To: Columbia University Faculty
Columbia University Research Scientists
Columbia University Research Scholars
Columbia University Postdoctoral Fellows

Cross-Cutting Initiative
Cross-disciplinary Research Grants
Call for Proposals 2012-2013

Typical Award Amounts:
Seed-funding: $10,000 - $30,000
Colloquia-type projects: $10,000 maximum

Proposal Deadline
Monday, May 14, 2012 12 noon

Award Notification
Friday, June 29, 2012
Proposals are solicited from the Columbia University faculty and research staff to advance the goals and objectives of the Earth Institute’s Cross-Cutting Initiative (CCI). Under CCI, scholars from a wide range of fields (e.g. biology, engineering, public health, and the social, political, and earth sciences) join forces to address complex global challenges and possible solutions to the most pressing problems in the field of sustainable development. The CCI aims to establish new methods for bridging disciplines and enabling scientists from different fields to address intrinsically cross-disciplinary problems and work towards practical solutions. Current projects include corruption and post-disaster economic recovery; promoting organic fertilizer use in Africa; and facilitating combined heat and power projects in New York City among many others. The CCI’s website (http://www.earth.columbia.edu/articles/view/61) provides information about current and past CCI awards and recipients.

For additional information, contact Flora Moir at fmoir@ei.columbia.edu or 212-854-7071, or George Sarrinikolaou at gsarrinikolaou@ei.columbia.edu or 212-854-3871.

Eligibility and Composition of Research Team

Cross-Cutting Initiative funds are only available for projects in which a member of the Columbia University community is the Principal Investigator (PI).

- The lead PI must be a full-time research scientist, research scholar or professor at Columbia University. There can be up to four co-PIs per proposal. Co-PIs need not be members of the Columbia University community. There is no limit to the number of project team members.
- An EI Fellow or Columbia postdoctoral research fellow may be the PI of a project as long as a full-time Columbia University professor, research scientist or research scholar, listed as co-PI, signs an agreement to assume responsibility of the project once the fellow has completed his/her fellowship. The dates of the fellowship term must be included in the proposal. Fellows may be listed as co-PIs without a signed agreement.
- The project team will ideally comprise a mix of senior and junior scientists, including Earth Institute Fellows, and undergraduate or graduate students. The team may include collaborators outside of the Columbia University community.

N.B. A project that receives funding from the Cross-Cutting Initiative is an Earth Institute project and will remain so regardless of changes in project leadership. Project PIs will be asked to provide content for web pages that the Earth Institute will create for each project.

Award Amounts and Project Renewal

Awards typically range from $10,000 to $30,000 for each proposal granted. A maximum award of $50,000 may be awarded under rare circumstances at the discretion of the Cross-Cutting
Initiative Steering Committee (Steering Committee henceforth). Proposals for community building and for defining new lines of inquiry through seminar/colloquia-type activities may request grants of under $10,000. In addition to funding original proposals, the Steering Committee may also consider proposals that emerge from previously-funded Cross-Cutting projects.

Proposals for renewed funding may be submitted for consideration provided the initial project goals have been completed and the monies spent as planned. Any such renewed funding must be used to ensure the long-term benefit of the project.

**Project Requirements**

All proposals must meet the following requirements for consideration:

1. The project should reflect the mission of the Earth Institute and address pressing issues in the field of sustainable development.

2. The project should be interdisciplinary, seeking new and innovative ways of drawing together faculty and research staff across academic disciplines. The goal must be to bring their knowledge, experience and expertise to bear on the task of finding practicable solutions to complex global challenges.

3. Priority will be given to proposals that address three or more of the following nine cross-cutting themes:
   - climate and society interactions
   - water scarcity management
   - clean energy
   - poverty alleviation
   - ecosystems health and monitoring
   - global environmental public health and global health delivery systems
   - food, ecology and nutrition
   - hazards and risk reduction
   - urbanization

4. Intellectual inquiry should be outcome-driven. Examples include creating technologies that improve the quality of life, or using new kinds of science and public policy to have direct impacts on individuals.

5. The proposed work should reinforce existing research within the five clusters of the Earth Institute: Earth Sciences, Biological Sciences, Engineering Sciences, Social Sciences, and Health Sciences.

6. Projects may be place-specific, but the overarching theme should be relevant on a global scale.
7. The project should aim to create a legacy, such as institution building, receipt of external funds to further the research, published papers in peer-reviewed journals, etc. The proposal should discuss how the experience gained from the project might be leveraged for external funding in the future.

