



## Autism Speaks Request for Applications Research Planning Grants

### Submission, Review & Notification Schedule (subject to change):

**Application due:** November 22 2021, 8:00 PM Eastern

Applications can be started: October 18, 2021 (9 AM Eastern)

Review: November/December 2021

Notifications: January 2022

Earliest Grant start date: March 2022

### Overview

#### **Autism Speaks invites Research Planning Grant applications**

Autism Speaks anticipates awarding four (4) research planning grants, up to \$300,000 USD each (over 18 months). The Research Planning Grant mechanism directly addresses the Autism Speaks Strategic Mission and 2021-2023 Strategic Plan to advance the care of those highly impacted by ASD. The awards will support the development of a manualized model, supported by pilot data, and the development of a research plan to evaluate the model against a comparison condition.

Two (2) awards will focus on the **development of a comprehensive plan** that describes a model for assessment and intervention for autistic individuals with **significant challenging behavior** and a research design that could evaluate the efficacy or effectiveness of this design against a plausible comparison condition. Ideally, models and research designs will cover a broad age range, enhance access for underserved communities, or be adapted to do so, and is scalable to ensure that the approach, if empirically supported, will provide significant positive community impact.

Two (2) awards will focus on the **development of a comprehensive plan** that describes a model for assessment and behavioral intervention to address the difficulties related to the core features of autism spectrum disorder in **adolescents and adults highly impacted by ASD**, and a research design that could evaluate the efficacy or effectiveness of this design against a plausible comparison condition. Ideally models will enhance access for underserved communities, or be adapted to do so, and is scalable to ensure that the approach, if empirically supported, will provide significant positive community impact. This award is focused on skill acquisition but should also be applicable to those with significant behavioral challenges.

*Applications should not include exclusively remote/telehealth service delivery models.*

*Applications should not include exclusively psychopharmacological treatments*

Final funding decisions will be based on the scientific merit and fidelity to the RFA of reviewed applications.

## **Introduction**

Autism Speaks is committed to advancing effective care and supports for individuals and families significantly impacted by autism spectrum disorder (ASD).

There is a paucity of group comparison evidence for assessment and intervention models for those experiencing challenging behaviors across the lifespan. The co-occurrence of severe destructive behavior in individuals with developmental disorders is an overwhelming barrier to health, well-being, and community integration. Challenging behavior can occur in as many as half of individuals with ID [1]; and 5–10% of these individuals' behavioral challenges are characterized as severe [2]. The lifetime prevalence of self-injurious behaviors among children with ASD is reported to exceed 28% [3]. Currently, there is no systematic framework for assessing and intervening in challenging behavior that would inform appropriate service provision.

There is an increased need for evidence-based services as more people with ASD are moving toward adulthood. A 2017 population-based survey estimated that there are over 5 million people 18 and over with ASD<sup>[4]</sup> yet there are few intervention models specifically designed for autistic adolescents and adults, nor are there clearly replicable models of assessment and behavioral intervention for adolescents and adults highly impacted by ASD. There is a need to build empirical support for behavioral intervention models specifically tailored for adolescents and adults with ASD who require more intensive supports to achieve optimal functional outcomes.

## **Key Objectives and Outcomes**

This request for applications (RFA) seeks proposals for research planning in two areas.

### **Area 1**

Funding would support the development of an assessment and behavioral intervention model for autistic individuals across the lifespan with significant challenging behaviors, and a planned research design to evaluate the intervention.

The goal of this grant is to develop a comprehensive plan that describes a model for multidisciplinary assessment and intervention of autistic individuals significantly impacted by challenging behavior. The research design should include a plan to evaluate the efficacy or effectiveness of this design against a plausible comparison condition such as individuals receiving usual treatment practices. The planning grant should include the collection of preliminary data to support the model and future research. The research plan would be strengthened by multi-site collaboration or a single site project with a plan for a replication phase of the project. The intention is that the final research plan would be used to support future funding to evaluate the model and that the results of future research support broad clinical implementation of the model in community settings including scalability and enhancing access for underserved communities.

#### **Key Outcomes**

- The development of a comprehensive manualized model (that is scalable and can be adapted to reach underserved communities)
- Preliminary data collection to support the model (not single case design)
- A research plan to evaluate the model in a RCT (strengthened by multi-site collaboration)

### **Area 2**

Funding would support the development of a behavioral intervention model for autistic adolescents and adults requiring significant supports and a planned research design to advance optimal functional outcomes.

The goal of this grant is to develop a comprehensive plan that describes a model for assessment and intervention for autistic adolescents and adults significantly impacted by ASD and a research design that could evaluate the efficacy or effectiveness of this design against a plausible comparison condition such as usual treatment practices. but should also be applicable to those

with significant behavioral challenges. The planning grant should include the collection of preliminary data to support the model and future research. The research plan would be strengthened by multi-site collaboration or a single site project with a plan for a replication phase of the project. The intention is that the final plan would be used to support funding for the research described in the plan and that the results of future research would support broad clinical implementation of the model in community settings including scalability and enhancing access for underserved communities.

