



## **Request for Applications 2023**

### **Why Autism**

The Center for Disease Control estimates that 1 in 36 children are on the autism spectrum, making it the fastest growing developmental disorder. For the Eagles owner and CEO, Jeffrey Lurie, it is personal. With autism in his own family, Lurie knows his is just one of many families dealing with this condition and is committed to funding breakthroughs in research and cutting-edge programs.

### **Mission**

The Eagles Autism Foundation is dedicated to raising funds for innovative research and programs to help individuals with autism. By providing the necessary resources to clinicians and scientists at leading institutions, we will be able to assist those currently affected by autism as well as future generations. Our Challenge event aims to inspire and engage the community, so together, we can provide much needed support to make a lasting impact on the field of autism.

### **Introduction**

The Eagles Autism Foundation (EAF) invites investigators to apply for support of basic and clinical research of autism spectrum disorders, studying affected individuals and families and/or diverse model systems. As the Foundation continues to grow, year to year the opportunities and requirements for funding will evolve. This year's funding will support 2-year Pilot Grants (world wide) and 2 Year Postdoctoral Fellowship (limited to Philadelphia, focused on basic science). Post-doctoral fellowships are limited to Philadelphia in order to empower the next generation of scientists in our own city. Each applicant may serve as Principle Investigator of only a single application for competitive review by a panel of field experts. No one that is currently being funding from Eagles Autism Foundation can apply for this round of 2023 funding.

The mission of the EAF is to support the highest quality and most impactful autism research that will improve the lives of affected individuals and families now as well as foster the acquisition of knowledge, technologies, and discoveries that will bring new opportunities in the future. The EAF supports all areas of basic and clinical research including but not limited to human development and behavior (social interaction, motor and repetitive behaviors, cognition), genetics, biomarkers, pharmacological therapies, neuropathology, microbiomes and related metabolites, structural and functional human brain imaging, neurophysiology, neurobiology, cellular, biochemical, and molecular mechanisms, translational research, stem cell technologies, and model organisms. Within the basic research domain, preference will be given to mechanistic studies over descriptive or correlational approaches. There is particular interest in research that focuses on microbiomes, gene x environment interactions, human iPSCs-NPCs, sleep disorders, mechanisms underlying sex differences in prevalence and advanced imaging and analysis of model system circuit structure and function.

Those who apply will show substantial published or preliminary data signifying that a well-established scientific premise supports the proposed study.

### **Awards**

EAF will make awards determined by the quality of the submitted proposals and the available financial resources, which this year is from a pool of 6 million. This year there will be (2) types of awards, each of two years duration. We will support Pilot Grants of 2 years duration. Pilot Grants will be at the level of \$200,000/yr for 2 years (\$400,000 total). Post-doctoral Fellowships (limited to Philadelphia) will support salary (may include fringe benefits; no indirect costs) at the level of \$75,000/yr for 2 years (\$150,000 total). There will be the option of a one-time No Cost Extension of up to one year. An amount not to exceed 15% of the Grant may be used for the Institution's indirect costs. While the final decision will depend on the number and quality of submissions, it is the intent of the EAF to distribute pilot grant research funds as approximately 20% clinical and 80% basic research. Post-Doctoral fellowships will be open to basic and clinical science.

### **Eligibility**

Pilot Grant applicants must have a PhD, MD, or equivalent degree, and have a full-time tenured or tenure-track faculty appointment or equivalent full-time non-tenure track appointment at an accredited academic, medical, or research institution. The research proposals may include resources and personnel from their affiliated organizations and service providers as long as the PI maintains final experimental control and responsible research authority. There is no geographical limitation on the location of applicant organizations for Pilot Grants.

For Postdoctoral Fellows, the applicant must have completed their doctoral or medical degree and have been accepted as a Postdoctoral Fellow in a laboratory or program in an academic department of an accredited university or health/medical institution in the City of Philadelphia as of the award start date. The Postdoctoral Mentor must have a PhD, MD, or equivalent degree, and have a full-time tenured or tenure-track faculty appointment or equivalent full-time nontenure track appointment at an accredited academic, medical, or research institution. The Postdoctoral Mentor must be an active investigator with a productive research program in some aspect relevant to autism. A Postdoctoral Mentor may sponsor only a single applicant, and may not submit in parallel a Pilot Grant application. Postdoctoral fellowship applications are open to basic and clinical science.

