

NEW PILOT FUNDING OPPORTUNITY TO SPARK CLINICAL AND TRANSLATIONAL SCIENCE INNOVATION USING ARTIFICIAL INTELLIGENCE (AI)

Title:	Enhancing Translational Impact: Integrating Artificial Intelligence (AI) for Improved Health Outcomes
Available Funds:	Up to 4 pilot awards at \$25,000 to \$50,000 each
Funding Period:	January 1, 2027 - December 31, 2027
Application Deadline:	Monday, August 17th, 2026 at 11:59 PM
Funding Source:	Clinical and Translational Science Collaborative of Northern Ohio at Case Western Reserve University

The Clinical and Translational Science Collaborative (CTSC) of Northern Ohio, anchored at Case Western Reserve University (CWRU), requests applications for pilot research funding to enhance and grow CTSC activities in the application of Artificial Intelligence (AI).

AI, including machine learning (ML), neural networks, large language models (LLM) and other advanced intelligence systems have become a cornerstone of modern clinical and translational research due to its unparalleled capacity to interpret and synthesize data characterized by high volume, velocity, and variety that exceed human manual capabilities. Yet their integration into clinical and translational research must be grounded in rigorous clinical validation and high methodological and scientific quality. Ultimately, transformative research requires that AI tools are not only efficient but also fit for purpose and verified through feasibility and proof-of-concept studies to ensure the reproducibility and reliability of scientific findings within real-world clinical and translational frameworks.

This themed pilot invites clinical and translational research projects centered around the science of evaluating and implementing AI in real-world clinical and translational workflows, with an emphasis on feasibility, methodological proof-of-concept, early validation, workflow studies, fairness analyses, implementation science, or preliminary data generation. **Projects should be right-sized projects for a one-year pilot mechanism that positions the work for larger follow-on funding.**

These goals are in alignment with the NIH and NCATS Clinical and Translational Science Awards (CTSA) Program. All are broadly committed to accelerating clinical and translational research to address the significant burden of chronic health conditions in Northern Ohio and are compatible with the Clinical and Translational Science Collaborative (CTSC) of Northern Ohio's mission: to be a catalyst for high-quality science and transformative research that improves regional and global health.

References to AI in the following RFA include any type of advanced intelligence system, technology or approach, including but not limited to machine learning (ML), large language models (LLM), generative AI, neural networks/deep learning, natural language processing (NLP), computer vision, and/or robotic process automation (RPA). We encourage the use of institutionally supported/secure environment tools for projects.



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The CTSC is interested in elevating strong proposals aimed at validation, reproducibility, fairness, governance, and prospective monitoring in the three main areas of interest listed below:

1. Novel AI-enabled research methods
2. Responsible evaluation and governance
3. Real-world implementation and translational impact.

Here is a list of current CTSC-related topics to assist in generating ideas:

- **AI Feasibility and Proof of Concept Studies:** This area serves as the primary engine for the CTSC's catalytic mission. By generating critical preliminary data, these studies unlock the latent potential of existing knowledge—verifying that AI applications, such as diagnostic tools or predictive models, are both methodologically rigorous and ready for real-world implementation.
- **Clinical Trial Design Innovation:** This area is fundamental to the CTSC's role in advancing innovative, multi-center clinical studies. AI protocol optimization increases the accuracy of forecasting enrollment success, compared to traditional methods, ensuring that research is both efficient and high-quality.
- **Agentic AI and Autonomous Agents:** Acting as a catalyst for transformative research, agentic AI can autonomously orchestrate discovery workflows, turning research results into real-world applications.
- **Federated Learning and Data Privacy:** The CTSC requires cross-disciplinary and inter-institutional collaboration involving two or more partner institutions. Federated learning is a transformative research area that allows these institutions to collaborate and train AI models without sharing raw patient data, thereby protecting privacy while scaling impact.
- **Precision Medicine and Multi-Omics Integration:** This area aligns with the goal of transformative research by integrating genomic, clinical, and lifestyle data to identify unique phenotypes. The CTSC focuses on these high-impact topics, including the microbiome, to move toward highly personalized diagnosis and therapy.
- **Explainable AI (XAI) and Transparency:** High-quality clinical and translational science requires results that are traceable, interpretable, and ethically sourced. Research into XAI directly supports the CTSC's goal of improving the reproducibility and reliability of scientific findings, which is essential for clinician and regulatory acceptance.
- **Accelerated Drug Discovery and Lead Optimization:** A key focus topic by the CTSC, AI in drug discovery can compress workflows that once took months into hours. This accelerated pace expedites the delivery of safe, effective medicines to patients in Northern Ohio and beyond.

