

## INITIAL ANNOUNCEMENT OF A NOTICE OF REQUEST FOR PROPOSALS

### EXECUTIVE SUMMARY

- **Federal Agency Name(s): National Sea Grant College Program, National Oceanic and Atmospheric Administration, Department of Commerce**
- **Funding Opportunity Title: Oyster Disease Research Program**
- **Announcement Type: Notice of request for proposals**
- **Funding Opportunity Number: Oyster Disease Research Program 2005-1**
- **Catalog of Federal Domestic Assistance (CFDA) Number(s): 11.417. Sea Grant Support.**
- **Dates:** Applications must be received by 4 p.m. (local time) on August 27, 2004 for pre-proposals and by 4 p.m. (local time) November 16, 2004 for full proposals by a state Sea Grant Program [or by the National Sea Grant Office (NSGO) in the case of an applicant in a non-Sea Grant state]. Applications are to be forwarded to the NSGO by the state Sea Grant Programs and received by 4 p.m. EST on September 2, 2004 for pre-proposals and by 4 p.m. EST on November 23, 2004 for full proposals.
- **Funding Opportunity Description:** The purpose of this notice is to advise the public that the National Sea Grant College Program (Sea Grant) is entertaining proposals to participate in innovative research, outreach and demonstration to continue the Oyster Disease Research Program. Approximately \$2 million is available for the Oyster Disease Research Program in FY 2005 and a similar amount is expected for FY 2006. Therefore, two-year proposals are being accepted. The Oyster Disease Research Program seeks to fund innovative research that provides technology and management strategies to combat oyster disease and bring about the restoration of oysters and the oyster industry in U.S. coastal areas.

### FULL ANNOUNCEMENT TEXT

#### **I. Funding Opportunity Description**

##### **A. Program Objective**

The Oyster Disease Research (ODRP) program was initiated by Congressional mandate in 1990 after disease was identified as a major factor in the decline of the mid-Atlantic oyster industry. Other coastal regions in the U.S. including the Gulf Coast and the Pacific Coast were also experiencing significant oyster mortalities.

The ODRP has made significant accomplishments in the areas of disease diagnosis, immune system function of oysters, range and virulence of existing diseases, modeling and

prediction of oyster diseases in the natural environment, oyster disease resistance through genetic selection and a variety of other technologies. Even though significant scientific information has been obtained through this work and we now have an oyster that has improved performance and survivability under field conditions; disease episodes can still be severe enough to prevent the culture and natural recovery of oysters. More research is clearly needed to improve the survivability of oysters in U.S. coastal waters and to improve technology for disease management and control.

## **B. Program Priorities**

Primary consideration for funding will be given to proposals that address the specific priorities listed below. The following priorities were originally determined at a national workshop in January of 1995 and further refined at the Oyster Disease Research Program session during the International Shellfish Restoration Conferences in 1996 and 2000, and at other programmatic and scientific reviews in 2001 and 2002, and more recently at a major workshop held in Annapolis in September of 2003. Applicants should refer to the research objectives derived from this last meeting at: <http://www.mdsg.umd.edu/oysters/workshop/summary.html>.

1. Design, apply and evaluate disease management strategies for native oysters and their effectiveness for enhanced natural and aquaculture production. There are many issues related to establishment of oyster sanctuaries, configuration of commercial oyster beds, oyster aquaculture, remote setting, use of natural seed, bottom cleaning before setting, cultch type, etc., which should be addressed as related to the impacts and management of disease. Activities that involve private sector, state restoration programs and extension/outreach in the implementation of research results and field trials using diagnostic methods, and other disease related technology and information for improved oyster disease management or oyster culture are appropriate under this priority.

2. Evaluate survival and environmental impacts of non-native oyster species in relation to disease. Activities that include private sector, state restoration programs and extension/outreach in the implementation of research results and field trials using diagnostic methods, and other disease-related technology and information for improved oyster disease management or oyster culture are appropriate under this priority.

3. Development and application of selective breeding strategies for disease-resistant oysters. We are seeking studies that develop molecular/biochemical markers for breeding resistance into oysters, as well as genome analysis and gene transfer techniques related to oyster resistance.