#### Key Outcomes

- The development of a comprehensive manualized model (that is scalable and can be adapted to reach underserved communities)
- Preliminary data collection to support the model (not single case design)
- A research plan to evaluate the model in a RCT (strengthened by multi-site collaboration)

#### **Awards**

Autism Speaks will make awards based on the quality of the submissions and available financial resources. Research planning grants are up to \$300,000 USD, inclusive of 10 percent indirect costs. The term of the grant will be 18 months. Autism Speaks follows the NIH Salary Cap for research awards. The specific cap for this RFA is listed in the Budget section.

#### **Eligibility**

Investigators holding full-time tenured or tenure-track faculty appointments or equivalent full-time, non-tenure track appointments at accredited academic, medical or research institutions are eligible to apply.

- Applications will NOT be accepted from individuals or from proprietary organizations to support the research and development of products for profit.
- As Principal Investigator(s), Co-Principal Investigator(s), or Co-Investigator(s), all applicants are restricted to one submission per process. *Multiple submissions will not be reviewed.*

#### **General Instructions**

All applications must be submitted through the online [Autism Speaks Science Grants System](#).

Please Note:

1. One Principal Investigator must be the applicant and primary contact. Go to <https://science.grants.autismspeaks.org> and register with your **institutional** email address or log in if you have already have a profile. We recommend using the following browsers: Chrome, Firefox, or Safari. Complete your profile information.
2. [ORCID profiles](#) – Autism Speaks policy requires all applicants, co-principal investigators, and co-investigators to obtain ORCID profiles and link them to their Autism Speaks Grant System profile. [ORCID Help document](#). Applicants will not be able to work on their application until they have connected their ORCID profile to their Autism Speaks profile. Links in the Autism Speaks Science Grant system will make this step easy.
3. Log in and click “Applications” at the top of the profile page or “Go to Applications” at the bottom of the page. Choose “Start a new LOI or application” then choose “Research Planning Grants 2022”. The application includes two web pages, the Basic Information Page and the application Form page. It is advisable to start an application and review these pages in the grant system as soon as possible.
4. Uploaded documents should be 11-point Arial font with 1-inch margins all around; single spacing is acceptable. NIH Biosketches can be submitted with their default margins and fonts. Please do not have headers or footers (including page numbers) in submitted

- documents. Applications exceeding the specified document limits will not be reviewed.
5. Preferred file type is PDF and must not be encrypted. Movie files are not acceptable.
  6. It is the applicant's responsibility to contact their Office of Sponsored Projects (or the equivalent) to identify the Responsible Official (RO) for this application. The Responsible Official will review and submit the final portion of the application. Their submission is their approval of the application on behalf of the institution.

**NOTE: Applications that do not meet submission criteria will be returned without further review.**

**1. Basic Information Page includes:**

- a. **Title:** Enter less than 100 characters, spaces included.
- b. **Scientific Abstract:** (up to 2,000 characters, spaces included) that describes the project goal(s) and/or hypothesis, specific aims, research methods, expected results and significance/relevance to the goals of this RFA.
- c. **Co-Principal Investigators and Co-Investigators** (tip: start by entering the last name). It is important to enter all individuals participating in the project. Many people are in the database already. Adding a new person requires their institutional email.
- d. **Responsible Official:** Choose the Responsible Official from the PI's institution. You must have an institutional email to add a new person.
- e. **Keywords:** Carefully select all the relevant keywords associated with the project.

**2. Preparing the Application:** Applications are limited to the items listed below; no other supporting documents will be accepted. Starred items are required.

- a. **Choose Area\*** – Choose the area your application will focus on. Descriptions are in Key Objectives.
- b. **Project Narrative\* (two pages maximum)** The application should address a research plan and timeline that addresses a model of care with potential to improve the lives of
  - a. Autistic persons struggling with significant behavior challenges or
  - b. Autistic adolescents and adults with significant needs
- c. **Figures: (optional)**, include a maximum of one page of relevant images, figures, and graphics. Images uploaded here will not be counted towards the two-page limit.
- d. **References:** include literature citations including titles and all authors. References are not included in the two-page limit.
- e. **Budget Table\*:** Complete the online budget table (in USD). The budget may include:
  1. Personnel Costs (not to exceed the percent effort committed to the proposed project) FTE Salary cap is \$200,000 USD.
    - a. Principal investigator(s) and/or co-investigator salaries and benefits. If a person's personnel costs are included in a subcontract, leave their row blank in this section.
    - b. Technical research assistant salary and benefits
    - c. Research assistant or fellow stipends and benefits are allowed (NOTE: Tuition reimbursement is not allowed).
    - d. Consultants
  2. Research supplies, services, and related expenses
  3. Publication and data analysis costs
  4. Collaborations: if you have collaborating sites, put their total direct cost amount in a "subcontract" row and include an appropriate explanation in the budget justification section. Indirect costs will be added by the budget table.
  5. Indirect costs: An amount not to exceed 10 percent of direct costs may be included for the sponsoring institution's indirect (overhead) costs. The total grant cannot exceed \$300,000 US.
- f. **Budget justification\*** (two pages maximum) Provide an explanation for all lines in the budget. Include explanations for subcontract budgets as appropriate.

