2026 MPN Challenge™ Request for Applications (RFA)

FUNDING PROGRAM SUPPORTED BY THE MPN RESEARCH FOUNDATION
Call for Proposals: January 6, 2026
Application Deadline: March 23, 2026

Overview

The MPN Research Foundation (MPNRF) proudly invites researchers, innovators, and collaborators from across disciplines to participate in the 2026 MPN Challenge™, our signature funding initiative designed to accelerate innovative, patient-focused research in myelofibrosis (MF), polycythemia vera (PV), and essential thrombocythemia (ET).

Since its inception, the MPN Challenge has catalyzed discoveries across the myeloproliferative neoplasms (MPN) research spectrum, from foundational biology to translational advances, that bring us closer to improved treatments and, ultimately, a cure. The 2026 cycle continues this legacy with a renewed focus on collaboration, technology, and patient partnership to drive meaningful scientific progress.

Building on guidance from our Scientific Advisory Board (SAB), Patient Impact Council (PIC), and Board of Directors (BoD), MPNRF is taking a leadership role in shaping strategic priorities in MPN research. The 2026 RFA highlights two areas of high importance that align with our broader vision, while remaining open to all innovative proposals relevant to MPN biology and therapy. This year's RFA represents an open call for proposals with two defined program areas of emphasis that align with MPNRF's strategic priorities:

1. Artificial Intelligence and Machine Learning (AI/ML) in MPNs – harnessing computational innovation to uncover new insights into disease mechanisms, progression, and patient outcomes.
2. MPL Milestones – advancing therapeutic options for MPL-driven MPNs, an underexplored domain representing a critical unmet need.

While all proposals relevant to MPN biology, therapy, and patient-centered outcomes are welcome, MPNRF is particularly interested in projects that apply AI/ML approaches capable of yielding measurable impact within two years, and in novel translational research addressing MPL-driven disease. This includes studies spanning mechanistic discovery through symptom burden, quality of life, progression risk, and real-world clinical outcomes.

Central to the MPN Challenge is MPNRF's commitment to patient partnership. Through our PIC, individuals with lived MPN experience actively contribute to the review process, ensuring that research priorities remain grounded in what matters most to patients and caregivers. This collaborative model strengthens the bridge between innovation and real-world relevance, keeping the patient voice at the center of discovery and innovation.

Funding and Duration

- Award Amount: Up to $125,000 per year for two (2) years.
- Total Possible Funding: Up to $250,000. Budgets may include up to 8% indirect costs.
- Select projects demonstrating significant progress may be invited for a competitive third year. *MPL Milestones projects will not be eligible for a third year of funding.*
- Project Period: Two years from fully executed award agreement.
- Each awarded proposal is expected to designate one primary institution as the recipient of the funding.

Projects will be awarded for a maximum of $125,000 a year for two years, with the second year of funding contingent on satisfactory progress and approval. This will be assessed by interim and annual progress reports and discussions with MPNRF staff. The year 2 continuation review is substantive in nature and may result in non-renewal if adequate progress is not demonstrated. A third-year competitive renewal (excluding MPL Milestones projects) will also be offered based upon progress, a competitive proposal, and the availability of funding.

MPNRF follows rigorous peer review standards modeled after NIH practices. Scientific peer reviewers are independent experts drawn from academic, community, or industry research settings and are required to disclose and manage

any potential conflicts of interest. All reviewers are required to sign a Non-Disclosure Agreement (NDA). The review panel, comprising scientific experts and patient representatives, provides scores and feedback that are evaluated by MPNRF's Scientific Steering Committee (SSC). The SSC then guides final funding recommendations presented to the Board of Directors, who approve awards and funding levels.

All MPNRF award recipients are invited to the MPN Roundtable, an annual meeting that brings together patients and caregivers, researchers, clinicians, and biopharma partners. This intimate forum fosters open dialogue, collaboration, and exchange of ideas across the MPN community. Awardees present their work, receive feedback, and participate in broader discussions that help shape the future of MPN research and care.

Eligibility

This opportunity is open to investigators at academic or non-profit research institutions worldwide who are pursuing innovative, high-impact MPN research. Applicants must hold an independent faculty appointment (Instructor, Assistant Professor, or equivalent and above) and be eligible to serve as a Principal Investigator (PI) at their home institution.

Postdoctoral fellows, clinical fellows, and other trainees are not eligible to apply as PIs but may participate as collaborators. Early-career investigators are strongly encouraged to apply. Multi-institutional collaborations are welcome, provided that one institution is designated as the primary recipient of funds.

Research Focus Areas

A. Artificial Intelligence / Machine Learning in MPNs

Background:

AI/ML offers powerful new ways to identify patterns and relationships within the complex biological, clinical, and imaging data that define MPNs. These approaches can uncover cellular and molecular features not easily recognized through traditional analysis, improving our ability to understand disease mechanisms, predict progression, and personalize treatment. As data sources in MPNs continue to

expand, integrating AI/ML into research represents a critical opportunity to advance precision diagnostics, therapeutic development, and patient outcomes in this underexplored area.

Objective:
Accelerate the use of AI and ML approaches that generate meaningful insights into MPN biology, diagnosis, and treatment. Proposals should aim to apply computational methods that can integrate diverse datasets or reveal actionable patterns to improve prediction of disease course, therapeutic decision-making, or patient outcomes. Applicants are encouraged to outline measurable milestones or outcomes within the two-year project period.

