

Information Session

Clinical and Translational Science AI Innovation Award Program (CTS-AI)

Sept. 16, 2026



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Advancing Today's Discoveries to Improve Health for All

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About CTSI: Background

- Collaboration of The Ohio State University, Wexner Medical Center and Nationwide Children's Hospital
- Part of a national network of 60+ leading medical institutions funded by the NIH National Center for Advancing Translational Sciences (NCATS)
- Established in 2008
- Aims to accelerate the translation of research discoveries into improved health care by:
 - Providing programs, services, funding, and more to support scientists, investigators and clinical research professionals
 - Reducing operational, administrative and scientific barriers
 - Enabling interdisciplinary and community-engaged research across the translational science spectrum



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About CTSI: Resources (partial list)

Data and AI

- LifeScale clinical data platform
- Data Core Services
- Data navigator
- Biostatistics navigator
- Microbiome navigator

Consulting

- Data ethics
- Community engagement
- Regulatory compliance

Much more at ctsi.osu.edu



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Purpose of the CTS-AI Award

To fund a highly meritorious, interdisciplinary *translational science* project to develop novel AI/data science tools that advance health for all.

Award

- 2 years
- Up to \$125,000 per year in direct costs
- Maximum total amount: \$250,000



Applicant Requirements

- MPIs:
 - PI status at OSU or NCH
 - Members of CTSI (join at ctsi.osu.edu)
 - Cannot have had a CTSI Pilot Award that activated on or after Aug. 1, 2025, or a CTS-AI Award that activated on or after Aug. 1, 2024
- All personnel: Complete all necessary research trainings (e.g., Responsible Code of Research, Human Subject Protection and Good Clinical Practice)



Proposal Requirements

- Include a **novel AI/data science approach/technology** that drives **translational science**
- Must be innovative, equitable and **generalizable**
- Clearly identify the translational research challenges or barriers being addressed
- Must be completed within two years. The NIH does not allow carryover or no cost extensions on these funds. Y1 funds cannot carry over to Y2.



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External Personnel and Services

- Use of CTSI funds to pay external collaborators or services is not permitted.
- External personnel may participate as *unfunded collaborators* in the role of Co-PI, Co-I or consultant.
- External collaborators may not serve as administrative PI.



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Translational Science Principles

- Address unmet needs
- Produce **generalizable solutions** for common and persistent challenges
- Leverage creativity and innovation in research design, conduct, and facilitating factors, with the goal of increasing the impact of the research
- Leverage cross-disciplinary team science
- Enhance the efficiency and speed of translational research
- Utilize boundary-crossing partnerships
- Use bold and rigorous approaches, including FAIR data and reproducible findings

ncats.nih.gov/about/about-translational-science/principles



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Previous recipient

“Implementation of Conversational AI for Parent-Reported Screening of Pediatric Language Disorder in the Family’s Home Language: Spanish Exemplar”

PROJECT AIMS:

- Build a Spanish-language exemplar
- Establish a **replicable method** for converting parent-report screeners into conversational, voice-based tools. The system’s planned modular design allows the same approach to be used for other languages, screeners, and pediatric conditions.



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Previous recipient

“Mitigating Disparities in AI Heart Failure Risk Prediction”

PROJECT AIMS:

- Develop and validate advanced heart failure risk prediction models using LifeScale multimodal data
- Systematically evaluate two innovative AI strategies to **set new benchmarks for healthcare AI**:
 - Strategy 1: Synthetic data generation framework using latent diffusion models to balance demographic representation while preserving data privacy and utility
 - Strategy 2: Population-Aware Mixture of Experts framework that combines population-specific and shared predictors to address demographic-specific risk patterns



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Evaluation and selection

- CTS-AI co-directors evaluate **pre-applications** for significance, innovation, relevance to CTSI's mission
- Selected pre-applicants invited to submit full applications
- **Full applications** are assigned to 1-2 scientific reviewers and 1 community reviewer
- All CTS-AI reviewers participate in study section that considers assigned reviewers' feedback, Overall and Translational impact, institutional context, relevance to CTSI's mission
- CTSI's Director/PI and CTS-AI co-directors assess top 3 proposals and select finalist
- CTSI Program Directors Council ratifies the selection

Reviewer Criteria

NIH Simplified Framework

- **Factor 1: Importance of the Research**
 - Significance, Innovation
 - Scored 1-9
- **Factor 2: Rigor and Feasibility**
 - Approach
 - Scored 1-9
- **Factor 3: Expertise and Resources**
 - Investigators, Environment
 - Evaluated as "appropriate" or "gaps identified," with explanation provided for "gaps identified"
 - No individual score
- **Overall Impact**
 - Likelihood for the effort to exert a sustained, worthwhile and powerful influence on society and/or the research field
 - Scored 1-9

Additional Criteria

- **Translational Impact**
 - Ability of the effort to contribute to the fields of translational science
 - Scored 1-9



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Timeline

Optional Ideation Session	Sept. 16
Pre-Application Submission Window Opens	Sept. 28
Mandatory Pre-Applications Due	Oct. 2
Invitations to Submit Full Application Sent	Oct. 14
Full Applications Due	Nov. 23
Notice of Intent to Fund Sent	February 2027
Mandatory CTSI Regulatory Consult Due	March 15, 2027
Submission to IRB Due	March 31, 2027
Documents for NCATS Prior Approval Due	June 1, 2027
Award Start Date <i>(contingent upon NCATS Prior Approval)</i>	Aug. 1, 2027



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