4. Ensure that the selective breeding program for producing the right oyster(s) for aquaculture and restoration employ established quantitative genetic methods.

5. Development and testing of geographic and mathematical models to improve understanding of disease dynamics: a basic model now exists and new work this area must clearly state how additional investment will take us to an even better level of prediction or disease management.

6. Parasite life cycles and the dynamics and mechanisms of transmission: investigations of selected aspects of the life cycles of oyster pathogens, especially MSX and *Perkinsus*, and the dynamics/mechanisms of disease transmission among host organisms.

7. Host-parasite interactions: investigations which determine how pathogens avoid host defense mechanisms, biochemically characterize *Perkinsus* strains, determine factors which confer

virulence to *Perkinsus* strains, determine mechanisms of infection/entry into the host, or compare disease processes in oyster species are being sought.

8. Mechanisms of disease resistance: continued emphasis is placed on studies concerning cellular/molecular mechanisms of disease infection and resistance in *Crassostrea* spp. and studies which determine the mechanisms of immune response in oysters. In addition, analysis of host defense factors, the development of molecular markers of disease and stress resistance, the development of immuno-stimulants, the application of chemo-therapeutics, and the identification of pathogen virulence and resistance mechanisms are needed; as are studies comparing resistance among diploid and polyploid oysters.

9. Development and application of diagnostic methods for all oyster diseases: this program has already developed many diagnostic techniques for several disease organisms and new proposals will be expected to show a significant improvement over the techniques already developed.

10. Environmental influences on disease and oyster mortality: proposals that address the influence of biotic and abiotic factors upon host-parasite interactions are high priority. Also included are studies of the effects of eutrophication and other stresses upon disease dynamics, basic physiological and adaptation processes in both hosts and parasites, the mechanisms of the summer kill phenomenon, relationships between disease progression and climate, and the eco-physiology of *Perkinsus*.

11. Taxonomy, phylogeny and population studies of both hosts and parasites: emphasis continues on studies of variations in population susceptibility, host resistance and pathogen virulence. Also needed are investigations of the genetic structure of both hosts and parasites.

### **C. Program Authority**

Authority for the Oyster Disease Research Program is provided by 33 U.S.C. 1121-1131.

## **II. Award Information**

Approximately \$2 million is available for the Oyster Disease Research Program in FY 2005 and a similar amount is expected for FY 2006. Funding will be on an annual basis, with renewal dependent upon satisfactory demonstration of progress and availability of funds. Matching funds equal to at least 50 percent of the Federal funding must also be provided by the applicant to support the proposed budget for the project. Grants or Cooperative Agreements will be awarded depending upon the degree of government involvement. A Cooperative Agreement would be issued if the NOAA Program Manager plays a significant part in setting project priorities and assisting in meeting project goals. No limit has been placed on the budget for individual proposals so that multiple partners can come together to address the significant issues that are identified under the Program Priorities for this competition. We anticipate making six to ten awards per year. Anticipated start date for the grants is June 1, 2005.

## **III. Eligibility Information**

### **A. Eligible Applicants**

Individuals, institutions of higher education, nonprofit organizations, commercial

organizations, State, local and Indian tribal governments. Only those who submit preliminary proposals by the preliminary proposal deadline are eligible to submit full proposals. Those applicants submitting preliminary proposals by the preliminary proposal deadline that are not recommended by the pre-proposal review process would still be eligible to submit full proposals.

### **B. Cost Sharing or Matching Requirement**

The applicant must provide one dollar of match for every two dollars of Federal money received.

## **IV. Application and Submission Information**

### **A. Address to Request Application Package**

Application packages may be obtained from Sea Grant College Program Directors. The address of Sea Grant College Program Directors may be found on Sea Grant's World Wide Web home page (<http://www.nsgo.seagrant.org/SGDirectors.html>) or may also be obtained by contacting Dr. Jim McVey at the NSGO (mail address: National Sea Grant College Program, 1315 East-West Highway, R/SG, Rm 11838, Silver Spring, MD 20910; phone: 301-713-2451; or e-mail: [jim.mcvey@noaa.gov](mailto:jim.mcvey@noaa.gov)).

