Opportunities Week of January 4, 2019

**STAR U Research Experience:** STAR U is an 8-week summer training program. The goal of this program is to increase diversity in the field of neuroscience and aging by providing mentorship and training for young scientists. Therefore, the program is limited to students from diverse backgrounds who are underrepresented in the biomedical sciences.

For more info, see attached flyer

**Research Position in the Sheltzer Lab at Cold Spring Harbor Laboratory:** The Sheltzer Lab at Cold Spring Harbor Laboratory is seeking undergraduate researchers for a cutting-edge project applying CRISPR to dissect drug targets in cancer. The position pays an hourly stipend. The position requires the ability to work in the lab at least 12 hours a week, ability to get to/from Cold Spring Harbor Laboratory, Strong analysis, organization, and communication skills, Prior laboratory experience in molecular biology is preferred but not mandatory. Dr. Sheltzer is looking for a multi-semester commitment: Freshmen, Sophomores, and Juniors are encouraged to apply.

For more info and instructions to apply, see attached flyer

**Study Abroad Opportunities at the Turkana Basin Institute in Kenya** Since 2011 the Turkana Basin Institute (TBI), founded in 2005 by Richard Leakey and Stony Brook University, has offered an opportunity for undergraduate and graduate students to participate in a field program in the Turkana Basin that exposes them to the sciences related to human prehistory with courses in Ecology, Geology, Vertebrate Paleontology, Human Evolution, and Archaeology. Participants will work directly with scientists and do fieldwork at active hominin fossil localities and archaeological excavations, such as at Lomekwi 3, the oldest stone tool site in the world.

TBI offers two programs: a 15 credit full-semester Origins Semester Abroad (offered both Fall and Spring) and a 9 credit Summer Field School. Both programs are extraordinary opportunities for students interested in the science of humanity’s past and are taught by leaders in their fields.

**Most of these courses fulfill the Area IV requirement for several Biology major concentrations!** Currently accepting applications for Summer and Fall 2019.

**Reminder: Miami University's Project Dragonfly:** Accepting applications for 2019 Earth Expeditions graduate courses that offer extraordinary experiences in 16 countries throughout the world. Earth Expeditions can build toward the Global Field Program (GFP), a master's degree that combines summer field courses worldwide with web learning communities so that students can complete the GFP master's part-time from anywhere in the United States or abroad. Project Dragonfly also offers the Advanced Inquiry Program (AIP) master's degree that combines web instruction from Miami University with experiential learning and field study through AIP Master Institutions in the U.S. Applications for Miami’s 2019 cohorts are being accepted now for the AIP master's that includes place-based experiences at zoos in Chicago, Cincinnati, Cleveland, Denver, New York, San Diego and Seattle.

For more info, see [http://EarthExpeditions.MiamiOH.edu](http://EarthExpeditions.MiamiOH.edu)

*Disclaimer: Undergraduate Biology does not endorse or take responsibility for any off-campus programs listed in Opportunities emails. While we do our best to vet any opportunity that is shared, please let us know immediately if you are suspicious of any employers/programs.*
Studying cancer genomes with CRISPR at Cold Spring Harbor Laboratory

The Sheltzer Lab at Cold Spring Harbor Laboratory is seeking undergraduate researchers for a cutting-edge project applying CRISPR to dissect drug targets in cancer. The position pays an hourly stipend.

Cancer cells require the expression of certain genes, called “addictions” or “genetic dependencies”, that encode proteins necessary for tumor growth. Targeting the proteins encoded by these genes can trigger cell death and durable tumor regression. The Sheltzer Lab is applying CRISPR to study genetic dependencies in cancer in order to identify new therapeutic vulnerabilities and targets for drug development. Additionally, through CRISPR mutagenesis, we investigate the on-target and off-target effects of different cancer drugs, with profound implications for their clinical use.

More information on some of our previous research can be found in these publications (written by previous undergraduates):


Position Requirements:

- Ability to work in the lab at least 12 hours a week (which can include evenings and weekends, based on the student’s schedule).
- Ability to get to/from Cold Spring Harbor Laboratory (car is preferred).
- Strong analysis, organization, and communication skills.
- Prior laboratory experience in molecular biology is preferred but not mandatory.
- We are looking for a multi-semester commitment - Freshmen, Sophomores, and Juniors are encouraged to apply.

More information can be found on the Sheltzer lab website: http://sheltzerlab.labsites.cshl.edu/.

