The Center for Environmental Genetics (CEG) announces the following funding opportunity through its annual Pilot Projects Program (PPP). The Center offers competitive awards in 5 categories to support a range of innovative, multi-disciplinary, high-risk/high-reward research efforts.

The CEG is a research, training and community outreach program housed in the University of Cincinnati College of Medicine. The CEG is funded by the National Institute for Environmental Health Sciences (NIEHS) award P30ES006096. Our mission is to study gene-environment interactions in order to better understand the developmental origins of health and disease and the variation among individual responses to environmental exposures. Toward this end, the CEG offers promising investigators access to use of its facilities and services cores; e.g., genomics, proteomics, flow cytometry, etc. (see list below).

I. Award Categories

1. **Mentee-Mentor partnership** awards are limited to CEG Next Generation Biomedical Investigators (NGBI) and CEG New Investigator Scholar (NIS) Awardees.

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. They must identify an EHS scientist as a co-Investigator.

3. **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.

4. **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.

5. **Community Engagement in Research** awards will support projects designed and conducted with active participation of community partners.

**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).

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.


7. Use of CEG facility cores.

8. For the “Community Engagement in Research Awards” category, the application addresses an emerging environmental health issue identified by the CEG’s Community Outreach and Engagement Core (COEC) Stakeholder Advisory Board. The latest issues include
a. Air Quality and Transportation: As the City of Cincinnati develops sustainability plans for transportation, how will local air quality benefit? Applications are encouraged that use local data to help inform local public policy.

b. Socio-environmental Determinants of Health (such as environmental health disparity): Is there a genetic component to concentrated poverty in a given socio-environmental setting? What are the economics of the built environment on poor health?

II. Eligibility criteria

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. Exceptions are made only for CEG Career Development Program award recipients (Next Generation Biomedical Investigators and New Investigator Scholars) with a productive track record.

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 ‘Community Engagement in Research Award’ category.

“Gene” in this context means individual genes/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.

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

Any questions related to the eligibility criteria may be directed to Teresa Donovan at donovata@ucmail.uc.edu

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 therefore advised to seek consultation with Dr. Susan Pinney of the CEG Integrative Health Sciences Facility Core (IHSFC) by emailing her at Susan.Pinney@uc.edu at least 2 weeks before the proposal submission deadline.

CEG pilot applicants are encouraged to indicate any potential of their proposed research for public/community health translation. Pilot applications in the community engagement category are required to include clear plans for community engagement and/or translation of study outcomes. Toward this end, yet prior to submission, applicants are encouraged to consult with Dr. Erin Haynes of the CEG Community Outreach and Engagement Core (COEC) regarding their study aims and design. Dr. Haynes may be reached at 513-558-5427or Erin.Haynes@uc.edu.
IV. Deadlines and Funding Information

- Applications must be received by 5:00 pm Wednesday March 15, 2017. We anticipate that award determinations will be made by June 1, 2017.
- The pilot project period is limited to one fiscal year with no extension allowed.
- Pilot projects may request funds up to $30,000 except for the Affinity Group awards category which may request up to $50,000.
- 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, 2018. Any unused funds, at that time, will be returned to the CEG. We anticipate that up to six projects will be funded.

V. Application Requirements

1. NIH face page (for non-UC applicants only) OR
2. CEG title page with abstract (adapt & follow the template appended; provide all information requested on the template).
3. Proposal narrative < 5 typed pages (single spaced, Arial font 11, > 0.5 inch margins) providing
   a) Specific Aims
   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 goals of the Center (GxE interaction)
   e) CEG Facilities &Services Cores to be used
   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
   • 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 justification (not included in the 5-page limit). Please use PHS 398 face page 4 (fp4). 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 Teresa Donovan at donovata@ucmail.uc.edu or via conventional mail, Department of Environmental Health ML 0056, by 5:00 pm Wednesday March 15, 2017.

VI. Post Award Duties

1. Awardees are required to spend all project funds by February 28, 2018 and provide a written progress report on study outcomes and impact by December 1, 2017.

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.

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. Post Award Opportunity – COEC 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 CEG’s COEC core could offer up to $1,000 for such outreach and translation activities.

Application for COEC supplemental funds may be made following official notification of the PPP award. At that time, the Principal Investigator should request a meeting with the COEC office to discuss translation plans. Interested awardees may contact COEC Coordinator Rachel Shepler at sheplerk@ucmail.uc.edu or 513-558-2221.

A written request for COEC Supplemental funds should not exceed 3 pages, and should include

- Abstract of the funded CEG pilot proposal
- Summary of plans for research translation or dissemination
- Budget and budget justification
Project Title:

**Environmental component to be tested (Required)**
Examples include 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.

**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.**

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<th>Human Subjects</th>
<th>Yes</th>
<th>No</th>
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<td>Name of protocol:</td>
<td>PI:</td>
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<th>Animal Subjects</th>
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<td>If Yes, the following information will be REQUIRED</td>
<td>Name of protocol:</td>
<td>PI:</td>
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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) Mentee-Mentor partnership
2) New-to-EHS
3) Innovator
4) Affinity Group
5) Community Engagement in Research

Category for this proposal = ______________________________

CEG Facilities and Services (F&S) Cores

Integrative Technologies Support (ITS) Core

ITS Component Leaders:
Shuk-mei Ho: Genomics, Epigenomics and Sequencing Core
Jerry Lingrel: Transgenic and Knockout Mice
Ranjan Deka: Genotyping Facility
Ken Greis: Proteomics and Metabolomics Analyses
Shouxiong Huang / Immune Monitoring Core (formerly Flow Cytometry core)
Pheruza Tarapore: Confocal Imaging Core
Julio Landero: Analytical services & Mass spectrometry
(large & small molecules & heavy metals) Metallomics

Integrative Health Sciences: Susan Pinney

Bioinformatics Support Core: Mario Medvedovic and Jarek Meller

Community Outreach and Engagement Core: Erin Haynes

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

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