### **Instructions for Submission of LOI**

Investigators applying for the Pilot Grant will submit a Letter of Intent (LOI) that will serve as the basis for subsequent selection of applicants to submit a full application. The LOI will be due by August 25, 2023 and the EAF will make application invitations by September 8, 2023. The LOI will also serve the EAF in constituting the Scientific Advisory Board. The LOI document will not be included in the review process of the full proposal. Please unblock and permit, "no-reply@email.zenginehq.com" from your firewall to ensure you receive all notifications from the grant platform.

### **Text Requirements**

Proposals will be written in Arial font size 11 or greater, on pages with margins of 0.5 inches or greater, with single-spaced text. The PI name should appear in the header of each page. Figure and Table legends may be of smaller font size. Use of smaller or more difficult to read fonts will result in the application being returned without review.

### **Deadlines and Projected Schedule**

Release of RFA: June 29, 2023

Letter of Intent (LOI): August 25, 2023

Notification of full proposal invitation: September 8, 2023

Full Application Submission due date: October 16, 2023

Projected Proposal Review: December 2023

Projected Notification of Award: January 2024

### **Letter of Intent (LOI)**

The LOI will be limited to two (2) pages including any figures, tables, and references and should include:

Proposal Title/Type of Proposal: Pilot Grant or Postdoctoral Fellowship  
Names, titles, affiliations, and contacts of PI and key collaborators  
Research Project description that includes the scientific question/premise and its significance/relevance, specific aims, experimental approach and published and/or preliminary results, expected outcomes and timeline, and potential impact on current individuals or future opportunities. The brevity of the LOI precludes significant referencing.

It should be noted that the LOI will not be used in the review process for invited full proposal submissions. Invited proposals in turn should be consistent with the original LOI.

The LOI should be submitted to the Eagles Autism Foundation as a single PDF via the link: <https://www.eaglesautismchallenge.org/funding-2023/> by midnight August 25, 2023. **Please unblock and permit, "no-reply@email.zenginehq.com" from your firewall to ensure you receive all notifications from the grant platform.**

### **Proposal Format for Pilot Grant**

The Proposals submitted in response to invitation will include these items in the following order:

Cover Page: Title of the Proposal; Type of Proposal: Pilot Grant or Postdoctoral Fellowship; Term of the proposal; Name, title, affiliation, and contact of PI; Institution and Department/Unit of the applicant; Name and contact of the Financial Officer and/or Signing Official; whether research is Human or Animal, and whether IRB or IACUC is Approved or Pending

Abstract: The abstract should be intelligible to a knowledgeable lay person or non-expert and must describe the scientific question/premise and its significance/relevance, specific aims, experimental approach, expected outcomes and timeline, and potential impact on current individuals or future opportunities (Maximum of 500 words).

Resources, Facilities, and Environment: Provide the following information for each major research site, including the PI and affiliated site(s) of Key Personnel. This will describe the intellectual and material resources of the research institution; available equipment and relevant facilities, both on-site and affiliated; shared institutional cores; research and clinical centers; private and federal grant programs that provide complementary support of the proposed research. (Two page limit for each institution. If you are using multiple sites within one institution, the limit is still two pages)

Biographical Sketches of the Principle Investigator, Co-Investigator(s), and Key Personnel. Biosketches of other non-Key Personnel (those whose positions may be temporary or not required for research performance) may also be optionally included. (Standard NIH Biosketch, 5- page limit each).

Current and Pending Research Support of Principle Investigator, Co-Investigator(s), and Key Personnel: Include funding organization; grant title and identification number; role on the grant; total amount and period of support, as well as yearly available direct costs to PI; goals of the research; description of the relationship of the funding to the current proposal which may be a statement of No Overlap, as indicated.

**Research Plan:** The Research Plan will consist of a one-page Specific Aims plus a Narrative of 7- pages (Eight pages in total). All figures and tables will be included within this page limit, with references not included. While a specific format is not required, the Plan should describe the scientific question/premise and its significance/relevance, specific aims, experimental approach and published and/or preliminary results, participant characterization (as applicable, describe subject inclusion/exclusion criteria, methods of recruitment, and prior program recruitment success), expected outcomes, pitfalls and alternatives, timeline, and potential impact on current individuals or future opportunities. Research Plans should describe how accepted standards to achieve rigorous, reproducible, and transparent results will be implemented, including well- controlled experimental design, unbiased methods, randomization, blinding, sample size estimation, and statistical analysis of data. As needed, indicate adequate administrative support, regulatory procedures, and data coordination processes. The applicant should also consider the criteria that the reviewers will use to evaluate the proposal, as described below.

