# 2024 Medical Toxicology Foundation
# Innovative Research, Education or Practice Grant

## REQUEST FOR PROPOSAL

## November 2023

| | |
|---|---|
| Letter of Intent Due: | 11:59 PM ET on February 1, 2024 |
| Deadline for receipt of application: | 11:59 PM ET on March 1, 2024 |
| Notification of award: | June 2024 |
| Funding Period: | 1 year, commencing July 1, 2024 |
| Total Funding Available: | 1 award at $20,000 |

### PURPOSE

The Medical Toxicology Foundation (MTF; "the Foundation") anticipates awarding up to a maximum of $20,000 in 2024 to fund one innovative project that supports the Foundation's mission to advance research and education in the prevention and treatment of patients adversely impacted by drugs, chemicals, and natural toxins.

### SCOPE AND OBJECTIVE

The scope of this award is intended to be broad and creative. Proposals may be clinical or nonclinical in nature but must have relevance to the practice of medical toxicology. All proposals that support the mission of the Foundation will be considered. We welcome grants with an innovative research, teaching or practice focus.

### ELIGIBILITY

The principal investigator (PI) and mentor (if applicable) must be active ACMT members in good standing, but ACMT membership is not required of co-investigators. Consultation with, and involvement of, professionals from other disciplines is encouraged. Applications are welcomed and encouraged from trainees (e.g., students, residents, fellows) and early-career researchers (those within 5 years of completing fellowship). However, PI's meeting either of these criteria must be supported by an established investigator (mentor) and must include a clear description of the mentor's role within the proposal.

The MTF believes that the research funded by this award should be presented to the medical community through appropriate scientific channels, such as national meetings and peer-reviewed publications. As conditions of the award:

- Successful applicants are expected to submit an abstract of their findings to the ACMT's Annual Scientific Meeting in the year following completion of the work
- Successful applicants are expected to submit their work for publication in a peer-reviewed journal

- Any presentation or publication is required to recognize the MTF as the funding source

**INSTITUTIONAL SUPPORT**

The PI (and mentor, if applicable) must assume overall responsibility for the conduct and supervision of research performed by trainees or more junior investigators. In the case of clinical research, it is expected that PI (and mentor, if applicable) will demonstrate that access to a suitable caseload or patient population will be available during the funding period. If a basic science or nonclinical project is proposed, the applicant must show that adequate and appropriately equipped laboratory space will be available during the funding period. A letter of support from the Residency Director is required for resident applicants. A letter of support from the Fellowship Director is required for fellow applicants.

**ETHICS APPROVAL**

Research involving animals or human subjects must be approved by the institutional review board (IRB) or equivalent prior to the start of the award. A copy of the approval (or pending application) should be included with this application. In the latter case, funds will only be dispensed once approval has been obtained.

**EVALUATION OF APPLICATIONS**

Each application will be reviewed by a panel of clinician scientists with expertise in medical toxicology and research methodology, and the final funding decision will be made by the MTF Board of Directors. In some circumstances, the MTF board may require additional information or response to reviewers concerns prior to funding decisions. Investigators will be responsible for responding promptly. All decisions are final.

Applications will be evaluated on several parameters:

a. the scientific content of the research project, including:
    i. a thorough background literature review
    ii. a clearly expressed research hypothesis
    iii. a detailed description of study methodology including anticipated timelines
    iv. sample size calculations (where appropriate)
    v. statistical analyses
    vi. anticipated challenges and mitigation strategies
    vii. knowledge translation efforts
    viii. budget justification
b. the anticipated significance, novelty, and feasibility of the project
c. the qualifications of the supervisor/senior investigator (if applicable) and other team members
d. the role of the applicant in the initiation, development, conduct, and reporting of the project
e. the anticipated educational experience for any involved trainees
f. any other support (financial or in-kind) relevant to the conduct of the research

**TERMS OF THE GRANT**

Progress report

The PI must submit a progress report to the MTF at the mid-point in the grant period (January 1, 2025). This report can be brief but must include i) a general statement of progress to date and ii) identification of any previously unforeseen challenges or obstacles that might undermine the timely completion of the research.

Final report

The PI must submit a final report within 90 days of the end of the grant period, outlining the overall status of the research, anticipated dissemination plans including publication and conference presentation(s), and allocation of research funds.

Change in status of trainee or PI/supervisor

If the affiliation(s) of the PI changes during the course of the award, the MTF must be notified promptly and must be provided with a plan to ensure successful completion of the project. If it is determined that the research is no longer feasible, the award will terminate, and any remaining balance will be returned to the MTF.

