

Center for Artificial Intelligence Research Request for Applications for Pilot Awards

Purpose

The [Center for Artificial Intelligence Research \(CAIR\)](#) is seeking proposals for projects for innovative and translational artificial intelligence solutions to medical and health-related problems. The goal of the pilot project is to allow investigators to pursue novel and innovative ideas that will improve the likelihood of obtaining extramural funding. The funding is also meant to allow investigators to perform critical experiments, access core facilities or improve analyses that address specific critiques raised by reviewers for extramural funding.

Up to two projects will be funded. Successful pilots will receive up to \$40,000 to be spent within a 12-month project period. Completed applications are due December 13, 2024 (see below). Sub awards, rollovers and no-cost extensions will not be allowed.

Successful proposals may include:

- Applications with or leverage funding from Centers
- Applications from junior faculty
- Utilization of the Center core facilities
- Applications with multi-PIs, cross-departmental and new collaborations
- Methods to create, evaluate, or implement medical science and artificial intelligence tools and algorithms
- A rationale for local relevance and potential for generalizability
- Describe how the proposed project advances research in the above-mentioned areas
- Explain translational roadblocks that the proposed project will address and the anticipated benefits of overcoming them with AI.
- Define a reasonable project plan that is feasible to complete in the project period

Additionally, successful proposals will exemplify the following characteristics:

- Propose a data science-focused research problem.
- Explain why the research is important, novel, and had the potential for impact.
- Explain why the team and the research are interdisciplinary and how that interdisciplinarity adds to the research team's capability.
- Propose an actionable component related to health equity.
- Explain the research aims clearly, compellingly, and understandable to the general scientific community.

Eligibility

These awards are open to investigators with faculty rank across the Southeast region of Advocate Health. This includes Atrium Health, Atrium Health Navicent, and Atrium Health Wake Forest Baptist, including Wake Forest University School of Medicine. All applicants must be members of [CAIR](#). The collaborative research team must include CAIR members.

Key Dates

Date	Detail
12/13/24, 11:59 pm	Application Deadline
02/01/25	Selection of Awardees
03/01/25	Project Start Date
02/28/26	Project End Date

Funding

The Center for Artificial Intelligence Research will fund up to \$40,000 in direct costs per project. See section on Budget Guidelines for more details on allowable and non-allowable budget items. Since the Center for Artificial Intelligence Research funds cannot be carried over from one budget period to the next, requests for rollover or no-cost extensions will not be approved.

Application Procedure

Investigators are invited to apply by submitting their complete application through the [ePilot](#) electronic submission system, by the deadline noted above. Application instructions are summarized below.

Complete Application Deadline: 12/13/2024 by 11:59 pm

Format Specifications

- Arial font and no smaller than 11 point
- Margins at least 0.5 inches (sides, top and bottom)
- Single-spaced lines
- Consecutively numbered pages

Submission/Applicant Information

- Project Title
- Submitting Investigator, Co-Investigator(s), and other Key Personnel information

Abstract (300 words max)

- Should be readable by a non-technical audience

Research Plan (6 pages max)

- *Specific Aims*
- *Significance* – Explain how the project addresses an important problem, how it will improve scientific knowledge, technical capability, and/or clinical practice.
- *Investigator(s)* – Describe how each member of the team will contribute to the project. Include their expertise and experience that will be utilized on this project.
- *Innovation* – Explain how this project uses novel concepts, approaches or methodologies, instrumentation, or interventions.
- *Approach* – Describe the overall strategy for this project, including potential problems, alternative strategies, and benchmarks for success.
- *Projected Timeline* - (examples can be found in Appendix I)
- *Identify if application is under submission or submitted for other Center awards*

References (no page limit)

Information Regarding Human Subjects

Address the following if the project **involves human subjects**.

- Provide a one-page document addressing the Protection of Human Subjects, if applicable.
- IRB Approval Status (please note: IRB approval is not required for full application submission, however **a delay in IRB approval does not alter the project end date**)

Information Regarding Live Vertebrates

- IACUC Approval Status (please note: IACUC approval is not required for full application submission, however **a delay in IACUC approval does not alter the project end date**)

Budget and Justification (budget template plus 1-page justification)

- Complete the [budget template form](#) provided along with a brief justification for the funds requested for this RFA. Please include an explanation of other resources that may be leveraged to support the project.
- Sub-awards to other institutions to carry out work on a project are not allowed.

NIH-style biographical sketch for all Key Personnel (new style)

Appendix information is limited to:

- A Summary Statement from the previous grant submission justifying the need for additional experiments.
- Reviewer Comments from the previous manuscript submission justifying the need for additional experiments to secure a high visibility publication.

Budget Guidelines

The budget period is for **12 months** ending no later than 02/28/26. Up to \$40,000 in direct costs may be requested. As stated above, rollover and no-cost extensions will not be allowed.

