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

2026 Funding Cycle

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

^{*}Any additional questions, please email ushabcti@umces.edu



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, research equipment assistance and permitting guidance.

- Funding source: Fund small (<\$200,000), short term projects (~1 year) of <u>freshwater and</u> marine HAB control technologies still in the initial stages, Tier 1 (Laboratory Experiments) and Tier 2 (Mesocosms/Tanks/Raceways).
- 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. *Clearinghouse Coordinator Position Now Hiring - contact ushabcti@umces.edu*
- Equipment assistance: The Mote Red Tide Initiative facility, IMET laboratory facility, and
 Moss Landing Marine Laboratories 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.



2026 Requests For Proposals

- Total funding available: \$1,000,000
- Anticipated number of awards: 5-7 projects
- Duration: September 1, 2026 August 31, 2027
- Each award must be less than \$200,000 (17.5% MTDC indirect)
- Eligibility: Institutions of higher education, nonprofit and for profit organizations, and federal, state, local, and tribal governments that possess the statutory authority to receive transfers of funds. International researchers must be part of an eligible entity.
 - *Federal and International researchers may be subject to additional requirements.

 Please contact ushabcti@umces.edu for more information*
- 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



2026 Requests For Proposals

 Harmful Algal Bloom control includes biological, chemical, or physical approaches that directly eliminate or reduce the levels of harmful algae and/or their toxins

Do not fund strictly nutrient management/control studies

• 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.

It is anticipated that the tools and technologies are still in the initial stages (Tier 1 or 2) of

research.

• The research project must be conducted in small scale lab testing, tanks, mesocosms, or raceways.



-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



2026 Requests For Proposals

- Proposals requesting funding for conducting legal research (≤\$50K) or collecting data (≤\$100K) required for federal permitting and registration of proven algicide will be considered.
- This call is open to projects that include, but are not limited to:
 - Cyst bed control technologies
 - Combination of physical/chemical/biological strategies in unison
 - New modes of delivery for algicides
 - Food-grade products
 - Specific EPA product permit requirements like byproducts, environmental fate, and toxicity to other species
 - Testing successful control methods on alternative ecosystems/species



Tools/Technologies should demonstrate potential to be:

Environmentally acceptable

Will the control tool likely impact non-targeted organisms?

Feasible

- Can the control method realistically be approved for use? What would the time and cost be for approval?
 - Using algicides in these large systems require compliance with the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and Food Drug and Cosmetic Act (FDCA)
 - Consider using active and inert ingredients that are already approved from food use (Can look at EPA Inertfinder, EPA Pesticide Chemical Search, or the general EPA CompTox Chemicals Dashboard)

Scalable

Can the tool realistically be used in large systems like coasts and Great Lakes?

Cost-effective

How much is it likely going to cost to use the control technology if effective?

General Timeline

December 22 (11:59pm EST): Letter of Intent Deadline - REQUIRED

~January 20: Emailed response to letter of intent

March 16 (11:59pm EST): Full Proposal Deadline

June: Award Notification

September 1, 2026 – August 31, 2027: 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 "HABCTI26:_name of project"
- 2 page max, single spaced in minimum 11-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 20, 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) https://imet.usmd.edu/application-resources
- 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)
 - Current and Pending Research Projects
 - Data Management Plan
 - 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 2026 with start date September 1, 2026



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 appropriate?
 - Are there 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

- 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.
- 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/Director and sub-awardees



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

*Details and Costs on US HAB-CTI Website





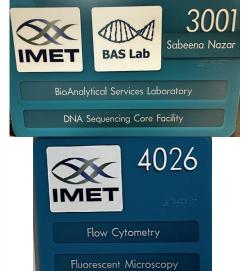














Institute of Marine and Environmental Technology (Baltimore, MD)





Moss Landing Marine Laboratories

For more information or to discuss collaboration opportunities, please contact Dr. Holly

Bowers at holly.bowers@sjsu.edu





Resources include:

- Culturing capabilities
- Large incubator space for small flask experiments
- Grow room for scaled-up cultures and experiments
- Bioreactor
- Outdoor space for large mesocosms and raceway tanks
- Treated and re-circulated seawater
- Benchtop and office space available for visiting scientists





Moss Landing Marine Labs has two facilities devoted to wet lab research. Both facilities are supplied with filtered seawater from Monterey Bay at a rate of 450 gallons per minute (GPM). The aquaculture facility is a one-acre, oceanfront property which houses numerous arrays of tanks of different sizes ranging from 40 to 3000 gallons with replication. The aquarium room is another facility provided with flow-through filtered seawater. It is housed on the main campus of MLML. The facility is a 1500 sqft and is equipped with water tables and associated small tanks, an algal culturing room (test tubes, flasks, carboys and up to 200L Kalwalls vessels) and two photobioreactors for large scale (1200 L) microalgae culture. Seawater (both incoming and outgoing) is able to be filtered to 1 um and treated with UV radiation. In addition to these experimental tanks, the shore lab is also home to Monterey Bay Seaweeds and Monterey Abalone Companies' nursery.



Questions? Please Type Into Chat.

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

