Opportunity Title: NOAA Harmful Algal Bloom Internship
Opportunity Reference Code: NOAA-NCCOS-2023-03

Organization National Oceanic and Atmospheric Administration (NOAA)

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How to Apply ***Connect with ORISE...on the GO!*** Download the new ORISE GO mobile app in the Apple App Store or Google Play Store to help you stay engaged, connected, and informed during your ORISE experience and beyond!

A complete application package consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. Click **Here** for detailed information about acceptable transcripts.
- A current resume/CV

All documents must be in English or include an official English translation.

Application Deadline 4/3/2023 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.***

NOAA Office/Lab and Location: A research opportunity is currently available with the NOAA, National Ocean Service (NOS), NCCOS, Stressor Detection and Impacts Division (SDI), Harmful Algal Bloom (HAB) Forecasting Branch. The HAB-F Branch delivers near real-time forecasting products for predicting the intensity/severity, location, and the potential health risk HABs pose in the Great Lakes and coastal regions of the U.S. While national in scope, forecasting efforts and products address regional needs and specific HAB species. The product sets are intended to support coastal resource managers, public health officials, researchers, and the public. The appointment will be based in Beaufort, NC and is not eligible for telework.

The National Oceanic and Atmospheric Administration (NOAA) formed the National Centers for Coastal Ocean Science (NCCOS) in 1999 as the focal point for NOAA's coastal ocean science efforts. NCCOS helps NOAA meet its coastal stewardship and management responsibilities, and provides coastal managers with the scientific information necessary To decide how best to protect environmental resources and public health, preserve valued habitats, and improve the way communities interact with coastal ecosystems. he NCCOS is headquartered in Silver Spring, MD but also has research labs across the nation. The NCCOS also has many assets including research programs, vessels, satellites, science centers, laboratories, and a vast pool of distinguished scientists and experts.

Research Project: Under the guidance of a technical mentor, the selected candidate will gain experience in various research activities including performing and otherwise supporting collection of laboratory and field data, including use of analytical and oceanographic monitoring instruments, collection of water/plankton, and other activities.

The specific project includes supporting ongoing research efforts in Florida

in support of future field efforts demonstrating efficacy of a novel algicidal bacterium immobilized in a non-toxic matrix for the consistent release of product over time (termed DinoSHIELDs). Florida experiences annual blooms of the toxic dinoflagellate Karenia brevis. There is a need for control strategies that can combat harmful algae before large-scale blooms occur. The overarching goal of this fellowship is to obtain additional information on the efficacy of DinoSHIELDs through laboratory and field exposures with the goal of improving our understanding of application rates and scale-up procedures for future field efforts in Florida.

Learning Objectives: The fellow will:

- Gain familiarity in field collection of data with oceanographic instruments
- Gain familiarity with the collection of seawater and plankton for physiological and molecular analysis
- Gain familiarity with laboratory analyses including chlorophyll a fluorescence, ammonium measurements, and enzyme linked immunosorbent assays
- Gain experience applying algicide to control HABs in the laboratory
- Learn about a novel bio-control strategy to be deployed in Florida in the future

Mentor: The mentor for this opportunity is Kaytee Pokrzywinski (kaytee.pokrzywinski@noaa.gov). If you have questions about the nature of the research please contact the mentor.

Anticipated Appointment Start Date: July 2023. Start date is flexible and will depend on a variety of factors.

Appointment Length: The appointment will initially be for four weeks in the summer, but may be renewed upon recommendation of NOAA and is contingent on the availability of funds.

Level of Participation: The appointment is full-time.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience.

Citizenship Requirements: This opportunity is available to U.S. citizens.

ORISE Information: This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and NOAA. Participants do not become employees of NOAA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

Questions: If you have questions about the application process please email NOAA@orau.org and include the reference code for this opportunity.

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Qualifications

The qualified candidate should currently be pursuing a High School Diploma/GED. Applicants must be 16 years or older.

Preferred skills:

- The ideal candidate will have some experience in a laboratory, a demonstrated ability to work independently and part of a team, and have a passion for understanding marine systems.

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Currently pursuing a High School Diploma/GED.
- **Overall GPA:** 3.75
- **Discipline(s):**
  - **Environmental and Marine Sciences** (6 👁)
- **Age:** Must be 16 years of age