

2010 Request for Proposals for NOAA Scientists and Partners on Oceans, Coasts, and Great Lakes Sensors for Human and Marine Animal Health

Background and Scope

The ability to rapidly and accurately monitor and assess ocean and coastal-related human and marine animal (marine mammals, corals, sea turtles –and other sentinel organisms) health threats, including biological effects of climate change that have human and marine organism health implications, lags far behind the capacity to detect physical changes in the oceans and atmosphere. This significant capability gap is the target of this funding opportunity provided under the Ocean Research Priorities Plan and Implementation Strategy (ORPPIS) “Sensors for Marine Ecosystems” near term priority.

This RFP is designed to engage NOAA scientists, Science Centers, and Laboratories in the development, engineering, and testing of ocean and coastal sensors for detection of pathogens, chemical contaminants, and harmful algae and their toxins, that affect human or marine animal health. Partnerships with NOAA Oceans and Human Health Initiative (OHHI) Centers of Excellence, Integrated Ocean Observing System (IOOS) Regional Associations**, public health and natural resource management agencies, academia, or the private sector are highly encouraged.*

Proposals submitted in response to this funding opportunity should meet the scientific, institutional, and format requirements below. They will be peer-reviewed through the OHHI program office. Approximately \$1 million are available for this FY10 competition. We expect to fund between 3-7 proposals but there is no lower limit on award amounts. Proposals must have deliverables for Fiscal Year 2010, but be written with the capacity to build on this work in future years if funding is available.

Scientific Objectives and Requirements:

These funds are targeted to advance the development and testing of ocean and coastal sensors for detection of pathogens, chemical contaminants, and harmful algae and their toxins that affect human or marine animal health. **Proposals must have a NOAA lead researcher.** Applicants are encouraged to work across NOAA and with external academic, public or private sector partners. Funds may be used both internal to NOAA and to support external partners. The following scientific objectives and other considerations will be used in evaluating proposals:

- 1) Proposals must address research, tool/technology development, engineering or testing of sensors, including *in situ* or biological sensors, for detection and identification of ocean- or coastal- borne human and marine animal health threats from marine toxins, pathogens, and chemical contaminants for use in:
 - a. integrated disease or other health diagnostic observing, monitoring or surveillance systems to protect public health and reduce public health risks;
 - b. public health risk assessments and forecasts;
 - c. marine animal health risk assessments and forecasts, especially as they may indicate threats to human health;

- d. assessment and prediction of human health risks related to seafood, drinking water, direct exposure, and changes in coastal and ocean ecosystems;
 - e. operational testing within IOOS or other ocean observing systems, health early warning test-beds, or integrated health or disease surveillance systems.
- 2) Proposed work must fill a demonstrated knowledge gap in detection, monitoring, and prediction, and must respond to a demonstrated public health, or marine animal health, need.
 - 3) Proposals must include one or more partners and a plan for transition to operations. If the proposed work is an early stage research and development effort, the proposal must include a brief description of expected time and process to demonstrate feasibility for eventual transition to operations.
 - 4) Proposals must include a public health or marine animal health management partner with demonstrated need for improved biological sensing or detection capability.
 - 5) Collaborations with one or more of the following: IOOS Regional Associations, OHHI Centers of Excellence, OHHI Consortia for Graduate Traineeships, NOAA Regional Teams, other NOAA partners, or other academic, public, or private sector partners are strongly encouraged.
 - 6) The proposal must specify the project goals and outcomes, products and deliverables, timelines, and transition to operations plan.
 - 7) Budget page must be specific about project costs, (purchases, salaries, and other award expenditures), mechanisms for payment (i.e. BOP, contract, cooperative agreement, or other existing mechanism), and other financial or substantial in-kind resources contributing to the proposed effort. Funds may be spent internal to NOAA, or with external partners or both, but must be obligated by September 30, 2010. The proposal must include the mechanisms to be used to obligate funds, and a timeline.

Proposal Requirements:

Proposals should be 10 pages or less, 12 point font and include:

- a) **Problem Statement**--Description of the problem, scientific question and need for the sensor(s), who will care, and why
- b) **Partners**--Institutions, including contact information
- c) **Work Plan**—including goals, methods, experimental design if appropriate, lead personnel, etc, through FY10 which addresses the above requirements and includes a general description of follow-on work to be continued if funding allows
- d) **Deliverables**--Proposed deliverables or outcome and timeline
- e) **Transition to operations**—a plan for transitioning the proposed sensor to operational system. If still in the research and development stage, the proposal must include an assessment of the financial and technical feasibility, and time frame, for transitioning the sensor(s) to operations in the future.
- f) **Budget**-- provide a budget line for each project or activity, method of payment, and separate line for any funds leveraged from other programs
- g) **Communication Plan**—a plan for communication within your team, to OHHI and NOAA, and with the media or other public entities if appropriate.
- h) **Additional Materials**—Curriculum vitae of *two pages maximum* are required for each investigator, as well as letters of support from collaborating institutions. These will not be counted against the 10 page limit.

