

# 2023 Request for Proposals:

## *Misophonia Research Fund*

The [Misophonia Research Fund](#) (MRF) is dedicated to advancing a world where misophonia is scientifically understood and effective treatments are available to help anyone who is suffering. The MRF is a program of The REAM Foundation, a private, US-based family foundation established to help people reach their full potential through support for health and wellness, education, and arts initiatives. For its fifth cycle, the MRF is now accepting applications for research projects that seek to better understand misophonia, characterize symptomatology and associated impairments, and assess interventional strategies to treat those with the disorder.

### Description

The Misophonia Research Fund intends to award up to 10 misophonia research grants in 2023. Each grant will provide up to US\$250,000 in total funding per year for up to two (2) years for a maximum aggregate total of US\$500,000 to support research projects led by independent investigators at qualifying research-based institutions who hold doctoral-level degrees (e.g., Ph.D., M.D., Psy.D., Au.D.).

Postdoctoral applicants are also encouraged to apply to the Misophonia Research Fund. Postdoctoral researchers are eligible for a grant that will provide US\$100,000 in total funding per year for up to two (2) years for a maximum aggregate total of US\$200,000. These grants are intended to support postdoctoral researchers who will have earned their doctoral degree (e.g., Ph.D., M.D., Psy.D., Au.D.) by July 1, 2023, and are under the mentorship of a doctoral-level principal investigator at a qualifying research-based institution.

Letters of Intent (LOIs) are due on Friday, December 9, 2022.

[Misophonia](#) is a disorder of decreased tolerance to specific sounds or stimuli associated with such sounds. These stimuli, known as “triggers,” are experienced as unpleasant or distressing and tend to evoke strong negative emotional, physiological, and behavioral responses generally not experienced by other people. Trigger stimuli are often repetitive and primarily, but not exclusively, include stimuli generated by another individual, especially those produced by the human body (such as chewing or sniffing). The expression of misophonic symptoms varies, as does the severity, which ranges from mild to severe impairments.

Misophonia is under-studied and may be more common than previously realized, with some studies finding that as many as one in five individuals reports symptoms of misophonia.

For more information about misophonia, please visit the Misophonia Research Fund:

<https://misophoniaresearchfund.org/what-is-misophonia/>.

Projects that may be selected for funding should display a highly rigorous scientific design, present an innovative, interdisciplinary approach, and demonstrate strong potential impact to improve our understanding, characterization, and/or treatment of misophonia.

## Scientific Focus

In its fifth cycle of funding, the MRF requests proposals that address clear gaps in the field and/or that generate new knowledge about misophonia and build upon previous findings using demonstrably rigorous study methods.

The scientific focus of proposals shall address one or more of the following three prioritized focus areas in human, animal, or relevant research models. Proposals can focus on a specific area or may address several of the following areas:

1. **Characterization of misophonia.** Proposals may include a wide range of approaches to examine the following:
  - a. testable theories, basic animal models, and human translational models addressing why, how, and for whom misophonia develops;
  - b. underlying biological, behavioral, and/or environmental mechanisms (and their interactions) underlying the etiology, longitudinal development, maintenance, and/or treatment of misophonia;
  - c. expression and trajectory of symptoms, impairment, and related phenomena, including individual variability and trends within and between populations;
  - d. the use of multiple measurement methods (e.g., questionnaires, behavioral and physiological measurements) and the development of diagnostic criteria according to these measurements;
  - e. the epidemiology and prevalence of misophonia, as this may inform the scope and significance of misophonia as a public health problem;
  - f. individual differences in demographic factors, especially with underrepresented and marginalized populations; and
  - g. the influence of contextual factors on the development and expression of misophonia (e.g., family, friends, school, community).
  
