



Pilot Projects Program
Research Funding Announcement
2020–2021 (Yr 28)

The Center for Environmental Genetics (CEG) announces the following funding opportunity through its Pilot Projects Program (PPP). We offer competitive awards in 6 categories to support a range of innovative, multi-disciplinary, high-risk/high-reward research efforts.

The CEG is housed in the UC College of Medicine and is funded by the National Institute for Environmental Health Sciences (NIEHS) center award P30 ES006096. Our mission is to conduct innovative, multidisciplinary research on **gene-environment interactions (GxE)** and translate discoveries to disease prevention via community empowerment, at home and around the globe. Toward this end, the CEG offers promising investigators access to use of its facilities and services cores; e.g., genomics, epigenomics, proteomics, *etc.* (See list below).

I. Award Categories

1. **Innovator** awards for existing environmental health scientists who wish to develop research in a new direction, e.g., using a new technology/concept or establishing new collaborations.
2. **New-to-EHS** awards for investigators at any level who have no prior experience in environmental sciences/environmental medicine research, but wish to venture into the field. Applicants must identify an EHS scientist as a co-investigator.
3. **Affinity Group** awards for a group of multiple investigators from different disciplines submitting a highly integrated and novel transdisciplinary application. These should be new research teams. Collaboration with other NIEHS-funded EHS Core Centers is encouraged.
4. **Translation and Community Engagement** awards for EHS researchers to pursue new directions in research translation and community engagement;
5. **New Investigator Awards** for junior faculty investigators (ONLY those who have already been selected for initial salary support under the CEG Administrative Core).
6. **Time-Sensitive Response (TSR) Awards** for CEG members with urgent but unexpected research needs.

Award categories 1 through 5 are awarded once a year; TSR category awards will be made on a rolling basis.

Review of a pilot award application will be more favorable if the proposal demonstrates:

1. Relevance to gene-environment interactions (GxE): *e.g.*, given the same environmental exposure or dose, what accounts for different responses between individuals having variants of the same gene?
2. High-risk/high-reward (exploratory studies).

RFA and forms online at
<http://med.uc.edu/eh/centers/ceg/pilot-project-program>

3. New directions (including something never before tried by this PI).
4. Integration of new technologies and concepts into the research.
5. Synergism that complements the existing research base of the CEG.
6. Strong potential for translation / community outreach and engagement.
7. Use of CEG facility cores.

II. Eligibility

Principal investigators (PIs) must have a faculty appointment or be a senior research staff member with doctoral-level training. Postdoctoral Fellows and Graduate Assistants are not allowed to be PIs on these awards.

Proposals that do not evaluate gene x environment interaction(s) will be considered non-responsive and will not be reviewed. Exceptions may apply to the 'Translation and Community Engagement Award' category.

“Gene” in this context is broadly defined: *i.e.*, individual genes/gene components, gene products, genomics, functional genomics, proteomics, metabolomics, epigenomics.

“Environment” in this context is defined based on the language used by the NIEHS for environmentally relevant toxicants in its RFAs, as cited below, *e.g.*,

*Examples of **environmentally relevant toxicants include industrial chemicals or manufacturing byproducts, metals, pesticides, herbicides, air pollutants and other inhaled toxicants, particulates or fibers, and fungal/bacterial or biologically derived toxins. Agents considered non-responsive include, but are not limited to, alcohol, drugs of abuse, pharmaceuticals, chemotherapeutic agents, radiation which is not a result of an ambient environmental exposure, and infectious or parasitic agents, except when agents are disease co-factors to an environmental toxicant exposure to produce the biological effect. Applications which focus entirely or primarily on these exposure factors will be considered nonresponsive to this announcement and will not proceed to review. However, it is appropriate to include these factors as part of research to define effects of the exposome, and these factors may be a part of applications focused on the totality of a person's environmental exposure.*** [our emphasis added]

Note that, while environmental tobacco smoke (secondhand smoke) would be considered a fundable topic, (direct) smoking is not.

III. Required Steps – Prior to Submission

When submitting a proposal that includes human subjects or human specimens, applicants should be aware that an approved IRB protocol will be required before the award is made. You are advised to seek consultation with the CEG **Integrative Health Sciences Facility Core (IHSFC)** at least 2 weeks before the proposal submission deadline. To schedule, please email Drs. Aimin Chen and Susan Pinney at chenai@ucmail.uc.edu and Susan.Pinney@uc.edu, respectively.

CEG pilot applicants are encouraged to indicate any potential of their proposed research for public/community health translation. Pilot applications in the translation and community engagement category are required to include clear plans for community engagement and/or translation of study outcomes.

