

COGNITIVE EMPOWERMENT PROGRAM (CEP)

Call for Seed Grant Pre-Proposals

The number of individuals affected by **Mild Cognitive Impairment (MCI)** is increasing every year, with an estimated 15 to 20% of those over the age of 65 at risk of developing it. These individuals have increased problems with memory, problem-solving or spatial ability. The vision of the **Cognitive Empowerment Program (CEP)** is to revolutionize the experience of people affected by MCI by creating a comprehensive approach that can be replicated nationally and internationally. With funding from the Cox Foundation and in partnership with Emory Brain Health and the Goizueta Alzheimer's Disease Research Center, faculty from Georgia Tech and Emory have developed a ground-breaking new program that combines therapeutics, technology, data science and the built environment to improve the lives of people diagnosed with MCI. The CEP mission is to empower people with MCI and their care partners and families by creating a living lab that promotes joy, purpose, health and wellness through comprehensive lifestyle programs, technologies and physical environments.

With the aim of speeding up development, testing and dissemination of evidence-based interventions for MCI, the Innovation Accelerator (IA) core is offering seed grants to support research in the following areas: therapeutic programming, technology, and the built environment. The funded projects should result in innovative solutions, strategies or methodologies developed through a culture of collaboration among students, researchers, clinicians, and people with MCI in less than 12 months' time. This is the second year that **\$150,000 in seed grants will be available**.

Staff in the Innovation Accelerator Core will help successful applicants connect with people with MCI, care partners and staff and to access shared innovation space in the empowerment center at 6 Executive Park.

The CEP Seed Grants are intended to support the **creation, implementation, and testing** of novel ideas to achieve one or more of the following goals:

- **Engage** people with MCI and their care partners in developing strategies and/or solutions for improving their lives;
- **Create** proof of concepts for new technological innovations, environmental designs, and non-pharmacological interventions or programs that can be used by people with MCI around the world; and,
- **Generate data** that will support external funding proposals in MCI consistent with CEP's mission and vision.

Pre-proposals are sought that address any of the target domains of cognitive stimulation, functional independence, social engagement, physical activity, well-being, nutrition, art and education by supporting daily activities in the home and/or the empowerment center. While all proposals that support these goals will be considered this year, we are particularly interested in proposals that seek to increase our understanding of, and improve the quality of sleep in this population. Successful projects may explore home measurement of sleep, ways to improve sleep hygiene, characterization of and improvement of environmental conditions (esp. light and sound) and social factors that affect sleep for older adults living at home with mild cognitive impairment. Proposals may involve:

- **Built environment:** Evidence-based design strategies for interior and exterior built environments and products to support the independent, safe, joyful, engaged life of people with MCI and their families;
- **Technology:** Improve the lives of people with MCI and their care partners through the creation of non-intrusive and engaging interventions that guide and reinforce personalized therapy and support daily activities;

- **Therapeutic Programs:** Develop meaningful behavioral programs for individuals affected by MCI that are grounded in science and based on the unique needs of participants.

Proposals can range from semester to year-long research projects and smaller proposals can target funds to convene valuable discussions, gather data, develop methods and metrics or to prototype new designs and technologies.

TIMELINE

Call for pre-proposals released: June 29, 2020

Program info session: July 21, 2020 at 9am via BlueJeans <https://bluejeans.com/9277062884>

Pre-proposal due: August 12, 2020 by 5pm

Invitation for full proposals: September 4, 2020

Full Proposals due: October 12, 2020

Intent to fund announced: November 6, 2020

Funding received: Based on IRB approval (if required). Target January 1, 2021

Project completed: December 31, 2021

ELIGIBILITY

All applications should involve two or more investigators, with at least one faculty member from Georgia Tech and/or one from Emory. Additional collaborators from other organizations are encouraged, including but not limited to other academic institutions, non-governmental organizations, healthcare, and industry.

BUDGETS

The maximum award available is \$50,000 for any individual project; smaller scaled projects are encouraged to maximize the number of grants that can be awarded. The pre-proposal document needs to include an estimated total budget with a list of the type of expenditures, but no detailed budget justification is required at this stage. Overhead is not allowed on the seed grants.

REVIEW CRITERIA

Submissions will be reviewed based on the involvement of stakeholders, composition of the research team and potential for impacting the lives of people with MCI. In particular, the review committee will look at how teams anticipate working directly with individuals with MCI and parts of their care network (therapists, family members); the Innovation Accelerator team will facilitate access to these important stakeholders for requirements gathering, design and evaluation activities. Specifically, the peer review panel will evaluate proposals according to the following criteria, adapted from the NIH:

1. **Significance.** Does the project address an important problem or a critical barrier for people with MCI? Have people affected by MCI been involved in identifying this as an important issue? How will people with MCI be involved in the project? If the aims of the project are achieved, how will the lives of people with MCI be improved?
2. **Investigator(s).** Are the Principal Investigator (PI), collaborators and other researchers well suited to the project? Does the project team include people from both Emory and Georgia Tech? Is this a transdisciplinary collaboration? Does it create new collaborative relationships?
3. **Innovation.** Does the application challenge and seek to shift current understandings and approaches to empowering people with MCI? Are the concepts, approaches or methodologies, technologies, strategies or interventions novel to MCI?
4. **Approach.** Are the overall strategy, methodology and analyses well-reasoned and appropriate to accomplish the specific aims of the project? If the project involves human subjects research, are the plans for protection of human subjects from research risks justified in terms of the scientific goals and research strategy proposed?

All pre-proposals will be evaluated by a review committee comprised of representatives from all cores of the CEP and individuals affected by MCI. Feedback from the committee will be given to all pre-proposals. Those selected for full proposals will be contacted by the end of the day on September 4.

Note: For additional information or questions regarding the seed grant process email Kimberly.seaton@design.gatech.edu

PRE-PROPOSAL TEMPLATE

Proposed Project	
Proposal Name	
Proposal Number	<i>To be assigned upon submission</i>
Date Submitted	
Investigator(s) Name, Organization (Please attach CV or resume of PIs)	
E-Mails	
Phone/Extension	
Additional Collaborator(s) Name, Organization	
E-Mail	

Please complete the form below describing your proposal
1. Summary and Area of Interest
<p>i. Executive summary.</p> <p><i>Provide a brief description (no more than a page) of the proposed research project, including the key questions or goals, process and deliverables.</i></p> <p>ii. Lay summary</p> <p><i>Provide a brief description of the proposed project focusing on the anticipated outcome of the project. This will be shared with the members (people living with mild cognitive impairment) for their evaluation.</i></p>

iii. Primary area of interest: Technology Built Environment Therapeutics

2. Proposed Outcomes

i. What are the expected outcomes of the proposal, and what benefit will it bring to those with MCI?

Please describe what you hope to achieve with this project, and how it will promote the objectives of CEP. How will you measure success (i.e. what data will you collect?).

3. Collaboration and Involvement

i. In the interest of promoting a collaborative approach to research, how will this proposal effectively contribute to other areas of research, or involve other disciplines, organizations, or industry?

Describe how the proposal might promote collaboration inside and outside of CEP.

ii. How will this project involve adults with MCI and their care networks in the ongoing research?

Describe how you plan to involve people with MCI in defining the problem, developing solutions or programs and testing those solutions or programs.

4. Estimated Duration and Budget

i. Select or provide your estimated duration:

Semester 1-year Other: _____

ii. Expected budget: _____

iii. Budget categories (salary, tuition, materials, etc.):

Please submit completed PDF to Kimberly.seaton@design.gatech.edu by 5pm on August 12, 2020