



PROSPECTUS:

Aldon Mark Berger Mental Health Imaging Research Grant

INTRODUCTION

With the generous support of the estate of Elaine D. Berger, an endowment dedicated to supporting research and education in mental health has been established for the ASNR. The Foundation of the ASNR now invites applications for neuroimaging research to better understand the pathophysiological underpinnings of behavioral health and mental health disorders with the goal of improving treatment and outcomes. This grant mechanism supports innovative high-impact projects using neuroimaging in conjunction with other methodologies to investigate the neural mechanisms of psychiatric disorders, mental health conditions, and potential therapeutics and other interventions. Examples of topics include, but are not limited to anxiety disorders, ADHD, autism spectrum disorder, mood disorders, eating disorders, obsessive compulsive disorder, personality disorders, PTSD, schizophrenia, chronic pain, substance use, and alcohol use disorders. Applications investigating mechanistic frameworks for social determinants of mental health such as gun violence, isolation, bullying, socioeconomic inequities, social media, and loneliness will be considered responsive. Pre-clinical studies integrating quantitative neuroimaging methodologies with cell signaling, molecular, and systems level mechanisms are invited. Projects leveraging large clinical imaging datasets are also invited provided the work will move the field toward understanding determinants and outcomes. Innovative proposals with multidisciplinary and transdisciplinary teams that leverage diverse expertise are strongly encouraged. Proposals aiming to uncover causal mechanisms and improve clinical outcomes will be viewed favorably.

The research proposal must have a clearly stated, testable hypothesis, or hypotheses, and well-developed aims. Background and scientific rationale should highlight knowledge gaps and explain how the application will fill such gaps.

ELIGIBILITY QUALIFICATIONS

- Candidates must be North American members of ASNR in good standing with an MD, PhD, DO, or equivalent degree.
- All candidates should have an active or imminent academic appointment, such as faculty, instructor, research staff, or post-doctoral student, within a Radiology department.

Applications from investigators at all career stages are welcome. An applicant can only submit one application as PI per cycle but may be a Co-I on more than one grant per cycle.

Multiple PIs from the same institution may submit applications per grant cycle.

CONDITION OF APPOINTMENT

A. The total funding amount is up to \$220,000 over 2 years (direct costs only), which will be paid in two equal installments on July 1, 2025, and July 1, 2026. Any portion of the grant not utilized should be returned to The Foundation of the ASNR. The proposed allocation of resources (salary support and other research costs) should be specified in a detailed line-item budget submitted with the full proposal.

B. The funding will go directly to the Institution or the department of Radiology as direct costs only. An itemized budget is required as part of the award proposal submission. Funds (up to \$110,000 per year) may be apportioned as required by the investigator but must be justified in the application. Examples of fund use might include: (i) salary support for the investigator and/or associated staff (e.g., research assistants, clinical coordinator, statistical support, and/or MD or PhD collaborators), (ii) appropriate scanner time access, (iii) processing software and other types of software (iv) cloud computing resources, and (v) costs related to attending conference, workshop courses or training courses (e.g., computer programming course, specialized image analysis course, or any other workshops). Only direct costs can be included. No overhead or indirect costs are provided.

Expenses for physical infrastructure to support the proposed research (for example, desktop or laptop computers, monitors, GPU cards, memory, or other physical devices) are considered indirect and supported by the host institution and should not be included in the budget.

C. An interim progress report is due on June 30, 2026, and must be submitted in writing to The Foundation of the ASNR. Progress reports should not exceed one page. The progress report should summarize the specific aims, and the progress achieved, explain any significant changes to the specific aims, new directions to be undertaken due to those changes, and expenditures to date. Any publications, patents, or other material related to the funded research should be included on a separate page and submitted separately.

A final report will be due within 90 days of project completion (i.e., Sept 30, 2027). The final report (not more than 3 pages) should include the above with the additional summary of any publications, patents, or grant that are or will be prepared using the results obtained from this Foundation grant. For the final report, recipients should also describe the clinical impact of the results of the research, the strengths and weakness of the grant program, and the role that the Foundation or ASNR has played in the recipient's career. In addition, a "Return-on-Investment" Survey will be emailed to recipient 3 and 5 years after receiving the grant.

