

## 2025 BSF RESEARCH GRANT PROGRAM APPLICATION GUIDELINES AND REQUIREMENTS

Barth Syndrome Foundation, Inc. (BSF) and our [International Affiliates](#) welcome innovative applications that address the basic, translational, and clinical research challenges of Barth syndrome. Through this program, BSF seeks to provide seed grant funding to young and established investigators in order to generate the preliminary data required for successful follow-on funding available from major grant-making institutions such as the National Institutes of Health (NIH).

### Key Dates

- Full Applications - **Due Friday, November 1, 2024**
- Grantees Announced and Earliest Award Start Date – as early as **March 2025**, pending review availability by the BSF Scientific and Medical Advisory Board and Board of Directors

### Application

New this year, applicants will submit their grant applications through the BSF [Apply Portal](#). Rather than emailing a PDF or Word document of all sections to BSF, all information will either be inputted or uploaded through the Apply website. Any questions or issues with applying through this portal can be directed to BSF's research team: Lindsay Marjoram, PhD ([Lindsay.marjoram@barthsyndrome.org](mailto:Lindsay.marjoram@barthsyndrome.org)) or Melissa Huang, PhD ([melissa.huang@barthsyndrome.org](mailto:melissa.huang@barthsyndrome.org)).

- Up to \$100,000 USD maximum Total Cost may be requested for 1-3 years in duration. Applications eligible for this funding mechanism include basic research, discovery science, and early clinical studies related to Barth syndrome. Ideally applications will include some preliminary data though it is not a formal requirement.

### Key Considerations

- There are no geographical limitations to this funding program.
- Applicants must be independent investigators (e.g., with faculty appointment); pre- and postdoctoral fellows cannot apply. For predoctoral and postdoctoral candidates, applications to the [American Heart Association](#) may be entitled to co-support from BSF.
- Young/non-tenured Investigators are allowed to budget up 75% of the total grant amount as PI salary.
- The budget outlays for clinically-oriented research applications that involve research participant travel will be handled separately and are excluded from the aforementioned budget maximums, as they are an expense that is not directly pertinent towards evaluating the scientific merit of an application.

- Letters of Support from collaborators are encouraged, but not required, components of Full Applications.
- Total Cost is composed of Indirect and Direct Cost, with Indirect Cost limited to 10% of Direct Cost

## Evaluation Criteria

1. Importance and impact – the extent to which the research outlined could make a significant contribution to the understanding of Barth syndrome or the treatment of the disorder
2. Feasibility – the qualifications of the investigator(s) to carry out the proposed work based on expertise, experience, and commitment; as well as the availability of all the elements required for the project (such as technology, reagents, and human subjects)
3. Prospect of Long-term Funding – the likelihood of subsequent NIH or other major funding for any potential follow-on work

Notification of BSF Board of Directors' decision regarding whether to award the grant application will be sent by e-mail as early as March 2025, pending Board of Directors' availability for review. We request no inquiries until then. All decisions are made by the BSF Board of Directors and are final.

**Full Application Information and Page Limits (if applicable) by Section.**

<b>Section</b>	<b>Page/Word Limit</b>
Personal Information	N/A
Institutional Information	N/A
Grant Application Title & Abstracts	See word limits below
Specific Aims	1 page
Research Strategy	6 pages
References	No limit
Plans for Long-Term Funding	500 words
NIH-Style Biographical Sketch	5 pages/PI
Budget Table & Justification [For clinically-oriented applications include separate travel expenses]	4 pages
External Reviewers to Include	N/A
Reviewers to Exclude	N/A
Statement of human subject or vertebrate animal use	See word limits below
Resources and Environment	750 words
Project Personnel	N/A
Letters of Support	N/A
Signature Page	N/A

**Full Application Format.** For the Specific Aims, Research Strategy and References, please follow the R21 format of the NIH as is practical:

- Use standard letter paper size (8 ½" x 11").
- Provide at least one-half inch margins (top, bottom, left, and right) for all pages. No applicant-supplied information can appear in the margins.
- Font size must be 11 points or larger. Smaller text in figures, graphs, diagrams and charts is acceptable, if legible when the page is viewed at 100%.
- Type density: Must be no more than 15 characters per linear inch (including characters and spaces).
- Line spacing: Must be no more than six lines per vertical inch.

## Full Application Sections

Each full application *must* contain the following elements to be considered complete. Incomplete applications will not be considered for review.

### Personal Information

In this section, you will be asked for basic information including your institutional affiliation and demographics. Responses to the demographic questions are used to help understand diversity, equity and inclusion and do not have a bearing on the decision-making process. You have the option to select “Prefer not to say” if you do not wish to answer those questions.

