## **US Harmful Algal Bloom Control Technologies Incubator** (US HAB-CTI)

Dr. Allen R. Place

2025 Funding Cycle

Director

Professor, Institute of Marine and Environmental Technology **University of Maryland Center for Environmental Sciences** 

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**Mote Marine Laboratory** 

**November 13, 2024** 

\*All participant lines are muted. Please post questions in the chat. Webinar is being recorded.



#### **Partners**

- National Oceanic and Atmospheric Administration
- University of Maryland Center for Environmental Science, Institute of Marine and Environmental Technology
- Mote Marine Laboratory









### **Objectives of US HAB-CTI**

Accelerate the assessment and development of technologies that are **feasible**, **environmentally acceptable**, **scalable**, and **cost-effective**.

Goal is to streamline the development of effective, real-world HAB control solutions by providing funding, permitting guidance, and research equipment assistance.

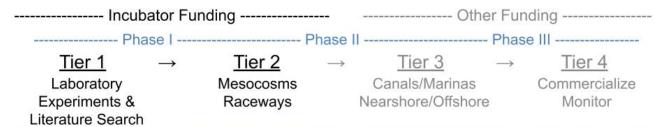
- **Funding source:** Funds small (<\$200,000), short term projects (~1 year) of <u>freshwater and</u> <u>marine</u> HAB control technologies still in the initial stages, Tier 1 (Laboratory Experiments) and Tier 2 (Mesocosms/Tanks/Raceways), of research.
- Clearinghouse website: Under development. A place where people can go to find information about existing technologies, as well as regulatory and permitting guidance for approval of novel control tools/technologies in field research and for management of HAB events.
- **Equipment assistance**: The Mote Red Tide Initiative facility and IMET laboratory facility can assist project investigators without the expertise, capabilities, and biosafety certifications to conduct HAB research. Can ramp up culturing and run laboratory and mesocosm studies, analyze toxins associated with HABs, and assess changes to phytoplankton community composition.



#### Requests For Proposals

- Annual RFP ~\$1 Million for lab/tank-based projects
- Each award less than \$200,000
- Contracts not to exceed 12 months
- Promising US HAB-CTI projects will be encouraged to apply to larger funding opportunities like NOAA Prevention, Control, and Mitigation of HAB funding or other opportunities

#### US Harmful Algal Bloom Control Technologies Incubator Research Projects





-Effects on the Cells and Toxins in the Lab -Previous Uses Worldwide -Existing Regulatory Approvals



-Effective with Natural Communities -Ecological Impacts -Human Health Concerns -Logistical Issues -Economically Feasible



-Pilot Studies
-Field Demonstrations
-Federal/State/Local
Regulatory Approvals
-Engineering Needed
-Public Interactions



-Customers
-Intellectual Property
-Efficiency Scaling
-State/Local Budgets
-Deployment Contractors



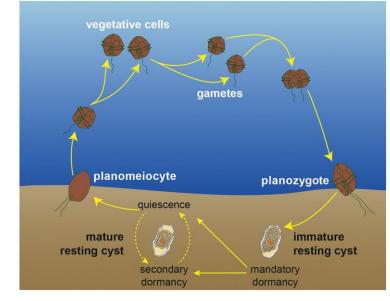
#### 2025 Requests For Proposals

- Harmful Algal Bloom control includes biological, chemical, or physical approaches that eliminate
  or reduce the levels of harmful algae and/or their toxins (do not fund strictly nutrient
  management).
- Can focus on controlling any algae that is an issue in the coastal/estuarine/Great Lakes region of the United States including toxic and noxious phytoplankton, cyanobacteria, benthic algae, and macroalgae.

The tools and/or technologies should demonstrate potential to be scalable, environmentally

acceptable, and cost-effective.

- The US HAB-CTI 2025 call for proposals is open to projects on control at all stages of HAB development, but for this competition, projects aimed at researching the control of cyst beds are strongly encouraged.
- Proposals requesting funding for conducting legal research (≤\$50K) or collecting data (≤\$100K) required for federal permitting and registration of proven algicide will be considered.





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# General Timeline

December 9 (11:59pm EST): Letter of Intent Deadline - REQUIRED

March 3 (11:59pm EST): Full Proposal Deadline

June: Award notification

September 1, 2025 - August 31, 2026: Subaward Project Period



#### Letter of Intent (LOI)

- LOIs <u>are</u> required
- Reviewed by US HAB CTI Executive Board
- LOI process is to provide information to potential applicants on the relevance of their proposed project and the likelihood of it being competitive in advance of preparing a full application
- Decision to submit a full proposal is entirely up to the applicant
- Submit via email to <u>ushabcti@umces.edu</u> with the heading "HABCTI25:\_name of project"
- 2 page max, single spaced in 12-point font with 1-inch margins and should include:
  - Project Title
  - Principal Investigator(s) Name(s), Title(s), Affiliation(s), and Contact Information
  - Statement of Work Narrative
  - Estimated Budget
- Response by approximately January 1, 2025 (Recommended, Maybe, Not Recommended for full proposal)