**References:** references should be complete including all authors in correct order, title, year, journal and pages, and citation link when available. (Three page limit)

**Budget and Justification:** Pilot Grants will be funded at the level of \$200,000/yr x 2yrs in total. **To format the budget, applicants will employ the newly designed Budget Template provided by EAF, linked [here](https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:4b489c49-0380-4cf0-b545-4e896c81d50c).** (<https://acrobat.adobe.com/link/track?uri=urn:aaid:scds:US:4b489c49-0380-4cf0-b545-4e896c81d50c>.) Institutional indirect costs may be included in those totals up to a level of 15%. Direct and indirect costs of any subaward or contract must be included in the total direct costs of the primary award. Direct costs may be requested for investigator(s) salary (NIH PI Salary Cap will be respected), other research personnel including graduate and postdoctoral fellows, research materials and supplies, subject costs, facilities/core usage fees, minor equipment (<\$5000.00), consultant costs, publication fees, and travel for one investigator to one scientific meeting.

Requests for equipment above \$5000 will require full justification as necessary for the specifically proposed research project and approval by EAF. Funds may not be used for physical construction, furnishing, institutional infrastructure, or tuition support.

Budget justification should describe the specific functions of all key personnel, collaborators, consultants, and support staff. Explain and justify all expense categories for each year and present the total budget. There is a two-page limit for the written justification narrative.

If there is a consortium institution, subcontract, or subaward reference, an extra Budget Template will be employed and an additional two pages of justification are approved.

**Human Participants and/or Vertebrate Animals:** Using standard formats of NIH grants, provide relevant information to address these regulations. For human participants, describe justification for human involvement; the risk of the proposed research; adequacy of protection against risks; potential benefits to subjects or others; importance of knowledge to be gained; and as indicated, data and safety monitoring. For vertebrates, describe justification for use; species and numbers; sex as biological variable; veterinary care conditions; procedures to minimize discomfort and pain; and methods of euthanasia. Do not use these pages to circumvent page limitations of the research and experimental plan, as all such information is to be wholly contained within the Research Plan as above. Reviewers will be instructed to disregard any such misplaced information in their critical evaluation. NOTE: EAF does not require IRB or IACUC certificate at the time of application submission, but grant funding will not begin until appropriate institutional IRB or IACUC certification has been received. (Two page limit)

**Letters of Collaboration:** Provide a signed letter for each collaborator or organization that will demonstrate that the PI has the support or resources necessary for the proposed work. This should be within the single PDF.

**Data and Resource Sharing Plan:** Describe how data and resources generated during this project will be shared with the research community, following standard NIH procedures

### **Review Criteria:**

Eagles Autism Foundation's grant review process is based on standard NIH-CSR review criteria which include reviewer assessments of the proposal Significance/Impact, Investigator, Innovation, Approach, and Environment.

### **Proposal Format for Postdoctoral Fellowship (limited to Philadelphia)**

The Proposals submitted in response to invitation will include these items in the following order:

Cover Page: Title of the Proposal; Type of Proposal: Postdoctoral Fellowship; Term of the proposal; Name, title, affiliation, and contact of PI; Institution and Department/Unit of the applicant; Name, title, and affiliation of Postdoctoral Mentor; Institution and Department/Unit of the Mentor; Name and contact of the Financial Officer and/or Signing Official; whether research is Human or Animal, and whether IRB or IACUC is Approved or Pending.

Abstract: The abstract should be intelligible to a knowledgeable lay person or non-expert and must describe the scientific question/premise and its significance/relevance, specific aims, experimental approach, expected outcomes and timeline, and potential impact on current individuals or future opportunities (Maximum of 500 words).