Interested students should send a CV and cover letter to Dr. Sheltzer at sheltzer@cshl.edu.
APPLY FOR STAR U, A FULLY FUNDED SUMMER RESEARCH EXPERIENCE IN THE NEUROSCIENCE OF AGING

Are You:

- An undergraduate student interested in researching the aging brain?
- Interested in an immersive research and training experience in the Summer of 2019?
- Interested in carrying out a scientific research project?

_The goal of this program is to increase diversity in the field of neuroscience and aging by providing mentorship and training for young scientists. Therefore, the program is limited to students from diverse backgrounds who are underrepresented in the biomedical sciences as defined by NIH https://www.nigms.nih.gov/training/diversity/
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About the Summer of Translational Aging Research for Undergraduates at Columbia University:

STAR U is a structured, 8-week summer training program with the aim of increasing diversity within the field of neuroscience of aging. In addition to individualized faculty mentorship, participants will engage in seminars and professional development activities. Student housing, transportation, and a monetary stipend for the 8-week period will be provided.

Program Highlights:
- Engage in a primary research project under guidance of expert faculty
- Participate in seminars on scientific and professional development topics
- Network with other young scholars and researchers in the field
- Gain exposure and refine your interest in neuroscience/aging research
- Gain lasting mentorship and connections that extend beyond STAR U

Website: http://columbianeurology.org/education-and-training/summer-translational-aging-research-undergraduates-star-u

APPLY NOW! (see link)

https://goo.gl/FsRmnr

APPLICATIONS OPEN UNTIL FEBRUARY 15

Program Dates: June 1 through August 1, 2019

Questions? Contact Kiana Chan at kkc2146@cumc.columbia.edu
The Turkana Basin Institute (TBI) was established as a joint venture between renowned paleoanthropologist and conservationist Richard Leakey and Stony Brook University to expand upon groundbreaking scientific work the Leakey family and their colleagues have pioneered over the last five decades in Kenya’s Turkana Basin. Now, TBI is proud to offer unique full-semester and summer field school programs through Stony Brook University.

STUDY ABROAD IN KENYA!

EXPLORE HUMANITY’S PLACE IN NATURE WITH TBI’S ORIGINS FIELD SCHOOL

Do you want to learn about ancient humans, discover fossils and artifacts, and visit important prehistoric sites? Our Origins Field School explores the place that humans occupy in the natural world and how we came to occupy that place. Participants will gain experience in field survey and excavation methods, paleoenvironmental reconstruction, taphonomy and more, and will take field trips to important paleontological and archaeological sites, diverse ecological settings, and remarkable geological features throughout the Turkana Basin.

The Origins Field School is offered as two distinct yet integrative programs: the Semester Abroad Program, offered in both the fall and spring, and the Summer Program. You can attend either or both, as the material covered is complementary rather than duplicative. In each you will earn upper-division credits while studying at TBI’s state-of-the-art campuses in northern Kenya. Courses are taught in English by top scientists in their fields.

SEMESTER ABROAD

The program is comprised of five, 3-credit courses at the upper division or graduate level:

• Ecology: Linking People and Nature (ANP 304/ANT 504)
• Sedimentary Geology and Geochronology (GEO 303/GEO 504)
• Earth & Life Through Time (ANP 305/ANT 505)
• Human Evolution (ANP 306/ANT 506)
• Prehistoric Archaeology of Africa (ANT 307/ANT 507)

This program is offered each spring and fall semester. Participants will earn 15 upper-division credits while they explore and learn in the place where the Leakey family and their colleagues have made, and continue to make, unprecedented discoveries into our origins.

SUMMER PROGRAM

The program is comprised of three, 3-credit courses at the upper division or graduate level:

• Environments, Ecosystems and Evolution (ANP 310/ANT 510)
• Paleoanthropological Field Methods (ANP 308/ANT 508)
• Archaeological Field Methods (ANT 321/ANT 527)

This program will be offered each summer. Participants earn at least nine upper-division credits and will work directly with leading scientists at active hominin fossil localities and archaeological excavations, such as Lomekwi 3 (the oldest stone tool site in the world).

Students in either program may apply to enroll in Independent Study (ANP/ANT 487 or ANT 610) for additional credits to perform research projects.

To learn more or to apply to this program, please visit KenyaStudyAbroad.org, or email turkanabasin@stonybrook.edu.

Learn more at KenyaStudyAbroad.org