### Institutional Information

In this section, you will be asked to provide contact information for your department head, institutional officer and fiscal official.

### Grant Application Title & Abstracts

*Grant Title (30 words):* Please provide a succinct but informative grant title. If awarded, this title will be listed publicly on our website.

*Scientific Abstract (500 words):* The scientific abstract summarizes the project, including a statement of what issue(s) the project addresses, a description of why the work is important to either the furthering of knowledge about Barth syndrome or the treatment of individuals with the disorder, and a description of how the project will be accomplished. (Note: this abstract will be used for BSF publicity and external reviewer engagement).

*Relevance to Barth syndrome (500 words):* Explain how this project will advance the natural history, expand the etiology, augment understanding of the pathophysiology, identify disease modifiers, or develop a potential therapeutic treatment for Barth syndrome.

*Non-scientist Summary (500 words):* Please describe your work to an audience without scientific or medical training. Avoid the use of jargon or technical terms, with a target audience having an 8th grade level of comprehension. Describe the major problem that your research will address, the specific questions you will use to answer this problem, and the experiments designed to answer the questions asked. Finally, please describe the anticipated outcome and potential impact this work may have. (**Note:** This summary will be used for BSF publicity and with the larger BSF community).

*Grant Key Words:* In this section, please select the top 5 key words that most relate to your grant topic. This will assist in reviewer selection.

### Specific Aims (1 page)

State concisely the goals of the proposed research and summarize the expected outcome(s), including the impact that the results of the proposed research will have on Barth syndrome research. List succinctly the specific objectives of the research proposed (e.g., to test a stated hypothesis, create a novel design, solve a specific

problem, challenge an existing paradigm or clinical practice, address a critical barrier to progress in the field, or develop novel technology). Inclusion of a graphical summary of your specific aims is encouraged but not required. The Specific Aims page will then be uploaded as a PDF or Microsoft Word document in the grant portal.

### Research Strategy (6 pages)

A discussion of the background and significance of the work proposed, including a critical evaluation of previous research and existing knowledge, specifically identifying the gaps that the project intends to fill, and explicitly stating the importance of the proposed research. A thorough summary of research design and methods, describing the experimental design and methods that will be used to accomplish the specific aims. Include how the data will be collected, analyzed and interpreted. Present any preliminary data and/or findings. Describe any new methodology and its advantage over existing techniques. Discuss any potential difficulties and limitations of the proposed procedures and suggest alternative approaches that could be used to achieve the project's aims. Include a timetable for the project. The Research Strategy will be uploaded as a PDF or Microsoft Word document in the grant portal.

### References (no page limit)

Standard citations of publications referred to in the application. The References section will be uploaded as a PDF or Microsoft Word document in the grant portal.

### Plans for longer-term funding (500 words)

Assuming a positive outcome for your project, discuss your plans for obtaining subsequent funding from the NIH or other major funding organizations.

### Biographical sketch (5 pages/PI).

Please use the format [specified by NIH](#).

### Budget Table & Justification (4 pages)

Please use the [downloadable Budget template](#). Fill in the budget table and provide a detailed budget narrative section for the proposed project which fully describes and justifies the expenses listed. Based on this budget, grant funds will be disbursed by BSF semi-annually. The start of the fiscal year for the grant will be the date the first check is issued. Unless specifically stated otherwise, it will be assumed that one-half of the first-year funds will be disbursed (and spent) in each of the two six-month periods comprising the first fiscal year for that grant. (If you would like to request disbursement at a different rate, then a separate budget form for each six-month period must be completed.) For clinically-oriented applications, attach a separate travel expense budget that allows for research participants to travel and stay at your clinical research site (see Clinically-oriented applications below). The Budget Justification will be uploaded as a PDF or Microsoft Word document in the grant portal.

*Total Cost:* Funding requests may be as much as **\$100,000 USD in total** (direct + indirect costs). All budgets will be scrutinized for allowable costs (see "*Disallowed*

*budget items*” below). Applicants should only consider budget item requests that are necessary for the completion of the project. The funds will be payable over 1-3 years.

*Indirect costs:* Indirect costs are limited to 10% of the direct costs.

*Budget Categories:* In the interest of having a fair competition of ideas, there will be two budget categories when considering the Salary and Benefits expenses for the PI—the “Young Investigator” category and the “Established Investigator” category.

- “Young Investigator” category (e.g. when the applicant is non-tenured, assistant professor, adjunct employee, etc.) the Salary and Benefits of the PI can be budgeted to up to 75% of the direct costs.
- “Established Investigator” (i.e. associate professor and higher, permanent employee), no more than 10% of the direct costs may be budgeted as Salary and Benefits for the PI. The “Established Investigator” category may include the Salary and Benefits of other project personnel such as post-doctoral students, graduate students, laboratory technicians, etc. However, in all cases the subtotal of the Salary and Benefits category of the budget cannot exceed 75% of the direct costs.