2. **Development or validation of objective methods.** Proposals may develop or validate physiological and/or behavioral methods (i.e., objective assessments) to assess misophonia. With the 2022 publication of the [consensus definition of misophonia](#) (the full article describing consensus definition development can be found [here](#)), the MRF expects applicants to integrate the definition throughout proposals and

encourages applicants to apply, test, challenge, and/or modify the definition (with explanation) to contribute to the iterative understanding of misophonia and how it can be assessed and measured. Proposals should also aim to understand differences and overlap between misophonia and other sensory tolerance disorders (e.g., hyperacusis) and between misophonia and co-occurring mental health disorders (e.g., anxiety disorders).

3. **Clinical and/or animal model study of interventional approaches.** Proposals should use rigorous experimental methods to develop and/or evaluate the acceptability, feasibility, and efficacy of interventions for misophonia. Clinically-oriented proposals may collect pilot data to inform future, larger randomized controlled trials but must still include rigorously constructed control and experimental groups. Creative interventional approaches are encouraged, including:
  - a. early prevention and intervention,
  - b. multidisciplinary treatment models,
  - c. novel treatment approaches (e.g., pharmacotherapy, portable technology, digital health platforms, multimodal manual treatment strategies, augmented or virtual reality, gamification, etc.), and
  - d. controlled comparative efficacy trials of promising treatments.

## Prioritized Proposal Approaches

1. **Collaborative funding models.** Applicants are highly encouraged to leverage awarded funding in conjunction with additional funding entities, opportunities, or partnerships to achieve described outcomes. For instance, an applicant may leverage an existing US National Institutes of Health (NIH) R01 grant infrastructure to study misophonia in comparison to existing clinical groups within an established protocol. Should an applicant choose to pursue this funding approach, it should be clearly described within the proposed research plan. Proposals that leverage actively funded research in this way will be prioritized in proposal evaluation.
2. **Interdisciplinary teams.** Applicants are also highly encouraged to propose scientific approaches that integrate multiple disciplines and/or specialties relevant to misophonia (e.g., audiology, neuroscience, psychology) and utilize this funding to promote the development of interdisciplinary teams. Proposals will be prioritized in evaluation that feature co-investigators representing multiple areas of expertise; articulation of meaningful interdisciplinary synthesis and team engagement, including well-described analytical methods integrating results from all individual disciplines; and demonstration of high potential for team-based success.

## Eligibility Criteria

1. Each applicant organization must be a nonprofit academic or research institution, including domestic and non-US nonprofit organizations, domestic and non-US public/private academic universities or institutions of higher learning (including colleges, universities, medical schools, and other related academic research institutions); certain qualified governmental agencies with active biomedical research programs may also apply.
2. All proposed research projects must be led by a Principal Investigator (PI) who holds a doctorate (e.g., Ph.D., M.D., Psy.D., Au.D.) or related research doctoral degree. PIs must be either an independent

investigator or a postdoctoral fellow. PIs must be selected by and identified by the applicant organization.

3. Institutions can submit more than one proposal, but each proposal must be led by a unique PI.
4. For purposes of this Request for Proposals (RFP), a “postdoctoral fellow” is an individual whose doctoral degree (Ph.D., M.D., Psy.D., Au.D., or an equivalent degree) is conferred by July 1, 2023, and who is engaged in a temporary period of mentored research for the purpose of acquiring the professional skills needed to pursue a career path of their choosing. Applicant organizations applying for projects led by postdoctoral fellows may not request more than US\$100,000 per year in project costs for up to two (2) years, for a maximum, aggregate amount of US\$200,000 over the time period.

## Letter of Intent and Application Requirements

All completed LOIs and applications shall be submitted through the Misophonia Research Fund's online grant portal (see below). Below is a list of required components for an application to be considered complete. **Applications shall be single-spaced and formatted in Calibri 11-point font with one-inch margins, except where provided templates apply.**

All applicant organizations shall first submit an LOI, which will be reviewed by the Misophonia Research Fund. Selected organizations that propose relevant projects will then be invited to submit a full application, as outlined below.