### **B. Content and Form of Application Submission**

To prevent the expenditure of effort on proposals that may not be successful, applicants must first submit preliminary proposals. Applications must adhere to the provisions under "Applications" and "Required Elements" below. Failure to follow these restrictions may result in applications being rejected without review.

#### **1. Applications (Preliminary Proposals)**

The original and nine (9) copies of the preliminary proposals must be submitted. The number of pages in the preliminary proposal must be in accordance with the page limitations specified under "Required Elements" (i.e. project description, resumes). All printed pages in the preliminary proposal must be on metric A4 (210mm x 297mm) or 8.5" x 11" paper with at least a 10-point font.

#### **2. Required Elements (Preliminary Proposals)**

Preliminary proposals must include the following three elements:

a. Signed title page: The title page should be signed by the Principal Investigator and should clearly identify the program area being addressed by starting the project title with "The Oyster Disease Research Program." Principal Investigators and collaborators should be identified by affiliation and contact information. The total amount of Federal funds and matching funds being requested or provided should be listed for each budget period, as well as the source of the matching funds. Preliminary proposals must include matching fund equivalent to at least 50% of the Federal funds requested.

b. A concise (2-page limit) description of the project, its experimental design, its expected output or products, the anticipated users of the information, and its anticipated impact. Applicants should use the Evaluation Criteria for additional guidance in preparing the preliminary proposals.

- c. Resumes (1-page limit) of the Principal Investigators.

In addition, applicants are encouraged (but not required) to include a separate page that lists names of potential reviewers who would be well qualified to review the proposal. Applicants may also identify individuals who they would prefer not to have review the proposal, including why. These suggestions will be considered during the review process.

### **3. Applications (Full Proposals)**

The original and nine (9) copies of the full proposals must be submitted. The number of pages in the full proposal must be in accordance with the page limitations specified under "Required Elements" (i.e. project description, vitae). All printed pages in the full proposal must be on metric A4 (210mm x 297mm) or 8.5" x 11" paper with at least a 10-point font.

### **4. Required Elements (Full Proposals)**

Full proposals must include the following seven elements:

- a. Signed Title Page: The title page should be signed by the Principal Investigator and the institutional representative and should clearly identify the program area being addressed by starting the project title with "Oyster Disease Research Program" as appropriate. The Principal Investigator and institutional representative should be identified by full name, title, organization, telephone number, e-mail address, and mailing address. The total amount of Federal funds and matching funds being requested should be listed for each budget period on this page.

- b. Project Summary: This information is very important. It is critical that the project summary accurately describes the research being proposed and conveys all essential elements of the research. The project summary should include: 1. Title: Use the exact title as it appears in the rest of the application. 2. Investigators: List the names and affiliations of each investigator who will significantly contribute to the project; start with the Principal Investigator. 3. Funding request for each year of the project, including matching funds if appropriate. 4. Project Period: Start and completion dates. Proposals should request a start date of June 1, 2005. This section should include the rationale for the project, the scientific or technical objectives and/or hypotheses to be tested, and a brief summary of work to be completed.

- c. Project Description (15-page limit): Brevity will assist reviewers and program staff in dealing effectively with proposals. Therefore, the Project Description may not exceed 15 pages. Tables and visual materials, including charts, graphs, maps, photographs, and other pictorial presentations, are included in the 15-page limitation; literature citations are not included in the 15-page limitation. Conformance to the 15-page limitation will be strictly enforced. All information needed for review of the proposal should be included in the main text; no appendices are permitted. The project description should include:

Introduction/Background/Justification: Subjects that the investigator(s) may wish to include in this section are: 1) current state of knowledge; 2) contributions that the study will make to the particular discipline or subject area; and 3) contributions that the study will make toward addressing the problems of oyster disease issues.

