

Fall 2024 BHI-CAHBIR Pilot Research Mini-Grant Voucher Program for RBHS Faculty

The Rutgers Brain Health Institute (BHI) and the Center for Advanced Human Brain Imaging Research (CAHBIR) are pleased to announce the availability of \$20,000 Pilot Research mini-grants to fund RBHS faculty in initiating neuroimaging research at CAHBIR.

Objective: There are often barriers to initiating neuroimaging research, including the expense of collecting pilot data, and the need for methodological skills in designing experiments and analyzing data. The **Pilot** mini-grant voucher program is aimed at aiding RBHS faculty in developing new neuroimaging research projects that make use of CAHBIR facilities, with the goal of facilitating pilot data that will be used in subsequent federal grant applications.

Research and Training Pilot Mini-grant: These grants serve the dual purpose of providing funds for pilot neuroimaging studies, while simultaneously providing training that will allow a lab to work more independently on future projects. To facilitate training, a 10-hr workshop aimed at familiarizing researchers with MRI scanning, image processing and analyses will be offered. Voucher funds can be used towards attendance at these workshops. Voucher funds can also be used for one-on-one sessions with CAHBIR staff aimed at implementing the funded research project and providing assistance with study design and data analysis.

Human Brain Imaging Core facility capabilities: A state-of-the-art research-dedicated 3T Siemens Prisma scanner with 64 and 20 channel head/neck coils, MRI-compatible visual/auditory stimulation and behavior/physiological response equipment including eye tracking, mock scanner and a contrast agent injector. As of April 2024, we now offer EEG and rTMS in a shielded room. The core facility also provides expert technical support to users with all levels of experience. More information about CAHBIR resources and services are available at <https://sites.rutgers.edu/cahbir/>.

Eligibility: Eligibility for these funds is limited to principal investigators who: 1) are full-time tenure-track or tenured faculty in RBHS; 2) do not have currently available startup or retention package funds, 3) do not have currently funded grants for human neuroimaging studies; and 4) have not been a recipient of an earlier CAHBIR pilot award. Individuals who do not meet eligibility criteria are allowed to serve as co-investigator on proposals but cannot serve as the principal investigator for the proposal.

Number of grants available: Up to 4 awards are available.

Application format and budget preparation: Applicants should provide a 3-page description of the proposed research that includes specific aims, and a significance statement. Within the research description, please describe explicitly how the pilot funding will promote future research and grant proposals. In addition to the 3-page research description, applications should include Literature Cited, Budget, and NIH Biosketches for key personnel. The application should be single-spaced and use font/size Arial 11 with 0.5 inch page margins. All applications **must include** the Cover page and submission template linked her ([BHI-CAHBIR-Application-Cover-Page-2024f.docx](#)). The application should be combined into one PDF document with the Cover page in the front.

Budgets: No exchange of funds will be utilized for this mechanism. Rather a voucher will be provided for CAHBIR scanner reservations and services. At least 75% of the budget must be allocated for scanner reservations, which are billed at a rate of \$745/hr, which includes the MRI Technologist. Other planned expenses may include technical support (protocol design and set up or Luci/Zald consultation at \$200/hr, programming and analyses or specific training in using equipment at \$140/hr). A data archiving fee of \$20 per subject should be included for every scan. Additionally, because of the computational demands (on google cloud services and Amarel), a one-time fee of \$250 should be budgeted if CAHBIR is assisting with analyses. Studies should budget for neuroradiological reads of incidental findings (\$60) based on expected rates of such findings in the population being studied (recommended budgeting of 5% of young healthy subject samples, and a minimum of 20% of older samples). A mock scanner is available for acclimating participants to the scanner environment (\$40 per hour) and is recommended for studies with children or highly anxious individuals and saves money from subjects who withdraw from MRI studies due to claustrophobia. \$500 per attendee should be

budgeted for the MRI workshop provided annually by CAHBIR faculty) Because technical services are unreimbursed effort, a maximum of 15 hours total is allowed. All other expenses, including subject participation reimbursements, parking fees, and technical services beyond 15 hours must be provided for by the PI.

Mock Budget- one year	Number	Cost
Workshop (\$500 per attendee)	2 attendees	\$1,000
CAHBIR Technical Support: Protocol design/setup (\$200 hr)	4 hours	\$800
CAHBIR Technical Support: Programming/analysis (\$140 hr)	15 hours	\$2,100
Scanner Reservation (\$745 hr)	20 hours	\$14,900
Neurological Read/Incidental Findings (\$60 per read)	2	\$120
Data archiving (\$20 per subject)	20 subjects	\$400
Computing fee	1 time	\$250
EEG (\$50 per hour)	-	-
rTMS (\$145 per hour)	-	-
Total pilot voucher award requested		\$19,570

RAPSS submission and IRB approvals are not required at the time of initial mini-grant application submission.

The principal investigators of meritorious applications, selected from the scientific review, will be asked to obtain IRB approval for the proposed pilot project **within four months** of being informed of the scientific review results. Vouchers will not be awarded for any purposes prior to obtaining IRB approval.

CAHBIR staff will provide assistance in developing documents for the IRB, especially as it relates to MRI procedures, risks, incidental findings, and analyses. The process of IRB approval once a protocol is submitted can take 8 weeks or longer. Regardless of the speed of the IRB, it will be the responsibility of the applicant to obtain the IRB approval within four months of award notice; therefore, it will be critical to begin the IRB application and submission process as soon as your project is selected and respond in a timely manner to address issues raised by the IRB. Because the funding for these mini-grant vouchers is not open ended, studies that do not obtain IRB approval within 4 months may not be able to receive vouchers.

Review process: All mini-grant applications will undergo a review process organized by BHI/CAHBIR. They will have an initial review to judge scientific quality and be assigned a priority score by reviewers. Reviewers may be internal or external to Rutgers but will not be from the same primary department as the applicant. They then will be reviewed by an internal BHI/CAHBIR committee to allocate funds consistent with the long-term strategies for developing human brain imaging research at Rutgers. A main factor in determining funding will be perceived likelihood that the pilot data generated will lead to external funding. Applicants will receive brief written reviewer critiques.

Post-award reporting: The pilot voucher awardees will be asked to provide evidence of related extramural grant applications within a year of completion of the award, and outcomes within two-years of the award to gauge the success of the program. All pilot awardees will be required to submit a final progress report within 6 months of the end of the award. This report will include the status of manuscripts arising from the pilot award and grant applications

submitted, as well as results obtained and significance of those results. Awardees must acknowledge the BHI-CAHBIR pilot grant program in publications or presentations that result from the pilot grant project. Awardees must also report any extramural awards received as a result of the pilot grant project.

Submission deadline: Applications are due by Oct 15, 2024. Awards will be announced by Dec. 1, 2024. Submissions received after Oct 15, 2024 will only be evaluated if vouchers remain after evaluation of on-time applications.

Questions: Questions about the proposals should be directed to david.zald@rutgers.edu