Important Details and Requirements:

- 1) Applicants must have a themed pilot consultation with CTSC Pilot Module staff/faculty as they prepare their applications.
 - a. To begin the consultation process, visit <https://sparc.case.edu>>Funding Opportunities>Themed Pilot. If you do not have a SPARC account, you will need to create one to submit a consultation request.
- 2) The CTSC seeks applications from faculty at:



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- Case Western Reserve University,
 - Cleveland Clinic,
 - MetroHealth Medical Center,
 - University Hospitals Cleveland Medical Center,
 - Louis Stokes Cleveland Veterans Administration Medical Center,
 - Northeast Ohio Medical University,
 - University of Toledo
- 3) We intend to award up to four pilot grants, with award amounts of \$25,000 to \$50,000 each.
 - 4) As with all CTSC activities, and to enhance collaborations among partners, proposed studies must include *at least two different CTSC institutions OR one CTSC institution and a community partner*. Community engagement, including county health departments, is encouraged, and community collaborators should be listed as co-I on the study and help co-design the proposed study.
 - 5) Applications must be submitted electronically no later than **AUGUST 17, 2026 at 11:59PM** via InfoReady at <https://cwru.infoready4.com/#freeformCompetitionDetail/2014132>
 - 6) Successful applicants will be notified on or around the end of October 2026, and if all requirements are met, funding could begin **as early as Jan 1, 2027**.
 - 7) Applications must meet all general requirements unless an exception is noted. Applications not meeting the requirements may be returned and not reviewed.
 - 8) Applicant's project must address the topic areas and other requirements of the funder to be considered for a pilot grant award.
 - 9) Awards will be based on a combination of meritorious proposals and priorities of the funder. Should there be no applications that meet the criteria set, the funder has no obligation to fund an application.
 - 10) This award will allow for one travel exception for a trainee involved in the project to present the research at a national meeting.
 - 11) Case Western Reserve University will serve as the fiscal entity through which each award will be distributed and administered. Awardees will receive additional information regarding the disbursement workflow.

General Requirements

Eligible applicants

- Principal Investigators (PIs) must have a PhD, MD, JD, PharmD, PsyD, DNP, or equivalent doctoral-level degree and have a faculty appointment at CWRU or one of the CTSC partner institutions, including: University Hospitals, Cleveland Clinic, Veterans Affairs Northeast Ohio Health System, MetroHealth, Northeast Ohio Medical University, or the University of Toledo.
- Faculty from any CWRU school is eligible to apply for this funding in addition to the School of Medicine (provided they meet the eligible applicant criteria listed above).
- Co-PIs are permitted, but each applicant must submit only one application as PI or co-PI.
- Interested prospective applicants who do not have doctoral-level degrees (e.g., non-clinical staff with master's degrees, undergraduate degrees, high school diplomas, or the equivalent) are highly encouraged to apply by collaborating with a PI.



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- The institution of record will be the PI's primary institution. If the application has two co-PIs, one should be designated as the contact PI, and their institution will act as the primary institution of record.
- PI, co-PI(s), and study team members should involve interdisciplinary institutional departments, as appropriate, in the development of their pilot proposal.
- Early-stage investigators are encouraged to apply

IRB

- Studies involving human subjects must have IRB approval by December 1, 2026 before funds will be released, and will not change the expectation for significant progress to be made within three-to-six months. The likelihood of gaining IRB approval promptly will be considered as part of the feasibility criteria.

Budget Considerations (see Appendix I)

- Indirect costs are not permitted.
- Maximum of \$5,000 in salary support for established investigators. There is no salary limit for early-stage investigators (early-stage is defined as "has not been a PI for a substantial NIH research award").
- **Allowable Costs:** recruitment materials; rental of UH Mobile Research Unit; study supplies; community member consultant fees; consumable equipment and/or technology with justification for use in the project; space rental fee; food for events specifically outlined in the application. This award will allow for one travel exception for a trainee involved in the project to present the research at a national meeting.
- **Unallowable costs:** tuition, travel, publication costs, conferences, equipment that is not consumed by the project
- A signed community partner Statement of Procedure will be required if any funds are going to the community partner.
- Budget for supplies and investigative purposes must be well justified.
- All award funding **must be spent by December 31, 2027**. No-cost extensions (i.e., the project end date will not be extended, nor will the funder add additional funds to cover the extension) will **not** be granted.

Application Process - PLEASE READ CAREFULLY

Application must be submitted electronically **no later than Monday, AUGUST 17, 2026, at 11:59PM** via InfoReady at <https://cwru.infoready4.com/#freeformCompetitionDetail/2014132>

1. Schedule and complete the themed pilot consultation with CTSC Pilot Module staff as they prepare their applications.
 - a. Visit <https://sparc.case.edu>>Funding Opportunities>Themed Pilot to begin the consultation process.
2. SPARC is the CTSC's service request system and will issue a Project ID number for the consultation.
3. After scheduling your consultation, the Project ID number issued to your project will also be the ID number used when applying for the Rural Health-themed pilot in the InfoReady system (CWRU grants management platform).



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4. Navigate to InfoReady to submit your application:<https://cwru.infoready4.com/#freeformCompetitionDetail/2014132>

Preparing the Submission

You will complete the submission in the InfoReady system by answering questions and attaching documents.

