

## **Earth Intern Program for Columbia and Barnard Students**

*Sponsored by the Earth Institute, Lamont-Doherty Earth Observatory, Barnard College and the Department of Earth and Environmental Sciences at Columbia University.*

Program Dates: June 6th-August 11th, 2017

The Earth Intern Program offers the chance to experience scientific research as an undergraduate. **The program is open to all Columbia College, Columbia Engineering, Columbia General Studies, and Barnard students** who have completed their junior or sophomore year in college with majors (or anticipated majors) in earth science, environmental science, sustainable development, chemistry, biology, physics, mathematics, engineering or political science. **Graduating seniors are not eligible.** Minorities and women are encouraged to apply.

Applicants should have an interest in conducting research in the Earth, atmospheric, or ocean sciences. Completion of at least two courses in Earth, atmospheric or ocean sciences is desirable. All students are required to have at least one year of calculus. Students undertaking research in geochemistry and chemical oceanography are required to have at least two semesters of college-level chemistry. Students undertaking research in marine biology are required to have at least two semesters of college-level biology. Students undertaking research in geophysics should have at least three semesters of college-level physics.

**STIPEND:** Students will receive a stipend of \$5000 for this 10-week program.

**HOUSING and TRAVEL BENEFITS:** The student will receive free, air-conditioned housing as one of two students in a double room. Students will also receive free bus transportation between the Columbia campus and Lamont. Students who are traveling to New York for this internship from more than 200 miles away will be reimbursed for a round-trip supersaver fare\*.

The following members of the Earth Institute and the LDEO staff will act as research mentors:

**Merry Cai, Steve Goldstein and Wally Broecker.** Expertise: **Isotope Geochemistry, Sedimentary Geochemistry, Paleoceanography, Paleoclimate.** Research Project: Did a Meteorite Impact Precede the Last Rapid Global Warming Event, the PETM?

**Olivia Clifton and Arlene Fiore.** Expertise: **Air Pollution, Atmospheric Chemistry, Vegetation, Land-Atmosphere Interactions.** Research Project: What is the Impact of Vegetation on Air Pollution?

**Kassandra Costa and Jerry McManus.** Expertise: **Paleoceanography, Paleoclimate, Sediment Geochemistry, Stable and Radiogenic Isotopes.** Research Project: How Reliable is Radiocarbon Dating?

**Arlene Fiore and Dan Westervelt.** Expertise: **Air Pollution, Climate, Atmospheric Chemistry.** Research Project: Cleaner Air for China in a Warmer World?

**Sidney Hemming, Allison Franzese, Steve Goldstein and Merry Cai.** Expertise: **Isotope Geochemistry, Geochronology, Sedimentary Geochemistry, Paleoceanography, Paleoclimate.** Research Project: Is There Evidence of Co-Variation between Rainfall and Sediment Provenance with Human Evolution in Southern Africa?

**Einat Lev.** Expertise: **Experimental Volcanology.** Research Project: How and When Will This Lava Dome Collapse?

**Brian Mailloux.** Expertise: **Groundwater Microbiology.** Research Project: Will RNA Tell Us “Who” Is Active in Bangladesh Groundwater?

**Dara Mendeloff and Sandra Baptista.** Expertise: **Population Dynamics, Mapping, Statistics, Public Health, Human-Environment Interactions.** Research Project: What is the Relationship between Infant Mortality and the Environment?

**Frank Nitsche and Tim Kenna.** Expertise: **Marine Geology and Geophysics, Estuaries, Seafloor Mapping, Sediment Dynamics.** Research Project: What is the Effect of Sediment Type on Contaminant Distribution in Eastern Long Island Sound?

**Tammo Reichgelt and William D'Andrea.** Expertise: **Paleoecology, Paleoclimate, Organic Geochemistry, Plant Evolution.** Research Project: A Chance of Rain: Can Fossil Leaves Tell Us about Precipitation 23 Million Years Ago?

APPLICATION DEADLINE: Application form must be submitted by **February 17th, 2017.**

**There is an online application form. It is posted at:** <http://webapp.ldeo.columbia.edu/interns>

**The online application form asks for the following files:**

-Resume with description of computer skills (if any).

-A statement of interest. This statement can include a description of a particular research project that the student wishes to undertake or it can be a more general statement of the three areas of Research Project that interest the student most. We recognize that students with no prior research experience may have difficulty formulating a research project and we will not penalize students who do not submit a detailed project description. The goal of our program is to teach students about the research process and we encourage students with no prior research experience to apply. The student should also include a statement of the characteristics of a good scientist and the availability of undergraduate research opportunities at their home institution.

-two letters of recommendation from your professors. Additional letters are not required or desired.

-scanned official transcript(s).

**If transcripts are not available in time to append to the online application form, send scanned transcript(s) by snail mail to:**

**Dr. Dallas Abbott  
Summer Internship Program  
Lamont-Doherty Earth Observatory  
Palisades, New York 10964  
Email: [dallashabbott@gmail.com](mailto:dallashabbott@gmail.com)**

Columbia and Barnard students who also want their application considered for the Lamont Summer intern program sponsored by NSF Ocean Sciences should select 3 research projects each for both programs on the online application form. It is **not** necessary to send separate applications and transcripts when applying to both programs.

For more information about the program, look at this link:

<http://www.ldeo.columbia.edu/education/programs/summer-internship/intern-program-faqs>

Decisions for all but the waiting list will be made on or before March 15th, 2017. Every year the research projects and advisors change. Please look for the yearly posting of new projects in mid-January. \* \$500 cap on travel reimbursement.