Resources, Facilities, and Environment: Provide the following information for each major research site, including the PI and affiliated site(s) of Key Personnel. This will describe the intellectual and material resources of the research institution; available equipment and relevant facilities, both on-site and affiliated; shared institutional cores; research and clinical centers; private and federal grant programs that provide complementary support of the proposed research. (Two page limit for each site)

Research Plan: The Research Plan will consist of a 4-page document in total with a Specific Aims section of no more than 1-page. All figures and tables will be included within this page limit, with references not included. While a specific format is not required, the Plan should describe the scientific question/premise and its significance/relevance, specific aims, experimental approach and preliminary results as appropriate, participant characterization (as applicable, describe subject inclusion/exclusion criteria, methods of recruitment, and prior program recruitment success), expected outcomes, pitfalls and alternatives, timeline, and potential impact on current individuals or future opportunities. Research Plans should describe how accepted standards to achieve rigorous, reproducible, and transparent results will be implemented, including well-controlled experimental design, unbiased methods, randomization, blinding, sample size estimation, and statistical analysis of data. As needed, indicate adequate administrative support, regulatory procedures, and data coordination processes. The applicant should also consider the criteria that the reviewers will use to evaluate the proposal, as described below. (Four page limit)

References: references should be complete including all authors in correct order, title, year, journal and pages, and citation link when available. (Three page limit)

Letters of Collaboration: Provide a signed letter for each collaborator or organization that will demonstrate that the PI has the support or resources necessary for the proposed work. This should be within the single PDF.

Data and Resource Sharing Plan: Describe how data and resources generated during this project will be shared with the research community, following standard NIH procedures.

Postdoctoral Fellow Information:

Personal Career Statement: The applicant should provide a statement of their background, research experience, scientific goals and motivations, and career plans related to neurodevelopmental disorders. Explain how this specific research, training, and mentor will support your growth and development. (One page limit)

Biographical Sketch of the Postdoctoral Fellow, that should include the scores of the GRE and/or MCAT, as well as graduate and/or medical school GPA. (Standard NIH Biosketch, 5-page limit format is acceptable but not required).

**Postdoctoral Mentor Information:**

**Fellow Training Plan and Qualifications:** The Postdoctoral Mentor should provide a comprehensive description of the research knowledge, technology, and training that this 2-year fellowship will provide to the applicant, and how it relates to their specific career plans. Discuss the relevance of this research project and approach to understanding the etiology, diagnosis, treatment, and prevention of Autism Spectrum Disorders, and how the mentor's past research has contributed to this field. Please describe past experience with training researchers at all levels that will support the feasibility and value of the proposed fellowship program. Provide an evaluation of the qualifications of the Postdoctoral Fellow for performing this research program, as well as expectations for their future contributions. (Four page limit)

**Current and Pending Research Support of Postdoctoral Mentor:** Include funding organization; grant title and identification number; role on the grant; total amount and period of support, as well as yearly available direct costs to PI and available to support the Fellow research and salary; goals of the research; description of the relationship of the funding to the current proposal. (One page limit)

**Biographical Sketch of the Mentor.** (Standard NIH Biosketch, 5-page limit).

**Letter of Recommendation:** A letter of recommendation from a single individual (not the Mentor) should be sent via the grant application portal. The fellow will provide the email address of the reference who will directly be sent a portal to upload the recommendation letter. This letter will not be shared with the applicant. The reference should describe their relationship with the applicant, and the Fellow's past research experience, training, strengths and challenges, and career goals, and how this Postdoctoral Fellowship will promote their career advancement.

**Submission**

The LOI should be submitted online through the following link on August 25, 2023:

<https://www.eaglesautismchallenge.org/funding-2023/>

**Review Criteria for Postdoctoral Fellowships**

In addition to the above five criteria, Reviewers will also evaluate the Mentor's qualifications and expertise in research and training, as well as the quality of the proposed Training Plan to promote development of the Fellow and success of the Research Program.

**Notification:** Applicants and their institutions will receive email notification from the Executive Director of the Eagles Autism Challenge at the conclusion of the review process. If there are questions about a proposal or additional information needed to make an award, applicants and their institutions will be contacted to provide appropriate supporting materials.

**Payment of Awards:** The tentative date of award payment will be January, 2023. Year two award payments will be made approximately one year later.

**Acknowledgments:** Publications resulting from projects supported by the EAC must carry the following acknowledgment: "This work was supported by a grant from the Eagles Autism Challenge (Grant Number, Awardee Initials)." The support of the Eagles Autism Challenge should be acknowledged by the grantee and by the institution in all public communications of the supported research including scientific abstracts, posters, press releases, or other media and internet avenues.

**Annual and Final Progress Reports:** An Annual Progress Report for each year of the grant (research and financial; see Guidelines for format) will be submitted by the end of each year of funding. A Final Progress Report will be submitted within 1 month of the grant termination. The second year of funding may be at risk should substantial progress be lacking at the one-year evaluation.



Post-Doctoral Fellowship Eligibility (limited to Philadelphia) Zip codes and map below:

