)

PROJECT SUMMARY (300 words maximum)

Briefly describe your project's objectives and how they address the gaps identified in the Target's validation profile.

BACKGROUND

Give a detailed background of your proposed project, covering:

- The specific gap(s) in the Target Validation Profile you aim to address
- The innovative edge or advantage of your approach
- Preliminary data to support the feasibility and rationale of your approach
- The high-level outcomes you expect to achieve through this work

EXPERIMENTAL PLAN

Provide a detailed description of your study plan, including the following elements:

- **Experimental Approach:** Describe the specific experiments planned to address the identified validation gap. Also, describe how the specific experiments are coordinated with, or will enable, other T2T efforts (e.g., data or sample sharing, common endpoints, assays or reagents, etc.) and any direct collaborations proposed with other potential T2T awardees.
- **Model Systems:** Detail the models to be used (e.g., in vitro, in vivo, ex vivo, or patient-derived samples), with justification for each. Include RRID numbers where available.
- **Assays and Techniques:** Outline the key assays and methodologies (e.g., biochemical, imaging, molecular, functional) that will be used to assess critical target endpoints such as expression, function, and engagement. Cite relevant publications and/or preliminary data demonstrating your team's expertise with these techniques.
- **Sample Size and Statistical Analysis:** Provide detailed information on sample size calculations, including assumptions for power, significance level, effect size, and selected outcome measures. List and justify the statistical methods to be used (e.g., ANOVA, regression, Bayesian inference).
- **Controls and Replication:** Describe the use of controls and replicates to ensure data robustness and reproducibility.

RESOURCES

List all key models, reagents, patient samples, and/or datasets required for the study, or that will be generated during the course of the study.

- For each resource, indicate its availability—whether it is currently available or will need to be generated or acquired during the project.
- For reagents/models that require generation, describe the validation strategy and outline contingency plans in case generation/validation is unsuccessful.

- For resources that will be generated during the course of the study, indicate whether you anticipate restrictions in making these resources available to others (eg third party intellectual property, plans to patent, restrictions from patient consent forms, etc) and outline how and when resources could be shared (for assistance in transferring reagents/models to repositories, see the MJFF Sponsored Tools Program).

RISKS

- Highlight the primary risks associated with the project and potential mitigation strategies.

PROJECT MILESTONES AND TIMELINE, AND OUTCOMES

Define the key milestone or inflection point your project aims to achieve and explain how it addresses the identified validation gap(s). For each milestone, provide the following:

- **Milestone Description:** Clearly define the milestone or inflection point and its relevance to addressing the validation gap.
- **Decision Points & Success Criteria:** Specify the quantifiable indicators or decision points that will determine whether progression to the next phase is justified.
- **Timeline:** Present a realistic timeline with estimated completion dates, structured by milestone periods (e.g., 0–3 months, 3–6 months, etc.). Include deliverables that pertain to accessing a preclinical/clinical resource and/or generating and QC'ing these in the lab.
- **Expected Outcomes:** Describe the high-level outcomes you aim to achieve and how they will contribute to closing the gaps in the target validation profile.

INTELLECTURAL PROPERTY & DATA SHARING

Describe any intellectual property considerations or restrictions (e.g., freedom-to-operate) that may impact data or resource sharing with the broader PD community. As The Michael J. Fox Foundation (MJFF) is a public charity, research enabled by funds from MJFF must be conducted in the public interest, with results promptly published and broadly disseminated to accelerate innovation and foster collaboration. By submitting your application, you agree to adhere by MJFF's Open Access Policy, and make data available to the research community.

DIVERSITY, EQUITY, AND INCLUSION PLAN

MJFF is committed to integrating sex and gender into the whole research process. Thus, we encourage applicants to consider sex as a biological variable in their proposed study, if applicable. If your study design involves the use of a single sex in experiments using cells and/or animal models, please provide a scientific rationale for this decision.

LITERATURE CITATIONS

You may use number formatting in the scientific narrative section to reduce word count. Please use a citation format in the bibliography that lists **all** author last names (i.e., "Smith S, Cox A, Napolitano R, Patel R," not "Smith et al.").

BUDGET NARRATIVE

Funds awarded by MJFF are to be used solely for the project. The budget template can be downloaded from the **Attachments** tab of the online application, where it will also be uploaded. There is no page limit for this section.

BUDGET JUSTIFICATION

1. Please provide a detailed budget for up to 2 years. Budgets may include both direct and indirect costs. For academic and for-profit institutions, no more than 15% or 10%, respectively, may go towards indirect costs.

2. Please provide a budget breakdown for the full duration of the project, itemized by each aim and sub-aim. An example of this is provided below:

Breakdown of budgets	Institution #1	Institution #2	Total for year 1 (include indirect costs)	Total for year 2 (include indirect costs)
Aim1a				
Aim 1b				

3. Provide a brief description of the roles and responsibilities of Key Personnel on the project. All individuals listed in the Team Information Grid in the grant portal must be detailed here. Consultants and subawardee organizations should be described as well.

4. Provide a justification of key budget items, specifying their relevance to the project (for example, recruitment and retention costs). For a list of allowable and unallowable costs, refer to the Team and Budget Guidelines document.

5. **Non-US based institutions:** the exchange rate between local currency and USD should be calculated at the time of application. Please note the date the rate was calculated, exact exchange rate, and source of information.

TEAM NARRATIVE

There is no page limit for this section.

1. Provide an overview of your team, and demonstrate that the team has the appropriate personnel, equipment, and expertise to do the work. Please include a description of what each team uniquely contributes (e.g technical knowledge, experience with collection or analysis of relevant data sources and cohorts, path towards validation or commercialization, advanced analytics, etc.) to accomplish the stated project and goals.

2. Explain how you will leverage the specific expertise and/or institutional resources to address key unmet needs/challenges.

3. Explain why the applicant(s) are best suited to conduct the proposed studies.

SUPPORTING MATERIALS

FIGURES AND/OR PHOTOGRAPHS

You may insert one additional page of figures, photographs, or other supporting data.

RELEVANT ARTICLES

You may link or insert highly relevant articles referenced in the scientific narrative that are published or "in press" at the time of application submission.