Research Areas of Interest (but are not limited to):

- Disease Biology & Discovery – AI/ML applications focused on uncovering fundamental disease mechanisms.
    - Omics-based discovery (DNA/RNA/protein/epigenetics) to identify new biomarkers or molecular signatures
    - Integration of multi-dimensional datasets to define cellular or molecular drivers of MPN initiation, progression, and heterogeneity
- Diagnosis & Imaging Innovation – AI/ML tools that improve accuracy, reproducibility, or standardization in diagnostic assessments.
    - AI-enhanced bone marrow or spleen imaging
    - Automated grading or interpretation (fibrosis grading, spleen volume, pathology integration)
    - Diagnostic models that combine imaging, pathology, and clinical data for subtype differentiation
- Risk Prediction & Prognostic Modeling – Models that predict disease trajectory or patient risk.
    - Progression prediction models (ET/PV → MF; MF → AML)
    - AI/ML-driven risk stratification integrating clinical, molecular, genomic, ethnic, and/or germline factors
    - Models identifying early warning signs of aggressive disease
- Patient-Centered & Therapeutic Applications – AI models that directly support patient care decisions or reveal real-world patient experiences.
    - Personalized treatment algorithms using genomic, cytokine, or clinical features

- AI analysis of real-world data (registries, patient reported outcomes, digital health tools) to guide therapeutic decisions and supportive care
- Tools to predict treatment response or adverse events

MPNRF strongly encourages proposals that integrate AI/ML development with experimental or translational validation in relevant MPN models to ensure biological and clinical relevance.

B. MPL Milestones Program

Background:

MPL-driven MPNs represent approximately 3% of MPNs globally, affecting a meaningful subset of patients across regions. International cohorts indicate that MPL mutations occur in ~5–10% of myelofibrosis cases and 1–4% of essential thrombocythemia cases. Despite significant progress in understanding and treating JAK2- and CALR-mutated MPNs, there remain no disease-modifying therapeutic strategies for MPL-mutated disease.

Objective:

Accelerate translational research that can lead to new or repurposed therapeutic options for patients with MPL mutations, with an emphasis on near-term clinical relevance.

Research Areas of Interest:

- Discovery and development of new drugs targeting MPL-mutated pathways
- Drug repurposing for MPL-driven MPNs
- Studies of disease mechanisms and resistance in MPL cases
- Identification of cooperating mutations that influence disease course or therapy response
- Risk stratification, biomarker development, and real-world outcomes research to inform treatment selection in MPL-mutated MPNs

Evaluation Criteria

Criteria for Evaluation for All Applications:

- Relevance to mission and goals of accelerating access to high quality, effective, and even curative therapies for people living with ET, PV, and MF.

- Research Strategy and Feasibility. Are the project's objectives, experimental layout, procedures, and analyses well-developed and integrated? Does the principal investigator (PI) recognize risks and hazards that can arise? Is it fair to anticipate that the research will provide significant results within the award's two-year duration?

- Innovation. We are in favor of ideas that allow for the preliminary research of novel concepts that might lead to the opening of fresh lines of inquiry. MPN Challenge projects are generally NOT meant to promote the logical progression of an already existing research effort.

- Potential for Near-Term Patient Impact. Will the accomplishment of the specific aims advance our knowledge of MPN causes, prevention or cure? Is it clear from the narrative that this research has the potential to impact patients?

- Research Environment and Support

Peer Review Process

All applications will undergo a dual peer review.

- Scientific reviewers will evaluate innovation, rigor, feasibility, and translational potential.
- Patient/advocate reviewers will assess clarity and potential patient impact.

Final recommendations will be made by the Science Steering Committee (SSC) and approved by the MPNRF Board of Directors.

Application and Submission

2026	Milestone
January 6th	Call for Proposals
March 23rd at 11:59PM CT	Proposal Deadline
July 15th	Peer Review Meeting
July 28th	Notifications of Awards

Required Documents:

- Scientific and Lay Abstract (350-word limit per abstract)
- Project Description (5-page limit)

- Budget and Justification (Proposals may request up to the full amount of the grant including up to 8% indirect costs)
- Investigator Biosketch(es)
- Letters of Support (if applicable)

It is highly recommended that submissions be completed *prior* to the deadline. Applications must be submitted electronically via MPN Research Foundation's online portal. APPLY HERE.

Award Management and Reporting

- Progress Reports: Required at 6, 12, 18 and 24 months post agreement execution.
- No-Cost Extensions: Maximum of 6 months, with requests due 60 days before the original end date. *Provided solely at the discretion of MPNRF.*
- Final Reports: Due within 30 days of project completion.
- Failure to comply may impact eligibility for future funding.

MPNRF believes that sharing data is critical for advancing science as rapidly as possible. We recognize that the research process is confidential, however, it is our expectation that all data will be made available to the public within a year of their generation. We encourage scientific papers, presentations at the American Society of Hematology (ASH) conferences or comparable venues, smaller meetings, and website publication.

Provisions Related to Intellectual Property

The MPN Research Foundation is committed to translating the results of basic and translational research to MPN patients. To that end, we include in our contracts with the institutions of our awardees Intellectual Property language meant to ensure that no critical results are left without productive follow-up. Should your proposal be selected for an award, we will provide you with this language and ask you to work with your grant office to achieve a timely agreement on these Provisions.

Limitation on Contract Negotiation Period:

Following award notification, the MPN Research Foundation will interact with each

awardee's institutional grant or research administration office to establish a contract for each award. It is our experience that this process can be completed in a 3-month period, especially if the terms of the award (including Intellectual Property as described above) are reviewed by the grant office prior to submission of the proposal. MPN Research Foundation reserves the right to cancel a grant if it is not possible to complete contract negotiations within three months of the award notice.

Contact Information

For scientific or administrative questions, please contact:

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