1. **Letter of Intent.** The LOI is a one-page letter briefly stating intent to apply for a grant, project title, and project aims.
  - a. LOIs are due Friday, December 9, 2022.
  - b. LOIs must include:
    - i. the applicant organization's legal name;
    - ii. PI name(s), degree, position, and contact information;
    - iii. an authorized institutional contact; and
    - iv. the organization's tax ID number (for US), registered charity number, or non-US country's equivalent.
  - c. LOIs must be submitted via the Misophonia Research Fund's online grants portal, accessible via this link: <https://tinyurl.com/MisophoniaLOI>. Click on the “New Applicant?” link (below the email text box) to create a new account. If you save and exit the LOI form, click on the following link to return to your LOI that is already in progress: <http://tinyurl.com/continueapplication>.
  - d. The applicant organization will be notified by email within approximately four (4) weeks of the LOI submission deadline as to whether or not they will be invited to submit a formal proposal.

- 2. Proposal.** A formal proposal outlining the intended project should be no more than twelve (12) pages in length and should contain the following (MRF will omit from review any pages in excess of the limit):
- a. **Cover page** including:
    - i. project title (a short title identifying the project and its intended area of focus);
    - ii. the PI's name and Co-I's names, if applicable, and the applicant organization's name; and
    - iii. technical abstract.
  - b. **Aims and milestones** to summarize what the project aims to accomplish and the major milestones the PI anticipates the project will complete in the process of meeting said project aims. Major milestones should include estimated timeframe of completion. One (1) page or less.
  - c. **Scientific approach** to outline the research methodology the PI intends to use in pursuit of the project, in addition to defining and justifying key project outcome measures. Six (6) pages or less.
    - i. Describe the central scientific question that the project seeks to address.
    - ii. Proposals for clinical, basic human, or animal studies must include clear descriptions of control and experimental groups and an analytical plan that provides statistical justification for the proposed experimental sample sizes (i.e., power analysis or another appropriate method). Proposals must include a brief protocol synopsis with validated methodologies and a timeline with key project milestones.
      1. Proposals featuring clinical control groups (e.g., hyperacusis or anxiety disorders) and/or sample sizes exceeding the minimum necessary to detect statistical significance will be prioritized in proposal evaluation.
      2. Analytical plans from multidisciplinary teams should include plans for measurements in each discipline and describe how these measurements will be integrated to inform the study conclusions.
    - iii. As noted below, IRB (for human studies) or IACUC (for animal studies) approval will be required before initial payments are made for any project that the Misophonia Research Fund, in its sole discretion, selects for funding.
    - iv. Studies of human participants should cover inclusion and exclusion criteria used to distinguish misophonia from other similar conditions, as well as accompanying assessments used to characterize and assess the severity of misophonia or similar conditions.
    - v. All studies should have an audiological assessment of study participants consisting of a comprehensive audiological evaluation battery. The audiological data resulting from such an evaluation should be considered a research variable and be integrated into the study's data analysis plan.
    - vi. Studies of human participants must specify a feasible recruitment plan to enroll participants of diverse backgrounds, including age, race, sex, ethnicity, geography, physical capabilities, mental health conditions (including those that may be co-morbid with misophonia), and other sensory tolerance disorders (e.g., hyperacusis). These considerations should be applied to experimental and control populations. If

studying a specific population, please describe how other aspects of diversity will be maintained in the sample.