IV. Deadlines and Funding Information

- Applications must be received by 5:00 pm Friday **January 31, 2020**. We anticipate that award determinations will be made by March 15, 2020.
- The pilot project period is limited to one fiscal year with no extension allowed except for the Time-sensitive Response Award which is for 6 months only.
- Pilot projects may request funds up to **\$30,000** except for the Affinity Group awards category which may request up to **\$50,000** and the Time-sensitive Response Award category which may request up to **\$5,000**.
- Actual award amounts, however, may vary depending on funds available. Indirect or F&A costs are not allowed. Funds must be completely spent by **February 28, 2021**. Any unused funds, at that time, will be returned to the CEG. We anticipate to fund 5 to 7 projects each award cycle.

V. Application Requirements

1. NIH face page| [PHS 398 fp1](#) is **required** for CCHMC and non-UC applicants
2. CEG cover page with abstract (adapt & follow the template below; provide all information requested on the template) is **required** of all applicants.
3. **Proposal narrative ≤ 5 typed pages** (except for a 2-page limit for the Time-sensitive Response Award) using single spaced, Arial font 11, ≥ 0.5 inch margins, providing
 - a) Specific Aims and Hypothesis
 - b) Background and Significance (with relevance to your research question and hypothesis)
 - c) Approach (Research methods to be used)
 - d) Relationship of the project to the GxE interaction theme of the Center.
 - e) CEG Core Facilities to be used for the proposed research
 - f) Bibliography (not included in the 5-page limit)
3. Biographical sketches of the Principal Investigator (PI) and all key personnel (new NIH format)
4. To the degree that the following are available at the time of application, all projects that use existing data/specimens or require the consent of human subjects **must** provide:
 - a copy of your **IRB approval** or IRB document showing exempt from IRB review
 - Human Subjects section (if exempt from IRB, provide description of study, what human data/samples will be used, and from where they will be obtained)
 - Inclusion Form(s) for non-exempt research
 - Human Subjects training documentation
 - Federal-wide Assurance number (FWA #)

If the project is a clinical trial (intervention study, exposure chamber studies, using an FDA regulated compound) you must provide your data safety monitoring plan; if Phase III may require DSMB

Award dollars for successful proposals involving human subjects/human specimens cannot and will not be released until the CEG receives required human subjects documentation (i.e., copy of IRB approval or exemption notice; documentation of Human Subjects training for project key personnel, etc. Delays in IRB documentation will lead to delayed award start dates and potential loss of funding.

5. Budget and budget justification (not included in the recommended page limit). Use [PHS 398 face page 4](#) (fp4, required). Budgets may NOT include faculty salaries. Budgets that include the use of CEG Facility Cores will be viewed favorably. Awardees are eligible for a subsidy for CEG core usage but the subsidy is not automatic. The proposed budget should be prepared without assuming a post-award matching subsidy from the CEG Cores.

Budgets will be reviewed for accuracy and appropriateness by a CEG financial officer.

6. List of prior CEG support and products (if any), including:
 - Previously awarded CEG funds and subsequent R01 or other grant as matching funds
 - Publications, abstracts, or presentations (relevant to that PPP) supported by CEG
 - Grant applications arising from PPP data generated with the CEG support

Submit applications to the CEG coordinator Teresa Donovan at donovata@ucmail.uc.edu or via conventional mail, CEG | Department of Environmental Health, Room 210 Kettering Research Building, 160 Panzeca Way, Cincinnati, OH, 45267 (campus ML 0056), by **5:00 pm Friday January 31, 2020**.

Questions regarding the application and review process may be directed to the PPP Co-Directors Drs. Jagjit Yadav (Jagjit.Yadav@uc.edu) and Aimin Chen (Aimin.Chen@uc.edu) for scientific issues and to the CEG/PPP Coordinator (donovata@ucmail.uc.edu for administrative issues.

VI. Post Award Duties

1. Awardees are required to spend all project funds by February 28, 2021 and provide a draft written progress report on study outcomes and impact by **December 15, 2020**.
2. All abstracts, posters, publications, and reports emanating in whole or in part from the funded work must acknowledge CEG support: *e.g., Research described in this article was supported by the University of Cincinnati Center for Environmental Genetics through the NIEHS award P30ES006096.*

Authors with work funded in full or in part by a CEG award or benefitting from CEG facility core services must associate the P30 ES006096 award to their publications via their **MyNCBI \ MyBibliography**: <https://www.ncbi.nlm.nih.gov/account>
Related tutorial at https://www.youtube.com/watch?v=JYODIOD_YYE

CEG-supported authors **must**

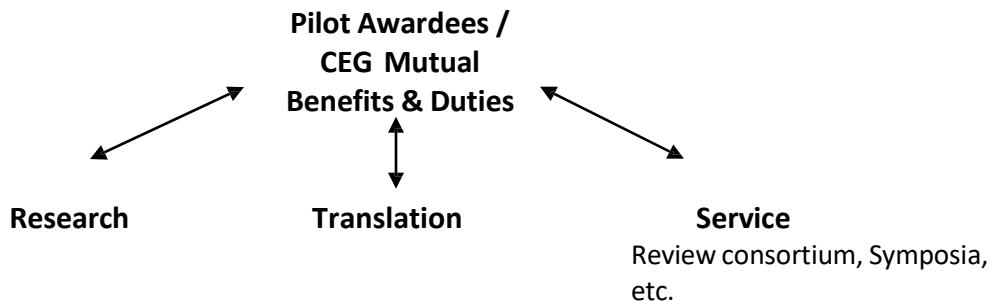
- a. formally acknowledge the CEG grant (NIEHS award P30ES006096), ideally at time of manuscript submission or retroactively via [MyNCBI](#) and
- b. make sure that any final peer-reviewed journal manuscript that arises in whole or in

part from CEG funds is [submitted to PubMed Central](#) immediately upon acceptance for publication (whether the journal publisher does it automatically, or the author makes arrangements with the publisher, or the author does so via [NIH Manuscript Submission System](#)).

