

Funding Opportunity Title: Investigation of SYNCRIP-Related Neurodevelopmental Disorder Disease Mechanisms

Funding Opportunity Purpose: The purpose of this notice of funding opportunity is to support efficient and thorough investigation of disease mechanisms of SYNCRIP-Related Neurodevelopmental Disorder (SYNCRIP-RNDD) in neuronal cells utilizing patient-derived cell lines.

Funding Opportunity Goals: The goal of this notice of funding opportunity is to support experimental research focused on SYNCRIP-RNDD patient-derived neurons.

Background

The HNRNP-RNDDs have yet to be modeled using patient-derived cells, specifically iPSC-derived neural progenitor cells (NPCs), neurons, and organoids. Much of this opportunity could be applied to any HNRNP-RNDD, but will focus initially on SYNCRIP-RNDD. This will answer questions surrounding the disease mechanism of SYNCRIP-RNDD. Key questions to be answered include:

- What is the level of RNA and protein expression in iPSC-derived neuronal cells? Is there evidence of compensation and/or allele imbalance from the remaining wild-type allele?
- Is there mislocalization of SYNCRIP, and does this vary by variant type?
- Are other hnRNPs dysregulated and/or dysfunctional? Is there evidence of compensation by another hnRNP?
- Are there key differences between previously generated transduced neuronal RNAseq data and iPSC-derived neuronal RNAseq data?
- What neuronal processes are disrupted by damaging *SYNCRIP* variants, including changes in morphology, electrophysiology, growth, and differentiation?
- Are iPSC-derived NPCs, neurons, and/or organoids a good model to test therapeutics?
- What is the appropriate biomarker for assessing potential therapeutics in this model?
- Are there any altered genes/proteins that may be good drug targets?
- How do damaging variants in *SYNCRIP* lead to SYNCRIP-RNDD?

Consideration must be given to cell type, as the HNRNPs have enriched expression in radial glia and other neuronal subtypes. Fibroblast cell lines from multiple patients with SYNCRIP-RNDD are available and continue to be collected by the HNRNP Family Foundation. Three iPSC lines derived from SYNCRIP-RNDD patients are available. RNAseq data from some of these cell lines and transdifferentiated neurons derived from these cell lines will be available for analysis/comparison by late 2026.

Award Information

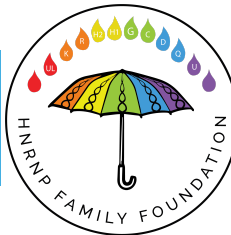
Funding Body: HNRNP Family Foundation

Award Budget: \$300,000 distributed over two years

Award Project Period: the maximum project period is two years

Investigation of SYNCRIP-Related Neurodevelopmental Disorder Disease Mechanisms Request for Applications

Released February 27th, 2026



Award Review Considerations

As applicable for the project proposed, reviewers will consider each of the following items:

Resource Sharing Plans

Reviewers will comment on whether the following Resource Sharing Plans, or the rationale for not sharing the following types of resources, are reasonable: (1) Data Sharing Plan; (2) Sharing Model Organisms; and (3) Genomic Data Sharing Plan (GDS).

Authentication of Key Biological and/or Chemical Resources:

For projects involving key biological and/or chemical resources, reviewers will comment on the brief plans proposed for identifying and ensuring the validity of those resources.

Budget and Period of Support

Reviewers will consider whether the budget and the requested period of support are fully justified and reasonable in relation to the proposed research.

An impact score will be applied to each proposal received based on scientific rigor and ability to meet the conditions of the funding opportunity. Each grant will be reviewed by three individuals relevant to the HNRNP-RNDD scientific community and a committee of patient advocates. This impact score will include the following:

- Significance
- Investigators
- Innovation
- Approach
- Environment

Proposed Timeline

August 2026-July 2027; August 2027-July 2028

Instructions for Letter of Intent

Letters of Intent (LOIs) for this proposal, limited to 3 pages (other than the CV), will be due March 20th, 2026.

This must include:

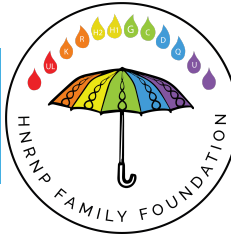
1. A brief, high level description of the proposed project and specific aims
2. CV of Principal Investigator

Instructions for Full Proposal Submission

Applicants will be informed of their invitation to submit a full proposal by March 27th, 2026. Full proposals will be due May 1st, 2026, with informing applicants of funding by June 1st, 2026.

Please format your proposal similar to NIH formatting. Your proposal should include the following components:
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1. Cover Letter explaining intent of the study (1 page)
2. Project Site Locations and their benefits/resources available to the project (1 page)
3. Senior/Key Personnel. Please include an up-to-date CV for each researcher. This can include the Principal Investigator, members from their lab (postdoctoral fellows, graduate students, etc), and other collaborators if they are directly involved in the project.
4. Budget explaining how the \$300,000 over two years will be utilized. Note that the HNRNP Family Foundation does not cover indirect costs. (1 page)
5. Research Plan (up to 8 pages)

Proposed projects MUST include the following components. The major thrust of the project MUST involve exploitation of neuronal cells generated from patient derived iPSC lines to better understand the molecular and cellular mechanisms SYNCRIP-RNDD. At least one aim or sub-aim MUST also involve neuronal characterization including use of multiple electrode plates, electrophysiology, or similar method. At least one aim or sub-aim MUST involve RNAseq, other sequencing methodologies such as eCLIP, and/or mass spectroscopy/high-throughput protein studies.

Submission Guidelines

Letters of Intent will be due March 20th, 2026. Full proposal submissions will be due May 1st, 2026, with notification of award by June 1st, 2026 and funding to be started August 1st, 2026. Submissions must be made through the HNRNP Family Foundation website, www.hnrnp.org***

Contact

Please contact Maddie Gillentine, PhD at maddie@hnrnp.org with any questions.