1. Clinical studies of an interventional strategy should discuss how participants will be selected, participant diversity, necessary sample size, control populations, and how efficacy of the intervention will be assessed.
  - vii. Note any intellectual property considerations that the proposed research may entail.
  - viii. Applicants should include a brief description of any alternative protocols they will implement should local conditions prevent research from proceeding as planned, inclusive of a timeline and feasibility plan.
  - ix. Applicants should frame their proposals within the context of prior research on misophonia, either theirs or others, including the misophonia consensus definition.
    1. Applicants that have previously engaged in misophonia research and/or have been previously funded by the MRF should discuss how the proposed research will extend or build upon their prior MRF-funded misophonia research.
  - x. Applicants should describe how results from this proposed work may be leveraged to obtain follow-on funding to continue building the knowledge base of misophonia. For example, applicants should specify how results from this proposed work will be used to align with funding priorities from relevant governmental funding entities or other funding entities with the capacity to support additional studies that replicate and/or extend and expand upon the results of MRF-funded research.
- d. **Impact statement** to demonstrate how the proposed research represents a novel/ innovative approach that will impact the field in both the near- and long-term. This statement should reflect deep thought and consideration regarding study design that demonstrably impacts the field and advances our understanding of misophonia beyond prior research. This statement should address how the study's findings would be significant even in the absence of supportive or positive results and how all results will advance our understanding of misophonia. One (1) page or less.
- e. **Data sharing plan** to specify the applicant organization's commitment to, and plan for, openly sharing project results to advance the understanding of misophonia, maximize scientific impact, and help anyone suffering from misophonia. Upload of study results to preprint servers and dissemination via open-access publication is required. Data sharing plans should describe how data resulting from the proposal (de-identified, where applicable) will be made available to other institutions and researchers for non-commercial use and how knowledge generated by the proposed research will be made available to the general public. One (1) page or less.
- i. This plan should include the particular data repository to which the applicant intends to upload and share such project results and data, as well as policies and procedures for ensuring that the applicant organization's PI and all other applicable employees and contractors will comply with and adhere to such a plan. Proposals demonstrating intentional planning for the effective and impactful dissemination of research results will be prioritized in proposal evaluation.

- f. **Team capabilities statement** to outline the research group's ability to address the research question, support the research, and recruit and manage study participants, if applicable; PI's and Co-I's, if applicable, individual effort devoted to the project; and identification of any key personnel in addition to the PI(s). One (1) page or less.
  - i. This should include relevant experience in misophonia research or expertise with misophonia, audiology, and expertise in biostatistics or appropriate statistical methodologies.
  - ii. Proposals featuring co-investigators representing multiple areas of expertise, articulation of meaningful interdisciplinary synthesis and team engagement, and demonstration of high potential for team-based success will be prioritized in proposal evaluation.
- g. **References cited.** One (1) page or less.

3. **Additional documentation within the online form shall include:**

- a. **Information about the applicant organization** and the lead investigator it has selected, including contact information for the lead investigator and the authorized representative of the applicant organization that will receive the grant correspondence and funds.
- b. **Lay project summary** to succinctly describe the project's aims, goals, any previous accomplishments, and how it will benefit the scientific field investigating misophonia. One (1) page or less.
- c. **Budget and justification** to provide a detailed budget in USD with a narrative summary and justification for each item, including how the PI intends to spend their time on the project. Up to two (2) pages in length using the provided template and one (1) page in length providing narrative justification of budget items. Save the budget and justification into one single PDF document for proposal submission.
  - i. The maximum allowable budget is inclusive of indirect expenses.
  - ii. Acceptable expenditures will include salary, equipment, graduate student tuition for students fully dedicated to research, software, patient recruitment, fringe benefits, percent effort for hired personnel, project-related and/or conference travel, publication costs to ensure that results are open access, and up to 15 percent in indirect expenses to support institutional infrastructure.
  - iii. If more than one institution will be involved in the project, one shall be proposed as the applicant organization and the other included as a sub-grantee. When a proposal includes a sub-grantee, the maximum allowable indirect rate across both grantee and sub-grantee remains 15 percent of the total award budget.
  - iv. **For non-US applicants:** Please note grants will be made in USD, and the Misophonia Research Fund is not responsible for changes in conversion rates. Grants selected for funding will be made payable to the applicant organization. Under no circumstances will funding be paid to, or earmarked for, any individual.
- d. **Listed PI's biosketch** (including Co-I's, if applicable, and/or mentor's for post-doctoral fellows) from the [NIH template](#). Five (5) pages or less using the NIH template (all pages over the limit will be omitted).

- e. **Institution letter of commitment** stating that applicant organization will be able to support the research led by the PI.
4. **Non-US-based governmental organizations** must provide:
  - a. A list of voting board members and officers, as well as the name of the organization's highest-ranking staff member (e.g., Chief Executive Officer).
  - b. Additional organization governing documents and other documentation via a secondary questionnaire following your proposal submission. MRF will make this request during proposal review. For more information, please visit <https://www.ngosource.org/how-an-ed-works>.
  - c. Any correspondence from the IRS confirming the organization's tax status, if applicable.
5. **US-based governmental organizations (excluding academic/research institutions that are public charities)** must provide:
  - a. A full copy of the enabling statute that authorized the organization's creation.
  - b. A copy of the organization's governing documents (such as articles of organization or constitution and bylaws), if applicable.
  - c. Any correspondence from the IRS confirming the organization's tax status, if applicable.
6. **Applicant organizations submitting grant requests for projects to be led by postdoctoral fellows** must also submit the following regarding the selected postdoctoral fellows:
  - a. Research training information outlining the training or individual development plan and the working environment. One (1) page or less.
  - b. Mentor/sponsor letter of support.
  - c. Two (2) letters of recommendation in addition to the mentor/sponsor letter of support.
  - d. Letter from the department chair specifying that the fellow will have been awarded their doctoral degree by July 1, 2023, and will be engaged in a temporary period of mentored research for the purpose of acquiring the professional skills needed to pursue a career path of their choosing.

The Misophonia Research Fund shall strictly enforce formatting and length. Any submissions that exceed the page limit or do not follow the requirements above shall not be considered for review.



## Proposal Review

The Misophonia Research Fund will seek independent expert review for each application. All applications will be reviewed based on the following domains:

1. **Scientific and technical merit:** the quality of the scientific rationale and the use of resources, equipment, and experimental designs to rigorously evaluate the central scientific question or test the stated hypothesis/hypotheses. Experimental design is highly rigorous, and the study is appropriately statistically powered to produce meaningful findings even in the absence of supportive or positive results.
2. **Significance and potential impact:** the success of this proposed research would be significant in furthering our understanding of the nature, features, and/or, treatment specific to misophonia. This includes evidence of near-term impact and/or how results will permit conclusions that are specific to misophonia but that may also be leveraged to impact the broader research ecosystem in some way.
3. **Innovation:** a proposal's ability to bring new ideas, knowledge, or perspectives to the misophonia field and develop unique avenues to understand, characterize, and/or treat misophonia. This includes evidence of interdisciplinary collaboration by the research group, as well as how this collaboration will positively impact and/or accelerate misophonia research.
4. **Team capabilities and competencies:** the research group's ability to address the research question, support the research, and recruit and manage study participants in a feasible way. Demonstrated expertise or evidence of skills should include biostatistics, audiology, and other specialties relevant to misophonia.
5. **Cost realism:** a realistic budget that adequately supports personnel, equipment, overhead, open-access publishing costs, and other needs to successfully carry out the project.

## Key Dates and Timeline

1. **Friday, December 9, 2022:** Letters of Intent (LOI) due via online grants portal by 11:59 p.m. Central Time.
2. **Friday, January 6, 2023:** Applicant organizations whose LOIs are selected to move to the next stage will be invited to submit full proposals.
3. **Friday, March 10, 2023:** Invited applicant organizations shall submit their full proposals via the online grants portal by 11:59 p.m. Central Time.
4. **August 2023:** MRF will notify applicant organizations of funding decisions.
5. **October 2023:** Grant period begins. Grantees complete administrative tasks and IRB approval process.

## Grant Terms

Each funded organization will be required to co-sign and agree in writing to the Misophonia Research Fund's grant terms within thirty (30) days from receipt of notice of the award and prior to funds being released. The Misophonia Research Fund's grant terms include the following:

1. Signature confirming that the information provided in the grant proposal is true, complete, and

accurate. False or fraudulent statements may subject the funded organization to criminal, civil, or administrative penalties.