Location of work

Grants are awarded to the institution at which the applicant will be employed at during the research year. The PI will make all arrangements for conduct of the proposed research projects.

Financial Support

It is anticipated that all funds will be disbursed at the outset of the grant, unless otherwise requested. The MTF will not be responsible for institutional overhead.

Liability of the MTF

The MTF assumes no financial liability regarding patient care responsibilities of any kind related to the conduct of the grant. As a condition of funding, the PI's institution indemnifies ACMT and the MTF against any and all liability arising from the conduct of personnel affiliated with the grant, and any care provided to patients in the course of research.

Patent Policy

The PI's institution acknowledges that if a patentable invention or discovery is conceived and reduced to practice by the applicant during the term of their award, the MTF must be apprised of the invention and the institution's plans for protecting such invention under existing institutional patent policy. The MTF will defer to institutional policies where they are in compliance with those of the Federal government. The MTF reserves the right where the institution has no patent policy, or policies not in compliance with those of the Federal government, to claim rights and interests in the invention or discovery.

Limitations on Grants

Neither the ACMT nor MTF will be fiscally responsible for funds necessary for the project's completion. Funds are not to be used for the capital equipment costs (i.e., equipment costing more than $500 with a lifespan of more than one year, such as computers), faculty salary support, publication costs, travel over a maximum of $1000, or institutional overhead. Research funds may *not* be used to offset the PI or mentor's "clinical time" but may be used to support the work of essential personnel (for example, a research assistant or statistician).

## PUBLICATIONS

All discoveries resulting from work supported in part by the MTF should be made available to the public and scientific community through approved scientific channels such as national meetings and peer reviewed publications. Publication in the Journal of Medical Toxicology is encouraged. It is expected that any publications and conference presentations arising from a successful application will acknowledge the support of the MTF.

## CONTACT INFORMATION

Questions regarding this proposal should be sent by email to: Alison Meyn (alison.meyn@acmt.net) with copy to Dr. Stephanie Carreiro (stephanie.carreiro@umassmed.edu)

## LETTER OF INTENT (< 1 page)

A letter of intent is recommended from all applicants by February 1, 2024. This should be brief, and identify:

g. Name and contact information for the PI (and mentor, if applicable)
h. Names of any co-investigators
i. Participating institutions
j. Working title of the proposal
k. Concise description of the proposal

## APPLICATION INSTRUCTIONS

The application is required from all applicants by **March 1, 2024**. The application must be written in 12-point font, and must contain the following sections:

**1. INFORMATION PAGE** (limit 1 page)

This must include:

- the title of the grant
- the total amount of funding requested
- Identification of the PI (an ACMT member in good standing) responsible for oversight of the scientific and technical direction of the project, along with their affiliations and contact information
- a list of all associated investigators (including mentor if applicable) their affiliations and contact information

**2. SPECIFIC AIMS PAGE** (limit 1 page)

This is meant to be a brief summary of the proposed research that outlines the primary hypothesis, the specific research aim(s), a brief overview of study methodology, and the anticipated significance of research.

**3. RESEARCH PROPOSAL** (limit 6 pages)

Please use the following subheadings:

i) Significance: Provide a concise overview of existing knowledge, making clear what is not known. Note any preliminary data, where appropriate.

ii) Innovation: Explain how the proposed research is novel, represents an innovation that will advance the field of toxicology. Innovation can be in research methodology, education, and/or clinical practice).

iii) Approach

i. Setting – outline where the proposed research will be conducted, and briefly describe the support environment as it pertains to the proposed work.
ii. Data sources – for studies using previously collected data, describe in detail the source(s) of data that will be used to conduct the proposed research.
iii. Design – provide a description of how the proposed research will be performed. This will include not only the general nature of the study design (volunteer study, cohort study, chart review, animal study, etc.) but also a detailed explanation of how the research plan will be implemented. A sample size calculation related to the primary outcome must be provided where appropriate.
iv. Analytical plan – describe in detail the analysis plan. For example, if the research involves statistical modeling, describe not only the general nature of the model (e.g., linear, or logistic regression, survival analysis, etc.), but also what terms will be employed in the model and how model fit will be assessed.
v. Ethics – where appropriate, provide evidence of IRB approval or conformation of submission for approval. Applications involving research on human subjects or animals that do not do so will not be considered further.
vi. Research teams – list all members of the research team and provide a description of the anticipated role of each team member in the proposed work.

iv) Anticipated challenges and mitigation strategies: Characterize the potential threats to successful completion of the proposed work and outline what steps will be taken to mitigate risk.

v) Timelines and feasibility: Describe the anticipated timelines of the proposed research and its various elements and justify the feasibility of the proposed research within the requested funding period. It may be helpful to show a figure in this regard, which may be included in the body of the application.

vi) Knowledge translation: Describe how the research findings will be communicated to the scientific community and/or other relevant groups (e.g., the public), where appropriate

vii) Implications and Future Direction: Describe the importance of the proposed work, and how it is expected to advance the science of medical toxicology.