Funding Availability and Timing:

Approximately \$1,000,000 is available for this FY10 competition. We expect to fund between 3-7 proposals but there is no lower limit on award amounts. Proposals should have deliverables for FY10, but be written with the capacity to build on this work in future years if funding is available. Meritorious proposals not awarded in the FY10 competition may also be considered for funding in future years, if funding is available. While no matching funds are required, leveraging of funds is highly encouraged.

Proposal Submission:

Proposals are due by May 13, 2010, 12 p.m. (noon) Eastern Time. Proposals may be submitted electronically or by mail to Bree.Thompson@noaa.gov with a copy to Juli.Trtnanj@noaa.gov or to Bree Thompson, NOAA Oceans and Human Health Program, SSMC3-10353, 1315 East-West Highway, Silver Spring, MD 20190. Phone: 301-713-0524, ext 189. We expect to review the proposals and have award decisions by June 15, 2010. Funds must be obligated by September 30, 2010. Applicants are encouraged to provide names and contact information for knowledgeable and unconflicted reviewers.

Evaluation Criteria:

1. Importance, relevance and applicability of proposed project to the RFP's stated objectives: (35%)

This ascertains whether the proposal is responsive to the objectives and requirements stated in the RFP. Proposals should also address significance/possibilities of securing productive results, i.e., does this project address an important problem? If the aims of the application are achieved, how are public health and/or marine animal or ecosystem health protected? Will the project challenge existing paradigms or develop new methodologies or technologies, and if so, what effect will the results have on concepts or methods that drive this field?

2. Technical/scientific merit: (35%)

This assesses whether the approach is technically sound and if the methods are appropriate, and whether there are clear project goals and objectives consistent with the objectives stated above. Proposals should address the approach/soundness of design and reviews will consider the following questions: Are the conceptual framework, design, methods, and analyses adequately developed, well integrated, and appropriate to the aims of the project? Does the applicant acknowledge potential problem areas and consider alternative approaches? Does the proposal contain a plan and intended end-user for testing and transitioning the sensor to operational capacity?

3. Overall qualifications of applicants and partners: (10%)

This ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project. If appropriate, proposals

should also address the physical environment and collaboration. Does the project involve an OHHI Center of Excellence or Consortium for Graduate Training (see below for description), an IOOS Regional Association, or a public health or natural resource manager? Does the environment in which the work will be done contribute to the probability of success? Do the proposed experiments or activities take advantage of unique features of the intended environment or employ useful collaborative arrangements?

4. Project costs: (10%)

The Budget is evaluated to determine if costs are reasonable, allowable, allocable and necessary, and if they are realistic and commensurate with the project needs and time-frame. Does the proposal effectively describe expenditure of FY2010 funds, and lay out a path for future work if needed?

5. Outreach, education, and communication: (10%)

How will communication within the team occur and be sustained? How will the progress and outcomes of the project be communicated to and within NOAA, project partners, the broader academic and marine sensors community, and the interested public to ensure it has met the project objectives over the short, medium or long term? Does the project involve graduate or post-doctoral students?

Review Process

Proposals will be reviewed by an expert panel comprised of representatives from academia, private research institutions, NOAA, or other Federal agencies. The panel will rate the proposals in each selection criteria category individually and then place them in overall rank order based on individual proposal scores. The panel will make final selection recommendations to NOAA/OHHI based on this process. NOAA/OHHI will make final decisions on funding. NOAA/OHHI will select awardees based on the rank order provided by the review panel, unless one or more proposals is justified to be selected out of rank order based upon one or more of the following factors:

1. Availability of funding
2. Balance/distribution of funds
 - a. Geographically
 - b. By type of institution
 - c. By type of partners
 - d. By research areas
 - e. By project types
3. Whether the project duplicates other projects funded or considered for funding by NOAA or other federal agencies.
4. Program priorities
5. Applicant's prior award performance
6. Partnerships and/or participation of targeted groups
7. Adequacy of information necessary to make a decision

Contact Information for NOAA Partners

Please note: questions about the RFP should be directed either to Juli Trtanj (juli.trtanj@noaa.gov), or Tracy Collier (tracy.k.collier@noaa.gov).