The following criteria will also be taken into consideration by the CCI Steering Committee:

- Creativity of the research
- Strategies for communicating the results to the public
- Composition of the project team

Proposal Format

The proposal should include the following documents:

- New project proposal coversheet (attached)
- Project description
  - Up to five (5) pages covering the information outlined in the Project Description section below.
  - Only the first five pages of the proposal will be considered.
- Appendices are not permitted except one (1) page of references (no smaller than a 10-point font).
- All proposals, including itemized budgets, must be submitted in Microsoft Word and written in 12-point font with one-inch margins.

Project Description

**Title and Scope of Project** (half page maximum)
This section should include the project title and a description of the goals and objectives of the project. The seven “Project Requirements” above must be addressed in this section. This section should also address the scale of the project and the possibility of increasing its scope in the future.

**Methodology**
This section should lay out the basic project plan. The plan should include the hypotheses being tested and the experimental design used to test them, including the data collection and analysis methods. PIs must demonstrate why the proposed research methods are the most appropriate relative to alternative approaches to test their hypotheses.

If secondary data analysis is needed, the proposal should identify the data sets to be used, their sources and how they will be obtained. It is strongly recommended that PIs provide letters of support, or other documentation, from data sources to confirm access to data needed. If the project proposes to develop a new tool or modify an existing one, PIs should articulate the rationale and clearly state the methods, with supporting references, for developing these tools.
**Fieldwork Site, Project Client and Project Partners**
This section should clearly identify the fieldwork site, the project client and/or partners involved. It is strongly recommended that these all be identified before the start of the project. The section should also describe the project team’s prior experience, if any, working in the proposed locations and with the clients and partners listed. It is also recommended that PIs limit the initial number of field sites or proposed interventions with a view of scaling up in the future based on preliminary results.

**Project Timeline**
This section should describe the timing of the project plan and anticipated project milestones during the 18-month project period. PIs will be expected to provide oral progress reports to the Cross-Cutting Initiative Steering Committee nine months into the project. Updates should include progress toward milestones, challenges and any need for extension. The timeline should clearly identify the time necessary for logistical planning, including approval processes, before travel to field sites. One six-month extension may be requested.

**Required Equipment and Approvals**
This section should describe the equipment to be used, as well as state if new equipment is required for the project. Grant monies can be used to purchase software if needed but cannot be used to purchase new computers. This section should also list the approvals necessary for project initiation (e.g. Institutional Review Board).

**Names and Titles of Contributors and their Role in the Project**
This section should identify the project team and any collaborators, as well as provide a brief description of what specific activities each member of the team will conduct.

**Conflicts of Interest**
This section should list any member of the Cross-Cutting Steering Committee that has a conflict of interest with the proposed project. Members of the Steering Committee are Peter Schlosser (chair), Steve Cohen, Yochanan Kushnir, Klaus Lackner, Upmanu Lall, Art Lerner-Lam, John Mutter, Cheryl Palm, Richard Plunz, Neil Schluger, Madeleine Thomson, Maria Uriarte, and Lex van Geen.

**Itemized Budget**
This section should contain an itemized budget projected for the seed funding. If this request is part of a larger project, please indicate how the remainder of the funds will be obtained or what portion can be accomplished with the requested seed funds. The budget should be separated by fiscal year (i.e. July 1-June 30). Projects may extend beyond a single fiscal year. Indirect costs should not be included in the budget, except fringe benefits on salaries, which should be calculated at the rate of 33.7% for faculty and fellows. This rate does not apply to students. The grant money cannot be used to cover student tuition, but it can be used for interns, research assistants and work stipends. Grant money can be allotted, at the discretion of the project leader, to cover faculty time or to provide additional funds to complement existing salaries. The CCI Steering Committee recommends that grant money be applied to junior staff salaries instead of senior staff.

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1 Outside advice may be sought for proposals beyond the expertise of Steering Committee members.
Deadlines

Proposal Submission
Proposals must be received electronically by 12 noon, on May 14, 2012, to cci@ei.columbia.edu. Late submissions will not be considered.

Award Notification
Award notifications will be made by June 29, 2012.

Midterm and Final Progress Reports
PIs will be expected to provide oral progress reports 9 months into the project to the Cross-Cutting Initiative Steering Committee. A final report is due at the end of the project. The final report form will be provided one month before of the deadline but can also be requested in advance from Flora Moir, fmoir@ei.columbia.edu.