

Earth Intern Program for Columbia, Barnard and SUSTech 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 5th-August 10th, 2018

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, as well as SUSTech undergraduate students fully supported by their university** 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:

Arlene Fiore, Martin Stute and Róisín Commane. Expertise: **Air Pollution, Atmospheric Chemistry, Vegetation, Land-Atmosphere Interactions.** Research Project: How Does Air Pollution Move Around New York City?

Tim Kenna and Frank Nitsche. Expertise: **Marine Geology and Geophysics, Estuaries, Seafloor Mapping, Sediment Dynamics.** Research Project: What Can the Distribution of Heavy Metals Tell Us about Sedimentary Environments and Benthic Habitats in Long Island Sound?

Yael Kiro and Steve Goldstein. Expertise: **Geochemistry, Paleoclimate, Hydrology.** Research Project: Where Do Dust and Sediments Come from during Dry Periods in the Eastern Mediterranean-Levant? Characterizing Dead Sea Sediment Sources.

Einat Lev. Expertise: **Experimental Volcanology.** Research Project: Do Pulses in Effusion Promote Lava Dome Collapse?

Brian Mailloux. Expertise: **Groundwater Microbiology.** Research Project: What Moves First: Arsenic or Carbon in Vietnamese Groundwater?

Beizhan Yan and Joachim Goes. Expertise: **Microplastics, Marine Food Web, Human Health, Pollutants.** Research Project: Are We Eating Microplastics through Marine Foods?

Qiang Yang and Steve Chillrud. Expertise: **Environmental Geochemistry and Health.** Research Project: Is Biking and Breathing in New York Bad for Your Heart? A Validation and

Health Study on Whether There Is a Cardiovascular Hit for Biking in Close Proximity to Traffic.

APPLICATION DEADLINE: Application form must be submitted by **February 18th, 2018**.

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 transcript(s). Transcripts need not be official but must be legible and in English.

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**

Columbia, Barnard and SUSTech students who also want their application considered for the research projects in the Lamont Summer intern program sponsored by NSF and IODP-USSP 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, 2018. 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.