D. The recipient will present their research at the ASNR 65th Annual Meeting & The Foundation of the ASNR Symposium in 2027

E. The American Journal of Neuroradiology (AJNR) welcomes the best science and encourages publication submissions to AJNR before considering other journals.

F. Applicants who have held any of the Foundation of the ASNR Research Awards, the RSNA Research Scholar, Research Fellow, or Research Seed Grant Award, GERRAF, or ARRS Grant Award in the past must declare their previous awards on the application. The applicant is

considered ineligible if they are or will concurrently be holding any of previously mentioned grants, while applying to or holding a grant from the Foundation of the ASNR.

G. Note: while institutional IRB approval is not required at the time of award proposal submission, IRB approval or waiver must be submitted to ASNR before fund disbursement for all grant recipients.

H. No grant will be made without prior confirmation from the Department Chair that the applicant's proposal will be supported in full by the host institution. A letter of support from the Chair is required.

I. This grant may be transferred to another institution, following approval by The Foundation of the ASNR for the designated individual, provided the new institution abides by the original agreement and the awardee can conduct the proposed work in the new setting. This request must be submitted in writing to The Foundation of the ASNR at least 30 days prior to the transfer. Each institution sponsoring the recipient will receive a portion of the funding that is in proportion to the length of time that research was performed at their institution. If a decision is made by The Foundation of the ASNR not to allow transfer of the grant to another institution, the original institution sponsoring the recipient will receive funds that are proportionate to the length of time the research project was performed at that institution.

J. Grants will be approved for 2 years. A No-Cost Extension of the terms of the grant may be requested to extend the research period up to 12 months beyond the original ending date. Approval of an extension does not include the awarding of additional funds. A request for an extension must be made in writing to the Chairs of the Foundation of the ASNR. The request must state the reason(s) for the extension, length of extension requested, and review the progress in the original grant period. Requests must be submitted at least 30 days prior to the original ending date. Please note that only one No-Cost Extension request will be considered per project.

K. The grant is not transferable to another individual.

SELECTION METHOD

- A. Grants will be designated and administered by The Foundation of the ASNR.
- B. The Research Committee of the ASNR, or its designate, will provide review and recommendations to the Foundation for the recipient of the grant.
- C. The Grant Program Review Scoring Scale will be the same as NIH scoring scales and modeled on the NIH R21 mechanism (which emphasizes high impact, exploratory investigations). (<https://grants.nih.gov/grants/guide/pa-files/PA-20-195.html>) ***See scoring criteria at end of this prospectus.**
- D. Applications from senior and junior scientists will not be reviewed separately, but consideration will be given to applicants who are within 5 years of completing their post-graduate training.

APPLICATION SCHEDULE

- A. The deadline for receipt of submissions is 9:00 AM Central Standard Time (CST), January 21, 2025. Full proposals should also be submitted via asnr.smapply.io.

Please submit your application via the following submission site <https://asnr.smapply.io>. Applicants will need to create an account and log in to select the award for which you would like to apply.

- B. Selection of grant recipients will be in early spring, with subsequent notification of the recipient and institution. All those with interest in the award, or employees of an institution that may be involved in the award, shall recuse themselves from voting on such applications. If applications are received from the institutions of the Research Committee Co-chairs, the Co-chair(s) will recuse themselves the responsibility of coordinating review of the applications from their home institution.

In May 2025, the Foundation Research Grants announcement will be made via E-News and posted on the Foundation of the ASNR websites. The recipient will present their research at the ASNR 65th Annual Meeting & The Foundation of the ASNR Symposium in May 2027 and receive an invitation to the President's Gala for that meeting.