The categorization of “Young Investigator” or “Established Investigator” is only for budgetary purposes—all applications within each BSF Research Grant cycle are competitively evaluated with all other applications in that cycle. Applications are evaluated based on individual scientific merit.

*Clinically-oriented applications:* Applications that propose the testing or treatment of Barth syndrome individuals often have significant budget outlays for the travel of research participants to certain clinical research sites—an expense that is not directly pertinent towards evaluating the scientific merit of the application. For this reason, any application which includes the travel of research participants to specific clinical research sites may submit a separate budget sheet that provides the details of these travel expenses (include transportation, room, and board).

This “Travel Expenses Budget” for research participants will not be part of the total budget limitations, and these expenses will not be used in evaluating the merit of the application. However, the total of these “travel expenses” cannot exceed \$25,000 for the grant. BSF may fund these travel expenses directly or it may develop alternative arrangements with the grant recipient to accomplish the same task. Applicants submitting this type of clinically-related projects should include a separate Travel Expenses Budget sheet detailing these expenses.

*No Cost Extensions:* Requests for no-cost extensions (NCE) of existing approved grants are requested via email and submitted to BSF’s Research Staff 30 days before the next scheduled payment of funds. Generally approved, the PI and BSF’s Research Staff will correspond to determine the duration of the requested NCE.



*Disallowed budget items:* The following items are not allowable in the budget for the BSF Research Grant Program: travel expenses of the PI or colleagues to conferences or meetings, publication fees, and personal expenses. Capital expenditures for laboratory equipment are not allowed.

### External reviewers to include

Applicants should provide a suggested list of 3 external reviewers of your application who **are not part of the BSF Scientific and Medical Advisory Board**.

### Reviewers to exclude

Applicants should also note any potential reviewers (external or internal to BSF) whom you wish to exclude from the evaluation process.

### Statement of human subject and/or vertebrate animal use (500 words each).

This section will prompt you to answer whether your proposed research will involve the use of vertebrate animals or human subjects. To determine whether your research involves human subjects, this [NIH tool](#) can be useful. If the project will include either or both, then additional documentation will be required by BSF.

- Regulations require that all institutions maintain appropriate policies and procedures for the protection of human subjects. If applicable, please provide a copy of the informed consent form for any human subjects for the proposed project as well as proof of current or pending approval by an Institutional Review Board (IRB) (or a similar oversight group). (**NOTE:** Funding for the project, if the application is approved, will not be released by BSF until the final IRB approval has been secured and a copy, including the approved informed consent form, has been received by BSF.)
- In keeping with BSF policy, all proposals must conform to regulations for the safe and humane treatment of animals. If applicable, please provide proof of current or pending project approval by the Institution's Animal Care and Use Committee (IACUC; or a similar oversight group). (**NOTE:** Funding for the project, if the application is approved, will not be released by BSF until the final IACUC approval has been secured and a copy has been received by BSF.) (See Addendum A for a general statement from BSF)

### Resources and Environment (750 words)

In the space allotted, please provide a description of the resources and environment available for the project. This should include facilities, laboratory space and major equipment that are pertinent to the project. Also describe any procedures, materials or situations that may be hazardous to personnel and the planned precautions to be exercised.

### Project Personnel (up to 8 key personnel, including project PI).

A list of project personnel (name, title, institution, and role on the project), including the percentage effort that each person is expected to devote to the project.

## Final Considerations

- Only proposals written in English can be considered.
- Incomplete applications will not be accepted.
- Resubmission of an application from a previous year will not be accepted unless the new application is substantially changed in the opinion of BSF's Research Staff.
- Applications are considered confidential information by BSF and by any external reviewers.
- An electronic version of the full application (PDF preferred) and any attachments must be submitted through the [SM Apply portal](#) by **Friday November 1<sup>st</sup>, 2024**.
- Acknowledgement of BSF's receipt of the grant application will be sent by e-mail to the principal investigator within 7 days of the receipt of the application.
- Grant applications will be reviewed by the BSF Scientific and Medical Advisory Board (and selected outside reviewers), and recommendations will be forwarded to BSF Board of Directors for their decision to fund or not to fund.

*For any questions on the grant application process, please contact Lindsay Marjoram, PhD ([Lindsay.marjoram@barthsyndrome.org](mailto:Lindsay.marjoram@barthsyndrome.org)) or Melissa Huang, PhD ([melissa.huang@barthsyndrome.org](mailto:melissa.huang@barthsyndrome.org))*