UC San Diego is submitting a P30 Center Grant application to the National Institute on Aging (NIA) to create the University of California San Diego Claude D. Pepper Older Americans Independence Center (OAIC). Pepper Centers are centers of excellence in research and research education to increase scientific knowledge leading to better ways to maintain or restore independence in older adults. The Center’s theme will be Using Technology to Preserve Independence in Older Adults. Independence has multiple meanings for older adults generally relating to preserving autonomy, maintaining physical and mental capacity, and being able to competently conduct the tasks or activities that are necessary to remain independent at home (e.g., taking medications, dressing).

We are now soliciting letters of interest from investigators from for two types of awards to be included in the P30 proposal, which will be submitted to the NIA in October 2019. If the submission is successful, study funding would commence in approximately July of 2020. The proposed Center leadership from Engineering and Health Sciences will work together with the selected candidates to develop and write a final proposal for inclusion in the P30.

Eligible investigators from UCSD or any of the ACTRI partner institutions (Salk Institute, Sanford Burnham Prebys Medical Discovery Institute, La Jolla Institute for Allergy and Immunology, J Craig Venter Institute or San Diego State University) are invited to submit a letter of interest. Only US citizens and permanent residents are eligible to receive support.

The two types of awards are: 1) Pilot Studies and 2) Research Education Support.

**Pilot Studies:**
The goal of the Pilot Studies is to provide funds to investigators with novel research ideas pertaining to the Center’s theme and provide them with the support needed to pilot their ideas and acquire information needed to expand or design future studies. Applicants should apply for these funds to generate tools, resources, and/or data to support an eventual extramural funding application to NIH, NSF, or some other funding organization. *Multiple PI projects that pair investigators from health and engineering backgrounds are encouraged.*

**Funding:** Funding ranges from $25,000-$50,000 for one year. Funding will depend on the scope of the project.

**Eligibility:** Post-doctoral students, junior and senior investigators.

**Research Education Support (RES):**
The goal of Research Education Support is to provide funds and education to early career (e.g. assistant professor) investigators with novel research ideas pertaining to the Center’s theme and provide them with the support and education needed to pilot their ideas and acquire information needed to expand or design future studies and support their careers. Appropriate applicants are seeking not only funds to support pilot research for extramural support but also protected time, mentored research experience, and training relevant to the theme of technology to preserve independence in older adults. This could involve, for example, medical professionals gaining training in the design, development, and deployment of technologies or technologists gaining additional training in aging science, clinical research methods, or health care systems.

**Support through the RES program includes:**
- Protected research time (up to 75% time with 2-3 years of support)
- A formal mentoring and educational program
- Priority access to Pepper Center Cores and Resources (see below)
- Travel funds to attend and present at the annual Pepper Center meeting and to take part in training activities at other Pepper Centers.
**Funding:** Funding ranges from $30,000-$60,000 per year for two to three years. Amount and duration of funding will depend on whether the applicant has other sources of salary and project support (e.g., K award or VA CDA).

**Eligibility:** Early career Investigators (e.g., Assistant Professors). Postdoctoral students are not eligible.

**Examples of Possible Projects:**
Projects should focus on technology designed to preserve independence among older adults. Examples of studies that may be supported include, but are not limited to:

- Preliminary testing of an intervention using technology.
- Analysis of data acquired in ongoing or previous studies or other datasets that have used technology and that may be applied to maintain independence in older adults.
- Co-design development of a technology tool that aligns with target community older adult members.
- Addition of technology to an existing study.

**Examples of Research Educational Support (for RES funding only):**

- Training in human-centered design strategies, particularly when working with older adults
- Training in prototype development and deployment of digital health, diagnostic or device technologies
- Training in data science fundamentals
- Training in the ethical design and deployment of technologies for older adults
- Training in gerontology/geriatrics, epidemiology, or other foundational topics from aging research relating to technologies
- Training in conducting clinical trials

**Proposed UCSD Pepper Center Resource Cores:**
The Center will include four Resource Cores that provide investigators with consultative and educational resources. Applicants will be required to take advantage of one or more of the Cores within the proposed work. The four Cores and the services they provide are:

- **Data Science Core (DSC)** – The DSC will provide both informatics and data analytic support to research teams. This includes support of data access, data architecture, cleaning, preparation, visualization, security, privacy, and ongoing data management.
- **Community Centered Design Core (CCDC)** – The CCDC will employ human-centered design principles with a clear focus on engaging older adults in the creation of tools that will be useful and usable for them in real-life settings.
- **Ethics Core (EC)** – The EC will ensure awareness of ethical issues including informed consent, privacy protections, data management (collection, security and sharing) and overall safety in the context of research and applied use of AI technology (as aids themselves and as research data collection tools) and provide guidance and education throughout the design through deployment process.
- **Engineering and Deployment Core (EDC)** – The EDC will advise on the creation of physical prototypes that can be used to support independence. Technology focus areas include: assistive robots (e.g., smart walkers, robotic prostheses), sensors (e.g., glucose monitors, fall detectors), and telemedicine technologies (e.g., telepresence robots, haptics).

**Application Process:**
Interested candidates must submit a Letter of Interest (LOI) by 5:00 pm Friday April 19, 2019. Applicants will be notified by early May 2019. We will select 3-4 pilot study candidates and 4-5 research education candidates to submit a full proposal for inclusion in the P30 Center application. *The proposed Center leadership from engineering and health sciences will work with the selected candidates to develop and write a final proposal for July 2020 funding consideration.*

**Letter of Interest Requirements:**

- Resume, CV or NIH- or NSF-style biosketch
- Letter of interest (1 page, 0.5-inch margins, Arial 11pt font, single spaced) including the following elements:
  1. Submitting Investigator(s): Name, academic rank, department, Institution, email address
  2. Indicate whether applying for a) Pilot Study or b) Research and Education Support
  3. Title of proposed research
  4. Rationale, significance, and aims of the study
5. Description of proposed study
6. A short explanation of how any Resource Cores (see above) will be utilized in the proposed research. REC applicants should provide 2-3 training goals that complement the proposed research.
7. For Research Education applicants only:
   a. Primary mentor (and secondary mentors if applicable): Name, academic rank, department, Institution, email address, and reason for selecting mentor(s)
   b. Letters from primary mentor, department chair or division chief.

Application Process Timeline:
- Letter of Interest Deadline: Friday, April 19 by 5:00 pm
- Notice of Invitation: Early May
- Full Proposal Due: August 2019

Submission Procedure:
All LOIs should be sent via email containing a single pdf document to the UCSD OAIC Coordinating Center email (pepper@ucsd.edu). Questions may also be addressed to this email.