## 4. LETTER OF SUPPORT FROM SENIOR INVESTIGATOR/MENTOR, WHERE APPLICABLE (limit 1 page)

When the proposed research will be led by a trainee or early-career researcher within 5 years of completing fellowship, applications must include a letter of support from the senior investigator/mentor on institutional letterhead, expressing support for the project, describing their

qualifications as preceptor, and anticipated involvement in the proposed research project.

**5. BIOGRAPHICAL SKETCHES** (5-page limit)

Use the NIH Biographical Sketch Format Page here. This is required for the PI and all investigators named in the grant. (HINT: SciENcv is an online tool in My NCBI that creates bio sketches: more information here)

**6. RESOURCES AND ENVIRONMENT** (limit 1 page)

Describe the nature of the research environment (laboratory space, clinical population, etc.) If computer access or statistical support is available, it should be described in this section.

**7. BUDGET JUSTIFICATION** (limit 1 page)

Provide an itemized description of how funds will be allocated. Please use the NIH Form *Detailed Budget for Initial Budget Period* (Form Page 4) available here

**8. REFERENCES**

**9. APPENDICES** (limit 10 pages)

This section is not required, but may be used for additional letters of support, surveys/questionnaires/data collection forms, informed consent documents, previously published manuscripts of relevance (first page only), or any other materials the applicants deem relevant. Do not use the appendix to circumvent page limitations for research plans, including experimental methods, protocols or figures that should be incorporated within Section 3 above.

10. **SIGNED STATEMENT OF CONDITION**
See Below

Please submit all final application materials in a .PDF format to: awards@acmt.net and include 'Innovative Research, Teaching or Practice Grant' in the subject line.

**CHECKLIST FOR COMPLETION**

__ Information Page
__ Specific Aims Page
__ Research Proposal
__ Letter of Support (if applicable)
__ Bio-sketch(s)
__ Resources and Environment
__ Budget Justification
__ References
__ Appendices
__ Signed Statement of Condition (see below)

## STATEMENT OF CONDITIONS

It is understood that the Medical Toxicology Foundation (MTF) supports research under the following conditions:

1. Institutional overhead costs are not eligible

2. The principal investigator's institution is associated or organized for humanitarian purposes and is not a for-profit organization.

3. All reports of work achieved through this grant will acknowledge the support of the MTF and any co-sponsors, if applicable.

4. Any discovery that arises from work supported in part by the MTF will be submitted for publication.

5. Independent progress reports will be submitted by the applicant to the MTF Foundation mid-project, and within 90 days of completion of the funding period. Additional reports may be required.

6. Presentation of any funded work at the American College of Medical Toxicology Annual Scientific Meeting (ASM) to give a poster and/or oral presentation is required within one year of completion of this project.

7. If all requirements are met, funding will begin on July 1st. The MTF reserves the right to terminate payments under this grant at its sole discretion.

8. If the named principal investigator leaves the institution or terminates research in the designated field, all remaining funds revert to the MTF. If unused funds exist at the completion of the project, these too revert to the MTF.

9. Patent rights will conform to institutional standards. If none exist, the MTF reserves the right to protect such interests.

10. No research proposal will be funded unless the principal investigator and the Institutional Official of the sponsoring institution affirm:

    a. That the investigation(s) proposed in this application are endorsed by the Animal and/or Human Subjects Committee or other designated body of the preceptor's institution, and
    b. That any research involving human subjects conforms with the principles of the Helsinki Code of the World Medical Association, and
    c. Research involving animals or human subjects must be approved by the institutional review board (IRB), or its equivalent, and a copy of the approval or pending approval sent with this application. IRB approval must be documented prior to receipt of MTF funds.

d. That research involving vertebrate animals will conform with the "Guiding Principles in the Care and Use of Animals" as approved by the Council of the American Physiological Society.
e. Research involving vertebrate animals must have approval from the institutional Animal Care and Use Committee.

| | |
|---|---|
| _____ / | _____ |
| Date / Signature of Principal Investigator | Name of Principal Investigator |
| _____ / | _____ |
| Date / Signature of Senior Investigator (if applicable) | Name of Senior Investigator |
| _____ / | _____ |
| Date / Signature of Institutional Official | Name of Institutional Official |