



## **Pharmacological Treatments for Autism Spectrum Disorders**

### Request For Applications

#### Introduction

Autism Speaks invites proposals to conduct clinical studies into the use of pharmacological treatments in children and adults diagnosed with autism or autism spectrum disorders (ASD). These treatments could target the core and domain specific features of autism and also associated behavioural problems. Applications are encouraged both from scientists already focusing on autism and from those new to the field. All proposals must have direct and immediate relevance to autism and its related disorders.

Proposals should seek to accomplish one or more of the following objectives:

- Evaluate the efficacy or therapeutic benefit of pharmacological treatments in children and adults diagnosed with autism and autism spectrum disorders.
- Evaluate the safety of the use of pharmacological treatments in children and adults diagnosed with autism and autism spectrum disorders.
- Compare different pharmacological interventions.

The goal of this initiative is to develop a network of study sites to provide robust and reliable pilot data on pharmacological based treatments and to identify strong pharmacological candidates that can be evaluated in broader-scale clinical trials. Therefore, study designs should be clearly defined so as to enable replications and/or expansions of the initial studies. (Note: Proposals relating to open label studies are eligible for submission.)

#### Awards

Autism Speaks will make a limited number of research awards determined by its available financial resources. Each research award will be for a period of at least two and not more than three years in an amount not to exceed \$200,000 per year for a 2-site study, \$300,000 per year for a 3-site study, \$400,000 for a study involving more than 3 sites. Single-site study applications will not be accepted. An amount not to exceed 10% (inclusive) of the total award shall be used for Sponsoring Institution's indirect (overhead) costs. All awards are one-time, non-renewable research grants.

#### Eligibility

Investigators holding full or part time faculty appointments or equivalent at accredited academic, medical research or educational institutions are eligible to apply. Applicants are restricted to one proposal per review cycle as Principal Investigator. Applications will NOT be accepted from individuals or proprietary organizations to support the research and development of products for profit.

#### Letter of Intent

The applicant must first submit a Letter of Intent through the Autism Speaks Grants Administration web site that includes the following information:

- a. A concise description of the proposed project including: specific aims, methods and expected results

- b. A clear justification for the relevance and potential significance of the project to understanding the treatment, prevention or cure of Autism Spectrum Disorders
- c. Names, titles and institutional affiliations of active collaborators/co-investigators in addition to the PI (excludes consultants, postdoctoral fellows, students and technicians)

The Letter of Intent cannot exceed 2 pages including references. In addition, the LOI field requires that the applicant provide the following information at the time of submission: key word selections; proposal title, number of years requested, and RFA to which the PI is responding. Please refer to the Autism Speaks Grants Administration System for more detailed instructions.

Only applicants whose Letters of Intent are approved by Autism Speaks will be invited to submit full proposals. An invited proposal cannot deviate significantly from the project description in its approved Letter of Intent. Proposals received without first obtaining an approved Letter of Intent will be returned without review. Autism Speaks also reserves the right to return without review any proposal that in its judgment is not in compliance with its rules and procedures for proposal preparation and submission, is not responsive to its research goals, or exceeds its funding limits or available resources.

#### Proposal Preparation

Proposals should be written in 11 point Arial font. Use of smaller or difficult to read fonts may result in the proposal being returned without review. Please refer to the Autism Speaks Grants Administration System for more detailed instructions.

A typical research proposal will include the following sections:

- Scientific/Technical Abstract (maximum 1 page) and Key Words; must be intelligible to a knowledgeable professional peer, and describe the project goal(s) and/or hypothesis, specific aims, research methods, expected results and significance/relevance
- Lay Abstract (maximum 1 page): must be intelligible to a knowledgeable lay person and describe the project goal(s), general means, expected results and their significance/relevance to the treatment, prevention or cure of autism spectrum disorders
- Research Plan (maximum 15 pages):
  1. Background: Describe the theoretical framework, initial development, and existing empirical support for the pharmacological treatment including:
    - a. The background for the study design (supporting materials should be submitted in the appendix and referenced in the research plan);
    - b. The expected therapeutic benefit(s) and the likelihood that the benefit(s) will outweigh any negative side effects;
    - c. The selection of the targeted symptom(s)
    - d. How the expected benefit(s) of pharmacological treatment will address the needs of to the participating children and families, including specific functional outcomes;
    - e. How strong positive findings could be further evaluated in larger studies;
    - f. The use of any biomarkers.

