United Mitochondrial Disease Foundation & Mito Foundation
2026 Research Grant Program
Request for Proposals

Mission and Program Overview

The United Mitochondrial Disease Foundation (UMDF), in collaboration with the Mito Foundation (Australia), is pleased to announce the 2026 Research Grant Program. UMDF and the Mito Foundation are committed to advancing research that leads to improved diagnosis, treatment, and ultimately cures for individuals affected by primary mitochondrial disease (PMD).

Strategic Priorities

The 2026 Research Grant Program emphasizes the following strategic priorities:

- Advancing disease-focused research across basic, translational, and clinical domains
- Training and workforce development for the next generation of mitochondrial disease researchers

In addition, two cutting edge and emerging themes are prioritized in this grant cycle:

Precision Medicine Approaches

Precision medicine proposals should address biological or clinical heterogeneity in primary mitochondrial disease and enable more individualized approaches to diagnosis, prognosis, or therapeutic development. Examples include, but are not limited to:

• Genome and base editing technologies, including PRIME editing and related approaches applicable to nuclear-encoded mitochondrial genes or disease modifiers
• RNA-based strategies such as antisense oligonucleotides, RNA editing, or transcript-targeted therapies
• Patient-derived or isogenic cellular models, including iPSC-based systems and organoids
• Single-cell, spatial, or multi-omic approaches that enable patient stratification or subtype definition
• Biomarker discovery or validation supporting patient selection or treatment response
• Computational or AI-driven methods integrating molecular, clinical, or functional data
• Novel delivery or targeting strategies relevant to mitochondrial disease tissues or pathways

Applicants should clearly articulate how the proposed work advances individualized understanding or management of primary mitochondrial disease and informs downstream translational or therapeutic development.

Clinical Trial Readiness

Clinical trial readiness proposals should focus on generating the data, tools, or infrastructure necessary to enable feasible, informative, and efficient interventional trials in primary mitochondrial disease. Examples include, but are not limited to:

• Natural history studies defining disease progression, variability, or clinically meaningful milestones
• Development or validation of outcome measures, including functional, digital, or patient-reported endpoints
• Biomarker development suitable for exploratory, pharmacodynamic, or surrogate trial endpoints
• Innovative trial design approaches, including adaptive designs, Bayesian methods, or external controls
• Decentralized or hybrid trial models that reduce patient burden and improve participation
• Registry, data, or site readiness initiatives supporting trial planning and execution
• Regulatory-enabling studies or frameworks that reduce uncertainty for future interventional trials

Applicants should describe how the proposed work reduces risk, uncertainty, or barriers associated with conducting clinical trials in primary mitochondrial disease.

Projects may address one or more of these priorities. Alignment with these priorities will be considered during scientific review and portfolio development.

Scope of Research

The focus of this RFP is research related to primary mitochondrial disease. Proposals that leverage models or insights from secondary mitochondrial dysfunction are welcome, provided a clear and compelling rationale is presented demonstrating how the proposed work may benefit individuals with primary mitochondrial disease.

Applicants are strongly encouraged to articulate the translational relevance of their work and its potential impact on patients with mitochondrial disease.

Priority Disease Areas

While applications addressing any form of primary mitochondrial disease are welcome, the following disease classes are areas of high interest in the 2026 grant cycle:

- Disorders of mitochondrial fatty acid synthesis, including MEPAN syndrome (Mitochondrial Enoyl-CoA Reductase Protein-Associated Neurodegeneration)

- Disorders caused by single large-scale mitochondrial DNA deletions (SLSMDs), including Kearns–Sayre syndrome (KSS)
- Leigh syndrome and related disorders, including Neuropathy, Ataxia, and Retinitis Pigmentosa (NARP)

Alignment with these priority disease areas will be considered as part of post-review portfolio construction and **does not constitute an eligibility requirement**.

Funding Mechanisms

UMDF and the Mito Foundation anticipate awarding up to a total of USD $500,000 in this grant cycle. The number, total dollars, and distribution of award types will depend on the quantity and quality of applications received. Three funding mechanisms are available:

Graduate Student Award

- Eligible applicants: PhD graduate students who have advanced to candidacy (completed qualifying examinations), working under the supervision of an advisor conducting mitochondrial disease research.
- Award amount: Up to USD $25,000 total
- Duration: 1 year
- Allowable costs: Salary stipend only

Postdoctoral Fellowship Award

- Eligible applicants: Postdoctoral fellows (PhD or MD/PhD) working under the mentorship of an investigator conducting mitochondrial disease research
- Award amount: Up to USD $50,000 total
- Duration: 2 years
- Allowable costs: Salary stipend only

Principal Investigator Award

- Eligible applicants: Independent investigators (PhD or MD/PhD) leading a laboratory with an interest in mitochondrial disease
- Max award amount: Up to USD $100,000 total
- Duration: 2 years
- Allowable costs: Salary, benefits, supplies, and services
- Principal Investigator salary support may not exceed 15% of the total award budget

Application Process

All applications must be submitted through the UMDF Online Grant Portal using the standardized application form. Detailed application instructions and templates will be provided.

Applicants are responsible for ensuring that all required institutional approvals are obtained prior to submission. Late submissions will not be considered.

Review Process

All applications will undergo rigorous peer review conducted by experts in mitochondrial biology, clinical care, and translational research. Review criteria include scientific merit, rigor, innovation, relevance to mitochondrial disease, and alignment with program priorities.

Following peer review, UMDF and the Mito Foundation will consider overall portfolio balance, including disease focus, career stage, and strategic alignment, when making final funding decisions.

All applicants will be notified of funding decisions and applications that proceed beyond the initial triage phase will be provided with a brief summary of feedback.

Award Administration

UMDF will serve as the contracting organization for all awards. Awardees will be required to execute a UMDF Research Grant Agreement that includes terms for handling of IP. UMDF does not provide indirect costs.

Funds are expected to be available as early as September 2026, pending execution of grant agreements.

Questions

Questions regarding this RFP or any aspect of the Research Grant Program may be directed to grants@umdf.org.