***Mental Health Imaging Research Grant Scoring Criteria**

Reviewers will consider each of the review criteria below in the determination of scientific merit and give a separate score for each. Individual reviewers will use a 9-point scale, with a score of 1 indicating an exceptionally strong application with essentially no weaknesses. A score of 9 indicates an application with serious and substantive weaknesses with very few strengths; 5 is considered an average score. Ratings are in whole numbers only (no decimal ratings).

Significance (Score 1-9)
Is the project responsive to the goals of using neuroimaging to understand underlying factors and improve treatment and outcomes for mental and behavioral health? Does the proposal include a rigorous scientific background, and does it explain the knowledge gaps it intends to fill? If the aims are achieved, how will scientific knowledge, technical capability, and/or clinical practice be improved?
Reviewer Comments
Investigator(s) (Score 1-9)
Is the PI, collaborators, and other researchers well suited to the project? If the project is collaborative, do the investigators have complementary expertise? Is it multi-disciplinary?
Reviewer Comments
Innovation (Score 1-9)
Does the application challenge and seek to shift current research or clinical practice paradigms by utilizing novel concepts, approaches or methodologies, instrumentation, or interventions? Does it address social determinants of mental health which are less often addressed in neuroimaging research?
Reviewer Comments
Approach (Score 1-9)
Is the overall strategy, methodology, and analyses well-reasoned to accomplish the specific aims of the project? Are there clearly stated, testable hypothesis, or hypotheses, and well-developed aims? Have the investigators included plans to address weaknesses in the rigor of prior research? If the project uses large clinical imaging datasets, how will it move the field forward? Have the investigators presented adequate plans to address diversity in subject recruitment, as appropriate?
Reviewer Comments
Environment (Score 1-9)
Are the institutional support, equipment, and other physical resources available to the investigators adequate for the project proposed?
Reviewer Comments

Overall impact score (1-9)

Reviewers will provide an overall impact score to reflect their assessment for the project to meet the goals of the Aldon Mark Berger Mental Health Imaging Research Grant and to exert a sustained influence on the research field. An application does not need to be strong in all categories to be judged likely to have major scientific impact. For example, a project that by its nature is not innovative may be essential to advance a field.

Reviewers will evaluate the following additional items while determining scientific and technical merit, and in providing an overall impact score, but will not give separate scores for these items.

Inclusion of Women, Minorities, and Individuals Across the Lifespan

Does the proposed project involve human subjects and/or NIH-defined clinical research? Do the plans provide for the inclusion (or exclusion) of individuals based on sex/gender, race, and ethnicity, as well as the inclusion (or exclusion) of individuals of all ages (including children and older adults) to determine if it is justified in terms of the scientific goals and research strategy proposed.

Vertebrate Animals

The committee will evaluate the involvement of live vertebrate animals as part of the scientific assessment according to the following criteria: (1) description of proposed procedures involving animals, including species, strains, ages, sex, and total number to be used; (2) justifications for the use of animals versus alternative models and for the appropriateness of the species proposed; (3) interventions to minimize discomfort, distress, pain and injury; and (4) justification for euthanasia method if NOT consistent with the AVMA Guidelines for the Euthanasia of Animals

Reviewer Comments

NIH SCORING RUBRIC

Impact	Score	Descriptor	Additional Guidance on Strengths/Weaknesses
High	1	Exceptional	Exceptionally strong with essentially no weaknesses
	2	Outstanding	Extremely strong with negligible weaknesses
	3	Excellent	Very strong with only some minor weaknesses
Medium	4	Very Good	Strong but with numerous minor weaknesses
	5	Good	Strong but with at least one moderate weaknesses
	6	Satisfactory	Some strengths but also some moderate weaknesses
Low	7	Fair	Some strengths but with at least one major weakness
	8	Marginal	A few strengths and a few major weaknesses
	9	Poor	Very few strengths and numerous major weaknesses
<p>Minor Weakness: An easily addressable weakness that does not substantially lessen impact.</p> <p>Moderate Weakness: A weakness that lessens impact.</p> <p>Major Weakness: A weakness that severely limits impact</p>			