Formatting

- Please review the online submission form before preparing your final documents.
- All uploaded documents must be in Portable Document Format (PDF).
- Please use size 11 pt. Arial font with 0.5” margins.
- Maintain margins and adequate spacing between paragraphs and note the maximum length for each document.

Information and Documents

- A short summary of the work directed to the general public (i.e., plain language summary) (500 characters, including spaces)
- Specific aims (1 page, uploaded as a PDF)
- Significance and urgency, specifically addressing how this project will advance AI applications in real-world translational and clinical research (1 page, uploaded as PDF)
- Research Strategy (maximum three pages, uploaded as PDF) that includes:
 - Study design, hypothesis, and expected results
 - Study population
 - Approach (methods, data collection, measures, analyses)
 - Investigative team
 - Feasibility
 - Dissemination and implementation plan and next steps (i.e., extramural funding)
- References or URLs (maximum 10 references, uploaded as a PDF)
- Study timeline and deliverables (applicants must show significant progress within three-to-four months), including plan and timeline for dissemination of research findings and for seeking extramural funding (1 page, uploaded as PDF)
- Figures may be included as appendices (maximum two pages total for appendices)
- If human subjects are involved, an approved Institutional Review Board (IRB) or a copy of the IRB application must be included with the application as an uploaded PDF.
- Detailed budget (please download and complete the NIH budget form)
 - **Note:** The fringe rate for CWRU salaries (if applicable) is the current non-federal rate of 34.75%. If you have non-CWRU personnel paid on your grant, please use that institution’s fringe rate.
 - **Note: There are no Indirect Costs associated with this award.**
- Budget justification (provide description and rationale for each expense listed in the budget)
- NIH-format biosketches for personnel (maximum five pages per biosketch uploaded as a single PDF)



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- Letter(s) of support/commitment (as applicable) (maximum five pages, maximum one page per letter uploaded as a single PDF)

Review Process

- Proposals will be reviewed by a scientific review committee composed of reviewers from each institutional partner, and may include the community at large. CTSC staff will provide administrative oversight throughout the review process to ensure a standardized review process.
- Reviews will be conducted using the Simplified NIH-style scoring methods
- The committee will take the following into consideration:
 - Clear articulation of the problem being addressed in the proposed project,
 - Demonstration of how the proposed work may directly contribute to developing new knowledge toward addressing rural health conditions and concerns,
 - Significance, innovation, and timeliness,
 - Expertise of the investigative team and evidence of commitment of investigators and stakeholders to collaborate,
 - Feasibility,
 - Evidence of tangible deliverables, a timeline, dissemination, and implementation plans, and plans for future funding,
 - Likelihood of future success,
 - Budget and budget justification,
 - Dissemination of research findings at a CTSC Forum.

APPENDIX I

CATEGORY OF EXPENSE	ALLOWABLE REQUEST ON PILOT PROJECT?
Books, Subscriptions	No
Computers, Laptops	No
Consultative Services	Yes
Equipment	No; though equipment and/or technology may be allowable with justification for use in the project, but must be consumed by the project
Expenses in Obtaining a Visa	No
Graphics, Photography Charges	No
Indirect Costs	No
Lab Tests - Clinical	Yes, justify and verify the costs with the laboratory
Lab Tests – Research –Core Services	Yes, justify and verify the costs with the laboratory
Malpractice Insurance	No
Membership Dues	No



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Office supplies	No
Parking Fees	No
Personnel Recruitment	No
Personnel:	
Principal Investigator/ Co-investigator Salary /Fringes	Maximum of \$5,000 in salary support for established investigators who do not currently have active NIH support as a PI or co-PI; established investigators with active NIH support as PI or co-PI are ineligible for salary support. There is no salary limit for early-stage investigators (early-stage is defined as "has not been a PI for a substantial NIH research award").
External Employee	No
Technical Support Personnel (study coordinator, lab tech, nurse, procedure tech, student)	Yes, up to \$20,000/year (before fringe benefit costs) to support research assistants or personnel
Publication Costs and Reprints	No
Receptions and Meals	No
Scientific Meeting Fees and Expenses	No
Service Contracts for Equipment Maintenance	No
Software Packages	Yes, if unavailable and essential to the project/strong justification is required.
Space Alterations and Renovations	No
Stipend for Medical Students	Only if they are research personnel
Subject Participation Reimbursement	Yes
Lab Supplies, Disposables.	Yes, provide detailed justification – must be relevant to the proposed research and must be “consumed” by the project.
Telephone Long Distance (related to project)	No
Travel – Domestic or Foreign	No, this award will allow for one travel exception for a trainee involved in the project to present the research at a national meeting.
Tuition Costs	No
Uniforms, Wearing Apparel	No
ANY NON-LISTED ITEM OR CATEGORY	Please contact the CTSC office.