Research or Technical Plan: 1) Objectives to be achieved, hypotheses to be tested; 2) Experimental design and statistical analysis to be used; 3) Plan of work, discuss how stated project objectives will be achieved; and 4) Role of project personnel.

Output: Describe the project outputs that will enhance the Nation's ability to improve the status of oysters and the oyster industry.

Coordination with other Program Elements: Describe any coordination with other agency

programs or ongoing research efforts. Describe any other proposals that are essential to the success of this proposal.

References and Literature Citations: Should be included, but will not be counted in the 15-page project description limit.

d. Budget and Budget Justification: There should be a separate budget for each year of the project as well as a cumulative annual budget for the entire period of the proposed project. Subcontracts, if any, should have a separate budget page. Matching funds equivalent to 50 percent of the NSGO funds must be indicated; failure to provide adequate matching funds will result in the proposal being rejected without review. Each annual budget should include a separate budget justification page that itemizes all budget items in sufficient detail to enable reviewers to evaluate the appropriateness of the funding requested. Please pay special attention to any travel, supply or equipment budgets and provide details. For proposals to either of the competition categories the total dollar amount of indirect costs must not exceed the indirect cost rate negotiated and approved by the cognizant Federal agency prior to the proposed effective date of the award or 100 percent of the total proposed direct costs dollar amount in the application, whichever is less.

e. Current and Pending Support: Applicants must provide information on all current and pending Federal support for ongoing projects and proposals, including subsequent funding in the case of continuing grants. The number of person-months per year to be devoted to the projects must be stated, regardless of source of support. Similar information must be provided for all proposals already submitted or submitted concurrently to other possible Federal sponsors, including those within NOAA.

f. Vitae (2-page maximum per investigator)

g. Standard Application Forms: Forms can be obtained from state Sea Grant programs or the National Sea Grant Office. The following forms must be submitted:

(1) Standard Forms 424 (Rev 07/03), Application for Federal Assistance, 424A, Budget Information - Non-Construction Programs; and 424B, Assurances - Non-Construction Programs, (Rev 07/97). Applications should clearly identify the program area being addressed by starting the project title Oyster Disease Research Program, as appropriate. Please note that both the Principal Investigator and an administrative contact should be identified in Section 5 of the SF424. For Section 10, applicants for Oyster Disease Research Program areas should enter A11.417 for the CFDA Number and NOAA Sea Grant Support for the title. The form must contain the original signature of an authorized representative of the applying institution.

(2) Primary Applicant Certifications. All primary applicants must submit a completed Form CD-511, "Certifications Regarding Debarment, Suspension and Other Responsibility Matters; Drug-Free Workplace Requirements and Lobbying," and the following explanations are hereby provided:

(i) Nonprocurement Debarment and Suspension. Prospective participants (as defined at 15 CFR Part 26, Section 105) are subject to 15 CFR Part 26, "Nonprocurement Debarment and Suspension" and the related section of the certification form prescribed above applies;

(ii) Drug-Free Workplace. Grantees (as defined at 15 CFR Part 26, Section 605) are subject to 15 CFR Part 26, Subpart F, "Government wide Requirements for Drug-Free Workplace (Grants)" and the related section of the certification form prescribed above applies;

(iii) Anti-Lobbying. Persons (as defined at 15 CFR Part 28, Section 105) are subject to the lobbying provisions of 31 U.S.C. 1352, "Limitation on use of appropriated funds to influence certain Federal contracting and financial transactions," and the lobbying section of the certification form prescribed above applies to applications/bids for grants, cooperative agreements, and contracts for more than \$100,000, and loans and loan guarantees for more than \$150,000, or the single family maximum mortgage limit for affected programs, whichever is greater; and

(iv) Anti-Lobbying Disclosures. Any applicant that has paid or will pay for lobbying using any

funds must submit an SF-LLL, "Disclosure of Lobbying Activities," as required under 15 CFR Part 28, Appendix B.