NOAA Centers of Excellence in Oceans and Human Health

West Coast Center of Excellence for Oceans and Human Health

<http://www.nwfsc.noaa.gov/ohh/>

POC: Usha Varanasi (usha.varanasi@noaa.gov)

Phone: (206) 860-3200

Center of Excellence for Oceans and Human Health at Hollings Marine Laboratory

<http://www.hml.noaa.gov/ohh/ohhi/default.aspx>

POC: Lori Schwacke (lori.schwacke@noaa.gov)

Phone: (843) 762-8868

Center of Excellence for Great Lakes and Human Health

<http://www.glerl.noaa.gov/res/Centers/HumanHealth/>

POC: David Schwab (david.schwab@noaa.gov)

Phone: (734) 741-2120

OHHI Consortia for Graduate Training

Pacific Northwest Consortium for Pre- and Post-doctoral Traineeships in Oceans and Human Health

<http://www.wsg.washington.edu/education/fellowships/ohh.html>

POC: Ginger Armbrust (armbrust@u.washington.edu)

Phone: (206) 616-1570

Georgia Oceans and Human Health Initiative Graduate Training Consortium

<http://www.publichealth.uga.edu/ehs/academics/GOHI.html>

POC: Erin Lipp (elipp@uga.edu or GOHI.UGA@gmail.com)

Phone: (706) 583-8138

Training Tomorrow's Ecosystem and Public Health Leaders Using Marine Mammals as Sentinels of Oceanic Change

http://www.vetmed.ucdavis.edu/whc/training/oceans_training.cfm

POC: Jonna Mazet (jkmazet@ucdavis.edu)

Phone: (530) 752-4167

Interdisciplinary Research and Training Initiative on Coastal Ecosystems and Human Health

<http://www.i-rich.uconn.edu/>

POC: Evan Ward (evan.ward@uconn.edu)

Phone: (860) 405-9073

HML Consortium for Research Training in Oceans and Human Health

POC: Eric Lacy (lacyer@musc.edu)

Phone: (843) 876-2052

IOOS Regional Associations

AOOS (Alaska Ocean Observing System)

<http://ioos.gov/partners/aoos.html>

<http://www.aoos.org/>

POC: Molly McCammon (mccammon@aoos.org)

NANOOS (Northwest Association of Networked Ocean Observing Systems)

<http://ioos.gov/partners/nanoos.html>

<http://www.nanoos.org/>

POC: Jan Newton (newton@apl.washington.edu)

CeNCOOS (Central & Northern California Ocean Observing System)

<http://ioos.gov/partners/cencoos.html>

<http://www.cencoos.org/>

POC: Steve Ramp (sramp@mbari.org)

PacIOOS (Pacific Islands Ocean Observing System)

<http://ioos.gov/partners/pacioos.html>

<http://www.soest.hawaii.edu/pacioos/>

POC: Brian Taylor (taylorb@hawaii.edu)

SCCOOS (Southern California Coastal Ocean Observing System)

<http://ioos.gov/partners/sccoos.html>

<http://www.sccoos.org/>

POC: Julie Thomas (jot@splash.ucsd.edu)

GCOOS (Gulf of Mexico Coastal Ocean Observing System)

<http://ioos.gov/partners/gcoos.html>

<http://gcoos.tamu.edu/>

POC: Worth Nowlin (wnowlin@tamu.edu)

CaRA (Caribbean Regional Association)

<http://ioos.gov/partners/cara.html>

<http://cara.uprm.edu/>

POC: Julio Morell (julio.morell@upr.edu)

SECOORA (Southeast Coastal Ocean Observing Regional Association)

<http://ioos.gov/partners/secoora.html>

<http://www.secoora.org/>

Debra Hernandez (debra@secoora.org)

(MACOORA) Mid-Atlantic Coastal Ocean Observing Regional Association

<http://ioos.gov/partners/macoora.html>

<http://www.macoora.org/>

POC: Judith Krauthamer (Judith.Krauthamer@macoora.org)

NERACOOOS (Northeast Regional Association of Coastal Ocean Observing Systems)

<http://ioos.gov/partners/neracoos.html>

<http://www.neracoos.org/>

POC: Ru Morisson (Ru.Morrison@neracoos.org)

GLOS (Great Lakes Observing System)

<http://ioos.gov/partners/glos.html>

<http://glos.us/>

POC: Jennifer Read (jread@glos.us)

NOAA Regional Teams

Alaska Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/alaska.html

POC: Amy Holman (amy.holman@noaa.gov)

Central Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/central.html

POC: Bethany Hale (Bethany.a.hale@noaa.gov)

Great Lakes Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/great_lakes.html

POC: Jennifer Day (Jennifer.day@noaa.gov)

Gulf of Mexico Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/gulf_of_mexico.html

POC: Kristen Laursen (Kristen.r.laursen@noaa.gov)

North Atlantic Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/north_atlantic.html

POC: Nicole Bartlett (Nicole.bartlett@noaa.gov)

Pacific Islands Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/pacific_regional.html

POC: Laura Hamilton (laura.hamilton@noaa.gov)

Southeast and Caribbean Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/southeast_and_caribbean.html

POC: Geno Olmi (geno.olmi@noaa.gov)

Western Regional Team

http://www.ppi.noaa.gov/PPI_Capabilities/western.html

POC: Timi Vann (timi.vann@noaa.gov)