#### Request For Full Proposals

- Following LOI process, final decision to submit a Proposal is made by applicant
- Reviewed by External HAB/Related Experts
- Submit via smarterselect on US HAB CTI Website (on IMET Website) <a href="https://imet.usmd.edu/application-resources">https://imet.usmd.edu/application-resources</a>
- Document Checklist
  - One-page Abstract/Project Summary
  - Project Narrative/Scope of Work (max 5 pages)
    - Project Significance
    - Objectives
    - Scientific Testing/Methodologies
    - Future Applicability including potential future costs, ability for technology to receive permits, intended systems of use/scalability, and secondary benefits and impacts
    - Timeline
    - · Roles and qualification of all team members
    - Facilities being used
    - History of the mitigation tool/technology including previous/existing uses, research, and regulatory approvals, if any.
    - Literature cited (not included in page limit)
  - Resume/CVs
  - SF424A Budget and Budget Narrative
  - Letters of Support or Collaboration (optional)
- \*No Cost Sharing or Matching are Required under the US HAB CTI\*
- Award Notification ~June 2025 with start date September 1, 2025



#### **Evaluation Criteria**

- Importance and relevance of the proposed project to the US HAB-CTI goals (30%)
  - Does the proposal focus on a HAB control technology or approach?
  - Is the research new or novel or provide a unique approach/significant improvement to an existing technology?
  - Is the proposed work still in the initial stages of control research (Tier 1 and 2)?
- Technical/Scientific merit (30%)
  - Is the approach technically sound and/or innovative?
  - Are the methods are appropriate?
  - Are there are clear project goals and objectives?
- Future applicability (20%)
  - If the lab-based research findings are successful, could the control/mitigation technology be permitted through federal and state agencies?
  - Could the control/mitigation technology be scaled up (engineering and deployment) for field application?
  - Could the control/mitigation technology be cost-effective for regular field control/mitigation use?
  - Will the outcome of the control/mitigation research benefit communities/economies through secondary ecosystem services?
- Overall qualifications of applicants (10%)
  - Does the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project?
- Project costs (10%)
  - Is the budget adequate/reflective of the proposed work?

#### **Sub-award Details**

- Open to any/all applicants businesses, academic institutions, government entities, NGO's, etc.
- Funding is not intended for large capital infrastructure/equipment rather for salaries, travel, facility use, specific project related lab supplies.
- Funding will not be provided for conferences/other travel beyond those necessary to conduct the proposed research
- Funding is being provided by NOAA under Cooperative Ecosystem Studies Unit (CESU) requirements.
  - Sub-award institutions do not have to be members of an eligible NOAA approved CESU, but they
    must adhere to the relevant CESU guidelines and use the established CESU indirect cost rate:
     17.5% applied to Modified Total Direct Costs.
  - A 15% de minimis indirect cost rate may be used by any non-federal entity that has never received a negotiated indirect cost rate. This rate would be charged against modified total direct costs.
- All sub-awards will have cost reimbursable agreements which can be billed quarterly with supporting financial documentation.
- Quarterly Technical Reports and Final Technical Reports will be due for the projects
- Quarterly Calls between USHAB-CTI Program Managers/Directors and sub-awardees



# Mote/IMET Facilities: Available for US HAB-CTI Use

\*Details and Costs on US HAB-CTI Website



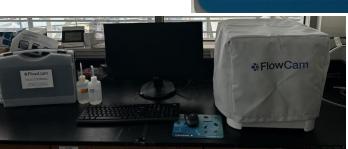


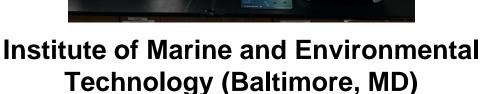


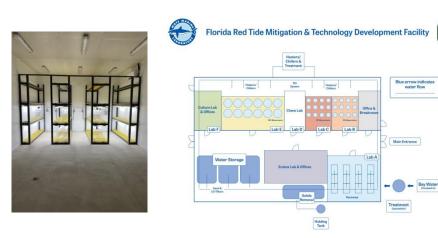




















#### **Anticipated Questions**

- Can more than one LOI and/or RFP be submitted? Yes
- How many sub-awards will be given? Estimated at 5-7, depends on award amounts.
- May I include using the IMET or Mote facilities in the LOI/RFP application? Yes, please contact IMET or Mote PI's or scientists for detailed questions on facility capabilities and HAB culturing before submitting a full proposal.
- How is Intellectual Property handled for US HAB CTI projects and findings?
  - The rights to any invention made by a University employee or other nonprofit research organization at an Institute under the cooperative agreement with NOAA are determined by the Bayh-Dole Act, Pub. L. 96-517, as amended, and codified in 35 U.S.C. 200 et seq. The specific rights and responsibilities are described in more detail in 37 CFR Part 401 and in particular, in the standard patent rights clause in 37 CFR 401.14.
  - Reference the NOAA Cooperative Institute Handbook and there will be Special Award Conditions in the Sub-award for Data and Information
- Will there be another LOI/RFP application opportunity occur in 2025? Yes



#### **Questions? Please Type Into Chat.**

Send additional questions to <u>USHABCTI@umces.edu</u>

