C-StREAM Fellowship Program Position

Investigating the cHAB *Microseira wollei* in the Tidal Freshwater Potomac

The Chesapeake Student Recruitment, Early Advisement, and Mentoring Program (C-StREAM) is an inclusive program focused on recruiting, advising, and mentoring college students who identify as people of color, persons with disabilities, members of the LGBTQAI+ community, persons from economically disadvantaged backgrounds, and first-generation college students who are currently pursuing an undergraduate degree. C-StREAM is designed to advance the participation of students from diverse communities in environmental science, protection, restoration, education, management, and policy careers. C-StREAM endeavors to support this goal by developing inclusive career pathways that result in greater diversity in the environmental workforce.

Project Description and Opportunities

The Fellow will assist in on-going studies of the cHAB (cyanobacterial Harmful Algal Bloom) organism *Microseira wollei* in the Jones lab at Potomac Environmental Research and Education Center (PEREC) in Woodbridge, Virginia. This organism has become prominent in tidal freshwater areas of the Chesapeake Bay and Potomac River. The fellow will help with fieldwork sampling areas of suspected *M. wollei* growth and helping map its development in the tidal Occoquan River. By assisting ongoing researchers and graduate students, the fellow will get training in field sampling, microscopy, chlorophyll and phycocyanin lab procedures, and ELISA approaches to measuring toxins. In addition to helping the existing team, the Fellow will be assigned a specific component of the research which they will be responsible for investigating with the techniques learned. A successful fellow should be able to present a poster on their work at a conference like AERS in the fall or spring.

Responsibilities and Deliverables

- Literature review of benthic cHAB studies from publications and current work in the Jones lab at PEREC
- With the help of PEREC researchers, develop a research plan for the internship
- Learn techniques for sampling cHABs and quantifying their abundance
- Learn and practice chlorophyll a, phycocyanin, and organic weight measurements on algal mats
- Learn microscopy techniques and apply them to the cHAB study
- Process and assemble data which they collect

- Relate their data to other data on *M. wollei* being collected in the lab
- Develop a report along the lines of a scientific paper covering their work
- Present findings at the C-StREAM symposium at the conclusion of the fellowship summarizing work performed and skill developed

Eligibility

- Must be a college-level student entering sophomore, junior, or senior year of undergraduate study in the fall of 2025 or current seniors graduating in May of 2025.
- Must be legally authorized to work in the United States as a US citizen or national, asylee, refugee, or lawful permanent resident and willing to undergo a security background check.

Desired Qualifications

- Courses in general chemistry, general biology, and basic statistics
- Motivated self-starter with the ability to work proactively, but unafraid to ask questions when needed
- Good teamwork skills and ability to work well with others
- Intellectually invest in the work and share findings with other team members

Work Location and Duration

The work is based at the Potomac Environmental Research and Education Center (PEREC) at the Potomac Science Center (PSC) at 650 Mason Ferry Avenue in Woodbridge, VA. The fellowship is scheduled to begin on May 19, 2025, and end Friday, August 8, 2025. These are our preferred dates, but the dates can be adjusted to accommodate a student's school schedule if required. Federal holidays will be observed.

Compensation

The Fellow will receive a stipend at the end of each month, for a total of up to $6,000 for the equivalent of 12 weeks of full-time activities. Candidates should expect to follow a normal weekday work schedule (roughly 9-5, M-F) with occasional variations for possible field work or other activities. No benefits are provided. A one-time housing and transportation allowance of $1,000 is available to each Fellow to assist with living and transportation expenses. Funds are also available to compensate Fellows for occasional work-related travel and professional development activities.

Diversity and Inclusion

The Chesapeake Research Consortium and the Potomac Environmental Research and Education Center are committed to supporting a diverse and inclusive science-oriented workforce. Our fellowship program endeavors to recruit from a diverse, qualified group of potential applicants to secure a high-performing workforce drawn from all segments of American society. We are

strongly supportive of broadening the participation of historically black colleges and universities, Hispanic serving institutions, tribal colleges and universities, and institutions that work in underserved areas. We highly encourage applications from students at any of the above institutions as well as students that identify as people of color, persons with disabilities, members of the LGBTQAI+ community, persons from economically disadvantaged backgrounds, and first-generation college students.

Application Instructions

Application instructions, required materials, and the C-StREAM application portal can be found on the C-StREAM website (http://chesapeake.org/c-stream/).

The deadline for applications is February 14, 2025.