The **NIH Public Access Policy** applies whether work leading to a publication is supported in whole or in part by CEG funds, and [whether person receiving CEG funds is primary author or co-author](#).

3. **CEG Pilot Project Symposium:** Awardees are required to orally present pilot results obtained during their award period at an annual research symposium, to which all CEG members, new PPP awardees, and interested community members are invited.

4. Awardees may be asked to participate as reviewers in future cycles of the *P30 EHS Centers Pilot Review Consortium*. The Consortium includes the University of Cincinnati, Wayne State University, the University of Michigan and Texas A & M University.



VII. Optional Post Award Opportunity – CEC Supplemental Funding

All pilot award recipients, regardless of award category, shall be eligible for additional funds to facilitate efforts toward possible community engagement and translation of research results. The CEC could offer up to \$1,000 for such outreach and translation activities. Application for CEC supplemental funds may be made following official notification of the PPP award. At that time, the Principal Investigator should request a meeting with the CEC Director to discuss translation plans. Interested awardees may contact Dr. Susan Pinney, Interim CEC Director, 513-558-0684; pinneysm@ucmail.uc.edu

A written request for CEC Supplemental funds should not exceed 3 pages, and should include the following: Abstract of the funded CEG pilot proposal (no more than ½ page), summary of plans for research translation or dissemination (2 of the 3 pages), and budget with justification (no more than ½ page).



Pilot Projects Grant Program
2020 – 2021 Cover Page

Project Title:	
Environmental component to be tested (Required) Examples include <i>industrial chemical(s) or manufacturing byproduct(s), metals, pesticides, herbicides, air pollutants and other inhaled toxicants, particulates or fibers, and fungal/bacterial- or biologically-derived toxins.</i>	
Genetic/Genomic component to be tested (Required):	
CEG Cores to be used (see list, next page):	
Principal Investigator name, title, contact information:	
Co-investigator(s):	
Description of project—including relevance to CEG mission. Abstracts of funded projects will be publicly available.	
Evidence of institutional review and protocol approval are required for release of funds to any successful applicant. Applicants are strongly advised to apply for IRB and/or IACUC approval at the time of proposal submission if the project has not yet been approved. The approval process may take several months, so the applicant’s earliest attention is needed to obtain IRB/IACUC approval before receiving CEG pilot project funding. Delays in providing documentation of your IRB and/or IACUC approval can significantly delay processing of awards.	
Human Subjects <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, the following information will be REQUIRED</i> Name of protocol: _____ PI: _____ IRB approval number: _____ Last approval Date: _____ Expiration Date: _____	Animal Subjects <input type="checkbox"/> Yes <input type="checkbox"/> No <i>If Yes, the following information will be REQUIRED</i> Name of protocol: _____ PI: _____ IACUC approval number: _____ Last approval Date: _____ Expiration Date: _____

Total budget requested:
Additional information or comment:
Applicant Signature and Date:
Approval Required – Department/Unit Chair Signature and Date:

Please indicate if this proposal is

1) Innovator

2) New to EHS

3) Affinity Group

4) Translation and Community Engagement

5) New Investigator Award (limited to NIAs)

6) Time-Sensitive Response Award

Category for this proposal = _____

CEG Facilities and Services (F&S) Cores

Integrative Technologies Support (ITS) Core (Ying Xia, Director)

Tier 1 core facilities

- Genomics and Epigenomics Sequencing Core (UC)(Zhang)
- Flow-cytometry (UC)(Huang)
- Confocal Microscopy (UC)(Tarapore)

Tier 2 core facilities

- Inhalation Core (UC)
- Transgenic Animal and Genome Editing Core (CCHMC)(Lingrel)
- Proteomics Core (UC)(Greis)
- NMR-based Metabolomics Core (CCHMC)
- Animal Behavioral Core (CCHMC)
- Fernald Community cohort resources (UC)(Pinney)
- Pluripotent Stem Cell Facility (CCHMC)
- Metallomics Core (UC)(Landro)

Integrative Health Sciences: Aimin Chen, Director (Susan Pinney, co-director)

Bioinformatics Support Core: Mario Medvedovic and Jarek Meller

Community Outreach and Engagement Core: Susan Pinney

<http://eh.uc.edu/ceg/pilot-project-program/>