CTSI/MSOE Integrated Clinical and Research Ensemble Awards 2023 Request for Letters of Intent

RFA Focus: Clinical Problem Leveraging Deep Learning and MSOE Supercomputer Rosie

Funding Overview

The Clinical and Translational Science Institute (CTSI) of Southeast Wisconsin & Milwaukee School of Engineering (MSOE) are pleased to open a new cycle of support for the novel Team Science-Guided Integrated Clinical and Research Ensembles (Ensemble). For this RFA, applications should address an important unmet patient medical need by leveraging deep learning and machine learning. In order to be compliant with the MCW/MSOE Master Data Sharing Agreement, studies must use deidentified patient data from the Clinical Research Data Warehouse (CRDW). MSOE expertise and use of MSOE Supercomputer Rosie will be included in the initiative.

The mission of an Ensemble is to integrate clinical and research faculty, community stakeholders, and health system representatives in highly innovative and efficient units to address the unmet clinical needs of our patients and our communities.

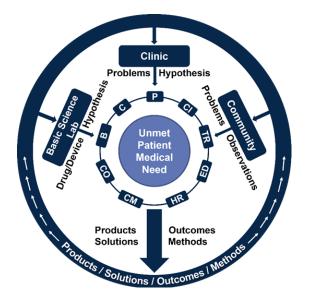
Ensembles are groups that may be comprised of appropriate basic science, clinical and translational investigators, clinicians, patients, patient advocacy groups, community stakeholders and health system experts (Figure 1) to provide solutions to unmet health needs emanating from the clinic, community, and laboratory (Figure 2). This design allows for identification of real unsolved patient care problems and provides the opportunity for the Ensemble members to develop a solution to these unmet patient needs.

Figure 1:



- P: Patient
- CI: Clinical Investigator
- TR: Translational Investigator ER: Enabling Discipline Researcher
- HR: Health System/Hospital Representative
- CM: Community Member
- CO: Community/Population Health Researcher
- B: Basic Science Researcher
- CI: Clinician

Figure 2: Functional Relationship of Ensemble, Clinic, Community, and Research Laboratory



Submission Details and Deadlines

Letter of Intent: Due by March 22nd, 2023

Please send a Letter of Intent (no more than one page) that indicates a team leader and potential team members and describes an important unmet patient medical need. Send Letter of Intent to Braxton Keil (bkeil@mcw.edu) by March 22nd, 2023.

Proposal Development

A CTSI Project Manager will be assigned to each team and will provide further details on the Ensemble process and assist in scheduling team meetings and providing guidance on the development of an Ensemble proposal. A complete proposal will (1) describe the importance of the unmet patient medical need, (2) describe a robust team with diverse stakeholder composition, and (3) describe potential products that result from the Ensemble's research, e.g., a device, clinical process, medication, biomarker, clinical trial, extramural grant, technology, or programmatic shift, etc. Proposals should be 3-5 single-spaced pages and include no more than one page of citations. No budget required at the time of submission.

Project Period

Once funding is approved, Ensembles will begin working on the delivery of potential products and provide an annual progress report. The Ensemble Review Committee will evaluate the annual progress report, and contingent upon adequate progress, funding and Project Management support will be approved for another year.

Funded Ensembles

One Ensemble will be funded through this mechanism. The funded Ensemble will receive a \$50,000 line of credit and the support of a CTSI Project Manager. Available CTSI support will include: (1) Guidance to Create an Operational Plan, (2) Clinical Trial Protocol Development Support, (3) Clinical Trial Execution Support, (4) Biomedical Informatics Support, (5) Community Engagement & Research Support, and (6) Biostatistics Support. Available MSOE support will include: (1) Deep Learning Expertise and (2) the use of Rosie Supercomputer.

Eligibility

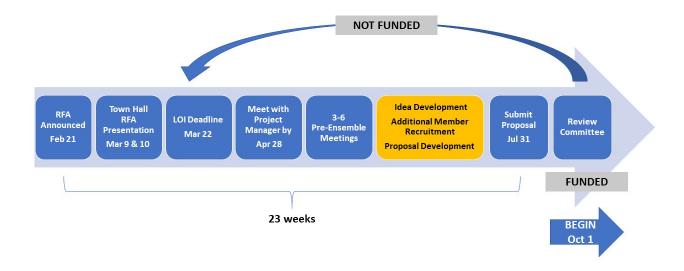
Investigators at all CTSI partner institutions are eligible to submit a Letter of Intent for this funding. However, submissions from partner institutions must include an MCW clinical faculty member as co-lead of the team at time of proposal submission.

Important Dates:

- February 21, 2023: RFA Release
- March 9, 2023: Town Hall at 10:00 am* Meeting Link
- March 10, 2023: Town Hall at 12:00pm* Meeting Link
- March 22, 2023: Letter of Intent (Required)

- <u>By April 28, 2023:</u> Meeting (Required) between Project Manager and LOI applicant/team to provide assistance for Pre-Ensemble formation and creating proposal
- July 31, 2023: Application Deadline (Allows ~4 months of Pre-Ensemble Development)
- October 1, 2023 Start Date

^{*}Attendance at one of the Town Halls is highly recommended but not required



Questions?

Please visit our website for more background information on Ensembles https://ctsi.mcw.edu/home/team-science-ensembles/ensemble-program-overview/

Additional questions can be sent to Braxton Keil (bkeil@mcw.edu)