2. Study Design: Study participants should be from carefully selected populations and the selection criteria described and justified. Describe and justify: sampling strategy, implementation and evaluation methods; assessment of therapeutic benefit(s); monitoring and reporting of side effects and toxicity; criteria and decision making process for suspending or terminating the study prior to completion; method for validation of the selected outcomes measures; the nature; relevancy of control groups (including the use of historical control groups); methods to control for confounding factors and bias (particularly for open-label studies); statistical power analysis and potential limitations; and the development and the role of the Trial Steering Committee. Describe the feasibility of achieving study objectives within funding period (including sample availability). Address any ethical issues implicit in study design.
  3. Other Treatments: Describe potential confounding factors or combined interventions (diet, medication etc.) that parents are using in addition to the primary treatment protocol, and their potential or known impact on the treatment protocol.
- Bibliography with complete literature citations including titles and all authors
  - Budget for each year of the project and a cumulative budget. The budget may include:
    - Personnel Costs (not to exceed the percent effort committed to the proposed project)
      - Up to 20% of Principal Investigator and/or Co-Investigator salaries and benefits is allowed
      - Technical support salaries and benefits
      - Postdoctoral fellow stipend and benefits
      - Graduate student stipend benefits (NOTE: Tuition reimbursement is not allowed.)
    - Project Costs
      - Research supplies, services and related expenses
      - Essential equipment not to exceed \$15,000 per year or \$30,000 total. A vendor estimate is required for a single item of equipment costing more than \$5000.
      - Travel to professional meetings
      - Data analysis and publication costs
  - Budget justification: Justify personnel costs, project-dedicated resources, services and equipment and any unusually costly expenses or travel
  - Description of relevant facilities and necessary on-site and off-site resources
  - Biographical Sketches of the Principal Investigator and named Co Investigators in NIH format, not to exceed 3 pages each; indicate education, complete citations (including title) of publications relevant to the proposed research and briefly describe currently funded research projects (especially clinical and research experience with pharmacological treatment in mental health disorders)
  - Current and Pending Support: indicate funding source, total award amount, award duration (inclusive dates) and project title; clearly explain any overlap with the proposed research including the extent to which the projects are redundant or complementary

- Human Subjects Certifications must be documented with a copy of an official letter of approval (or equivalent for non-US applicants), which identifies the Principal Investigator, project title and date of approval, and is signed by the Review Committee Chair or equivalent responsible institutional/government official. Prior certification for another project cannot be substituted, but can be officially amended to include the proposed project (identified by project title). **IMPORTANT: IRB (or equivalent ethical) certification is NOT required to submit an application; however, IRB (or equivalent ethical) certification must be submitted as soon as possible following official notification of an award.** Autism Speaks will NOT issue the first funding increment of a grant until this certification is received. Rules governing human subjects (IRB) certifications for both US and non-US institutions can be found at: <http://grants.autismspeaks.org/research/tandc.asp>.
- Letters of Collaboration or Agreement
- Appendices: Critical photographs or instrument descriptions requiring special formatting and other essential background material can be submitted as pdf files and referenced in the Research Plan. A maximum of 3 peer reviewed research publications (including manuscripts under review or accepted for publication) will be accepted; however, manuscripts not yet accepted for review, review articles, book chapters, popular press articles and meeting abstracts will NOT be accepted. WARNING! Appendix publications are provided as a courtesy to the reviewers who are under no obligation to read or consult them in evaluating a proposal.

#### Submission of Letters of Intent and Proposals

Only Letters of Intent and proposals electronically submitted through the Autism Speaks Grants Administration System will be accepted for review:

<http://grants.autismspeaks.org/research/login.asp>. Letters of Intent and proposals submitted by regular mail or by email will be returned without review. **Letters of Intent are due on September 28, 2007. Proposals are due on February 15, 2008.**

**IMPORTANT!** Proposals will NOT BE ACCEPTED after the due date unless prior permission is obtained, and only for exceptional circumstances (e.g., child birth, serious illness or death in the family, natural disaster). It is the applicant's responsibility to insure that the proposal is in compliance with the policies and procedures prescribed in the RFA. Autism Speaks reserves the right to return without review any proposal found to be not in compliance with the policies and procedures prescribed on the RFA at any time during the application and review process.

#### Review and Selection

The peer review panel will meet in March 2008. Funding selections and notification of awardees will be made in April 2008, with an expected award start date in May 2008.

#### Payment of Awards

Awards will be paid annually and will be contingent upon registration in the Autism Speaks Grants Administration System of an official authorized to act for the institution receiving the award, and upon acceptance of the Autism Speaks award terms and conditions as described at <http://grants.autismspeaks.org/research/tandc.asp> including receipt of all required certifications.

Funding for award years 02 and 03 will be contingent upon submission by the principal investigator of a satisfactory annual project progress report, and a financial statement showing expended and unexpended funds. Unexpended funds in excess of 25% of the annual award must be satisfactorily explained in the progress report before those funds can be rolled over into the next year of the grant. In addition, an investigator may request a one-time, six-month no-cost extension from the termination date of the award in order to complete necessary work (including data analysis and preparation/submission of manuscripts for publication).

Additional Conditions: It is anticipated that Autism Speak will ask investigators to share their study data after a 'privileged' period of exclusive access. Autism Speaks also expects to implement an independent Data and Safety Monitoring Board for projects funded under this RFA, and will expect cooperation and compliance by investigators with this oversight Board.

Please address questions about proposal submission using the web-based Grants Administration System to Ms. Susan Kravitz, Grants Administrator by telephone at 609-228-7323 or by email at: [skravitz@autismspeaks.org](mailto:skravitz@autismspeaks.org). All other questions (including eligibility to apply) should be addressed to Dr. Charles D. Liarakos, Director of Scientific Review at: [cliarakos@autismspeaks.org](mailto:cliarakos@autismspeaks.org).