2. Any substantial changes to the project, including activities, budget, grant period, or PI, require written approval from the Misophonia Research Fund before proceeding with such activities, spending, or committing any remaining funds from the grant.
  - a. Any funds not expended or committed for the purposes of the grant must be returned to the Misophonia Research Fund unless otherwise agreed by the Misophonia Research Fund in writing.
  - b. If a funded organization proposes to supplement any funds provided by the Misophonia Research Fund with funds provided by a third party, the organization must first provide notice to the Misophonia Research Fund and must ensure that the funding terms associated with any such third-party funds do not preclude sharing of data or publication of project results as contemplated in this RFP.
3. The funded organization must be able to receive awarded funds and allocate them exclusively toward the funded misophonia research project.
4. Funded organizations must agree to, and timely deliver on, the following reporting requirements in order to receive funding from the Misophonia Research Fund:
  - a. Annual submission of full written narrative and financial reports following the initial award payment, which shall, among other things, include a signed statement by an authorized representative of the funded organization and its PI confirming that the funded organization, the PI, and any other applicable employees or contractors who have worked on the project during the reporting period have submitted information that is true, complete, and accurate and have adhered to the Data Sharing Plan set forth in the proposal.
  - b. Mid-year submission of brief written updates describing major project highlights.
5. **IRB (for human studies) and/or IACUC (for animal studies) approval is required before initial payments are made.** Evidence of protocol submission within six (6) weeks of grant funding notification may be requested. IRB approval must be maintained for the duration of the granting period.
6. The organization will require its designated PI to attend annual funded investigator scientific convenings held by the Misophonia Research Fund during the funded grant period and will instruct its designated PI to share progress on the work funded by the Misophonia Research Fund. Expenses for attending these meetings will be covered under a separate budget by the Misophonia Research Fund.
7. It is a condition of any funding provided by the Misophonia Research Fund that the investigator publicly release the results of the funded project, such as on a pre-print server, within twelve (12) months after the completion of the project. Furthermore, funded investigators should seek to have the results of the funded project published open access in a peer-reviewed journal within eighteen (18) months after the completion of the project. Each publication would acknowledge the Misophonia Research Fund's role in supporting the project, in a form approved by the Misophonia Research Fund. If the investigator does not publish the results within the abovementioned timeframe, the Misophonia Research Fund would have the right to make such results public.

## Data and Intellectual Property

Each funded organization would own the rights in all intellectual property developed by or on behalf of that organization under the Misophonia Research Fund funding, in accordance with such organization's applicable intellectual property policies. The Misophonia Research Fund would have the right to use and to practice all such intellectual property for internal, non-commercial research purposes, and would also have the right to publicly disclose research results in press releases, announcements, and otherwise (subject to the funded organization's advance approval if any such public disclosure will occur prior to publication of the applicable results).

Each funded organization must agree to share projects results, data (de-identified, where applicable), reagents, and other research tools developed under the Misophonia Research Fund funding with other researchers for non-commercial use to advance the understanding of misophonia and to maximize scientific and patient impact. Sharing of data and project results will be carried out in accordance with the approved Data Sharing Plan (as specified in the organization's project proposal).

## Funding Awarded in the Misophonia Research Fund's Discretion

Responding to this RFP, submitting an LOI and/or submitting a full proposal does not entitle any individual or institution to receive funding from the Misophonia Research Fund. Funding, if any, would be provided in the Misophonia Research Fund's sole discretion pursuant to the terms of a written grant agreement executed by the Misophonia Research Fund and the selected grantee organization, the terms of which the Misophonia Research Fund may require to be acknowledged by the PI.

## Contact Information

For all inquiries about the online process or documentation needed, please contact:  
[info@REAMFoundation.org](mailto:info@REAMFoundation.org).

For clarification about scientific priorities or eligibility requirements, please contact:  
[misophonia@milkeninstitute.org](mailto:misophonia@milkeninstitute.org).

An automated email confirmation is generated upon submission of the LOI or application. If you do not receive a confirmation within 24 hours of submitting your application, please check spam filters and then contact [info@REAMFoundation.org](mailto:info@REAMFoundation.org).