

## Concept Clearance

**Branch:** Genes, Environment and Health

**Council Period:** 201901

**Concept Title:** Undergraduate Research Education Program (UP) to Enhance Diversity in the Environmental Health Sciences (R25)

### Introduction

The NIEHS R25 Undergraduate Research Education Program (UP) in the Environmental Health Sciences (RFA-ES-14-004) is a key activity in the implementation of the NIEHS Strategic Plan designed to increase the pool of scientists from underrepresented backgrounds engaged in NIH-funded environmental health science research. Although the NIH currently provides multiple opportunities to develop research careers and improve participation for individuals from groups with low representation in the biomedical and behavioral sciences, reports from the National Science Foundation (NSF) and others provide strong evidence that lack of diversity remains an important problem that must be addressed at every level of the educational pipeline. The NIEHS UP Program provides support to appointed students from underrepresented backgrounds for up to 2 years of their undergraduate education, typically beginning as rising juniors, to gain hands-on experience with research activities in the environmental health sciences. The undergraduate student participants can be supported for up to 15 hours/week during the academic year and up to 40 hours/week during the summer. Student appointments can begin as early as the summer before their junior year and continue through the summer after their senior or final year. NIEHS UP R25 student participants are expected to spend at least one summer (but ideally two) engaged in a full-time research internship in the environmental health sciences.

RFA-ES-14-004 was released in May 2014, with program funding for five years beginning in April 2015. The NIEHS is funding six R25 UP programs from that funding announcement, all currently operating in their fourth year. For Council consideration is a request for a follow-up funding opportunity to enable the continuation of this undergraduate diversity training program.

### Research Goals and Scope

NIEHS UP (R25) programs supported by this FOA are expected to consist of both an introduction to environmental health sciences research through experience on a research project with the participating faculty and an organized educational program (e.g., seminars) designed to acquaint the participants with the larger field of the environmental health sciences. The focus of both the research experience and the educational experiences/seminars should be within the mission interests of the NIEHS, which explores how the environment affects people's health. Programs proposing only the research experiences within the context of a university-wide program for undergraduate students are not considered responsive to this announcement.

Program Directors/Principal Investigators are responsible for the ongoing evaluation of the quality of their NIEHS UP research education program, as well as tracking student participants. It is expected that plans will be developed to obtain feedback from participants to enhance the program's outcomes, achieve its goals, and suggest program improvements. All NIEHS UP R25 applications must describe an evaluation plan for the proposed activities and a tracking plan for participants in order to assess program activities/outcomes and to determine the effectiveness of all aspects of a program.

Research education programs may complement ongoing research training and education occurring at the applicant institution, but the proposed educational experiences must be distinct from those training and education programs currently receiving Federal support. R25 programs may augment institutional research training programs (e.g., T32, T90) but cannot be used to replace or circumvent Ruth L. Kirschstein National Research Service Award (NRSA) programs.

### Mechanism and Justification

The UP program will continue to use the NIH R25 Research Education Program grant mechanism which supports research education activities within the mission areas of the NIH. The new RFA will maintain the essential elements of RFA-ES-14-004, the original funding announcement for this program. It is expected that the direct cost per R25 will continue to be \$100,000 per year for five years. Program applicants will need to demonstrate an association with a strong graduate program in the environmental health sciences as evidenced by the presence of a funded T32 Training program, a strong base of funded research in the environmental health sciences, or a graduate program with a focus on environmental health sciences research training. In cases where the home institution does not have an appropriate graduate program, an applicant can propose

collaboration between their undergraduate UP program and a graduate program in the environmental health sciences at another institution.

**Proposed Timeline for the renewal of the Undergraduate Research Education Program (UP) to Enhance Diversity in the Environmental Health Sciences:**

Council Concept Clearance: January/February 2019

RFA Release Date: May 2019

Application Due Date: August 2019

Peer Review Date: Fall/Winter 2019

Council Review Dates: January/February 2020

Earliest Anticipated Start Date: April 2020