- g. **Letters of collaboration:** If collaborators are identified, include letters of collaboration and support to demonstrate sustainability and partnership. These letters should also outline what the collaborators are willing to contribute in time, effort, resources and infrastructure. All those whose salary, in whole or in part, will be covered by the grant should be included in the budget. Combine multiple letters into one file for upload.
  - h. **Biographical sketches:** For the principal investigator(s)\*, named co-investigators and collaborators in NIH format (five pages maximum each). Indicate education and complete citations (including title) of publications relevant to the proposed research, and briefly describe current and pending grant support. There is one upload slot for the applying PI (required), another for Co-PIs, and another for Co-investigators or others. Multiple biosketches for these groups must be combined into one file for upload.
  - i. **Supporting files: (optional)** Other documents that are relevant to the application must be referenced in the project plan and may be uploaded to “Additional Materials.” Multiple documents should be combined into one file for upload.
3. **Submission/institutional approval** –When the applicant is ready, he/she should click the “Ready for RO” link at the bottom of the application form page. The system will send an email to the Responsible Official (RO) who will then be able to review and submit the application. The RO can view the application at any time. The RO can also revert the application to draft if changes are needed. After making such changes, the applicant should click “Ready for RO” again.

### **Submit the Application**

When the application is complete, the applicant will click “Ready for RO Approval” on the application form page. It is the responsibility of the applicant to contact their Responsible Official who must complete the submission. Applications must be submitted electronically using the Autism Speaks Science Grants System. Applications that are late, incomplete, exceed the document limitations, or do not adhere to the required format will not be reviewed. Faxed or emailed applications will not be reviewed.

### **Notification and Announcements**

Applicants will be notified by e-mail after the funding decision process is complete. All grant awards will be posted on the Autism Speaks website.

### **Post Award**

The recipient of any grant from Autism Speaks must use the awarded funds as specified in the approved budget. Any funds not used in the above specified manner must be returned to Autism Speaks. Payment of the awards is contingent on receiving any institutional approvals (IRB or IACUC) that may be required for the research.

### **Review Process and Evaluation Criteria**

Applications will be reviewed by independent peer review that will include active and experienced investigators in the research areas of the applications.

### **Contacts**

#### ***Grants Administration/Online Application/Budget Questions:***

Joan New, MBA, Grants Manager: 609-228-7313; [jnew@autismspeaks.org](mailto:jnew@autismspeaks.org)

#### ***Application Development:***

*We invite inquiries regarding applicability to the RFA and application development*

Donna Murray PhD, Vice President, Clinical Programs: [donna.murray@autismspeaks.org](mailto:donna.murray@autismspeaks.org)

## **References**

1. Dekker, M. C., Koot, H. M., van der Ende, J., & Verhulst, F. C. (2002). Emotional and behavioral problems in children and adolescents with and without intellectual disability. *Journal of Child Psychology and Psychiatry*, 43(8), 1087-1098. <https://doi.org/10.1111/1469-7610.00235>
2. Emerson, E., Kiernan, C., Alborz, A., Reeves, D., Mason, H., Swarbrick, R., Mason, L., & Hatton, C. (2001). The prevalence of challenging behaviors: a total population study. *Research in Developmental Disabilities*, 22, 77-93. [https://doi.org/10.1016/S0891-4222\(00\)00061-5](https://doi.org/10.1016/S0891-4222(00)00061-5)
3. Soke, G. N., Rosenberg, S. A., Hamman, R. F., Fingerlin, T., Robinson, C., Carpenter, L., Giarelli, E., Lee, L. C., Wiggins, L. D., Durkin, M. S., & DiGuseppi, C. (2016). Brief Report: Prevalence of Self-injurious Behaviors among Children with Autism Spectrum Disorder-A Population-Based Study. *Journal of autism and developmental disorders*, 46(11), 3607–3614. <https://doi.org/10.1007/s10803-016-2879-1>
4. Dietz, P.M., Rose, C.E., McArthur, D. *et al.* National and State Estimates of Adults with Autism Spectrum Disorder. *J Autism Dev Disord* 50, 4258–4266 (2020). <https://doi.org/10.1007/s10803-020-04494-4>