Grant funds may be budgeted for:

- Salary support for the PI or faculty collaborators (using NIH salary cap)
- Research support personnel (including undergraduate and graduate students)
- Travel necessary to perform the research
- Small equipment, research supplies and core lab costs, or
- Other purposes deemed necessary for the successful execution of the proposed project

Grant funds may **not** be budgeted for:

- Office supplies or communication costs, including printing
- Meals or travel, including to conferences, except as required to collect data
- Professional education or training
- Computers or audiovisual equipment, unless fully justified as a need for the research
- Manuscript preparation and submission, or
- Indirect costs

Awarded funds must be used to conduct the work proposed. All direct charges to this award must adhere to federal regulations and requirements regarding the use of CAIR funds. The Center for Artificial Intelligence Research reserves the right to revoke funding if it is determined that funds were not spent in accordance with the approved protocol. The general criteria for determining allowable direct costs on federally sponsored projects is set forth in 2 CFR Part 200: Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (The Uniform Guidance).

Multiple Submissions

The PI must identify whether the application is submitted to CTSI or other Wake Forest School of Medicine Centers for consideration of funding.

Review Criteria and Process

CAIR proposals are competitive and peer reviewed. Proposals will be evaluated by CAIR Pilot Fund Committee members based on NIH review criteria and scoring. Final award approval will be at the recommendation of CAIR Pilot Fund Committee.

Funding decisions will be made based on the reviews of an evaluation of the projects' connection with the goals of the Center for Artificial Intelligence Research. Any IACUC and/or IRB protocols must be approved prior to funding of the approved pilot.

Reviewers will score applications from 1 to 9 based on:

1. Significance of the problem to be addressed
2. Innovation in the proposed solutions
3. Strength and breadth of the investigative team
4. Methodological rigor and feasibility with clear milestones
5. Likelihood the innovation will be broadly applicable and have impact on translational research, and
6. A reporting plan regardless of whether the study yields positive or negative results
7. Other elements to be considered in the review include: the likelihood that the investment will lead to external funding or a licensable innovation, early-career faculty involvement, race/gender inclusiveness of the research team and inclusion of women, minorities, older adults, and children as potential participants.
8. Clear and understandable communication of the proposed idea

9. Attention and actionable plan with respect to diversity, equity, and inclusion in the research

Program Expectations

If any significant issues arise, the study team will be required to work with the Center for Artificial Intelligence Research to define an intervention strategy for the study to be successfully completed (or in rare cases, terminated).

Specific Deliverables Include:

- Disclosure of implementation/dissemination results and efforts to seek extramural funding beyond the pilot grant and subsequent notification of any funds obtained and/or related publications or significant collaborations from the project for a minimum of 4 years.

Other Guidelines

1. Prior to receiving funds, research involving human subjects must have appropriate approvals from the IRB. Either an IRB approval letter or an IRB response to a “Determination Whether Research or Similar Activities Require IRB Approval” must be submitted to the Center for Artificial Intelligence Research prior to funds being released. Human subjects must be reviewed in accordance with the institution’s general assurances and HIPAA. All key personnel must have certification of training in the protection of human subjects before the grant period starts.
2. Prior to receiving funds, research involving live vertebrates must have appropriate approvals from IACUC. Either an IACUC approval letter or documentation on why activity does not require IACUC approval must be submitted to the Center for Artificial Intelligence Research prior to funds being released.
3. CAIR staff will work closely with funded teams throughout the grant period to monitor progress and, when necessary, provide assistance. A final progress report will be required. We expect PIs to report over the lifetime of the work the outcomes achieved due to the pilot award, e.g., subsequent external funding, publications, presentations, and patents.
4. All publications that are the direct result of this funding must reference: “Research reported in this publication was supported by the Center for Artificial Intelligence Research at Wake Forest School of Medicine.” Publications must also be registered in PubMed Central.
5. Any awardee who leaves their position should contact the Center for Artificial Intelligence Research to discuss future project plans.

Grant Administration

The Principal Investigator is responsible for the administration of grant funds. Projects will be for a **12-month** period of time.

Contacts

Questions about your research project should be directed to CAIR (cair@wakehealth.edu) or Latrice Harris at latharri@wakehealth.edu.

Questions about the ePilot electronic submission system should be directed to Katelyn Still at kastill@wakehealth.edu.

Appendix I

Below are examples to show different methods to provide study milestones, outcomes, and timeline. However, these formats are not required.

Example 1:

- **Milestone 1 (0-1.5 months):** Milestone 1 Details **Outcome:** Outcome 1 Details
- **Milestone 2 (1.5- 4 months):** Milestone 2 Details **Outcome:** Outcome 2 Details
- ...

Example 2:

Timeline and Milestones				
Quarters	1	2	3	4
Activity/Aim/Milestone 1	X	X	X	
Activity/Aim/Milestone 2	X	X		
Activity/Aim/Milestone 3		X	X	X