(3) Lower Tier Certifications. Recipients shall require applicants/bidders for subgrants, contracts, subcontracts, or other lower tier covered transactions at any tier under the award to submit, if applicable, a completed Form CD-512, "Certifications Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions and Lobbying" and disclosure form, SF-LLL, "Disclosure of Lobbying Activities." Form CD-512 is intended for the use of recipients and should not be transmitted to the Department of Commerce (DOC). SF-LLL submitted by any tier recipient or subrecipient should be submitted to DOC in accordance with the instructions contained in the award document.

### **C. Submission Dates and Times**

Applications must be received by 4 p.m. (local time) on August 27, 2004 for preliminary proposals and by 4 p.m. (local time) November 16, 2004 for full proposals by a state Sea Grant Program [or by the National Sea Grant Office (NSGO) in the case of an applicant in a non-Sea Grant state]. Applications are to be forwarded to the NSGO by the state Sea Grant Programs and received by 4 p.m. EST on September 2, 2004 for preliminary proposals and by 4 p.m. EST on November 23, 2004 for full proposals.

Applications will be stamped with the date received at the state Sea Grant Program or the NSGO. Applications arriving after the above deadlines will be accepted for review only if the applicant can document that the application was provided to a delivery service that guaranteed delivery prior to the specified closing date and time. In any event, applications received by the NSGO or the state Sea Grant Programs later than two business days following the closing date will not be accepted.

### **D. Intergovernmental Review**

Applications under this program are not subject to Executive Order 12372, "Intergovernmental Review of Federal Programs."

### **E. Funding Restrictions**

No special restrictions apply.

### **F. Other Submission Requirements**

Prospective applicants living in Sea Grant States should submit their preliminary and full proposals to the state Sea Grant Programs (see "Address to Request Application Package"). Applications from elsewhere may be submitted either to the nearest state Sea Grant Program or directly to the NSGO. Applications submitted to the NSGO should be addressed to: National Sea Grant Office, Attn: Mrs. Geraldine Taylor, SG-Oyster Disease Research Program, 1315 East-West Highway, R/SG, Rm. 11732, Silver Spring, MD 20910 (telephone number for express mail applications is 301-713-2445). All applications must be hard copy only. Facsimile transmissions and electronic mail submission of applications will not be accepted. The hard copies may be submitted by postal mail, commercial delivery service, or hand-delivery.

### **V. Application Review Information**

## **A. Evaluation Criteria**

The evaluation criteria and weighting of the criteria for both preliminary proposals and full proposals are as follows:

1. Importance and/or relevance and applicability of proposed project to the program goals (40 percent). Assesses whether there is intrinsic value in the proposed work and or relevance to NOAA, federal, regional, state, or local activities. This includes the degree to which the activity, if successful, will advance the state of the science, industry, or state-of-the-art field methods.
2. Technical/scientific merit (40 percent). Evaluates whether the approach is technically sound and/or innovative, if the methods are appropriate, and whether there are clear project goals and objectives.
3. Overall qualifications of Investigators (5 percent). Ascertains whether the applicant possesses the necessary education, experience, training, facilities, and administrative resources to accomplish the project.
4. Project costs (5 percent). Evaluates the budget to determine if it is realistic and commensurate with the project needs and time frame. This includes the degree to which inter-institutional and multi-disciplinary programs have been developed in order to leverage funds and resources.
5. Outreach and education (10 percent). Assesses whether the project provides a focused and effective education and outreach strategy regarding NOAA's mission to protect the Nation's natural resources. This includes the degree to which the potential users of the results, i.e., industry or state resource managers, have been involved in the planning of the activity, will be involved in the execution of the activity and/or are providing funds, and whether there is a plan to disseminate the results to user groups and the public.

## **B. Review and Selection Process**

An initial administrative review is conducted at both the preliminary and full proposal stages to determine compliance with requirements and completeness of the application. Preliminary proposals will be ranked in accordance with the above criteria and their assigned weights by an independent review panel consisting of government, academic, and industry representatives. Panel members will provide individual evaluations of each proposal, and their ratings will be used to produce a rank order of the proposals. The Sea Grant Program Managers will consider these evaluations in determining which applicants will be asked to submit full proposals. The review panel will provide no consensus advice to Sea Grant Program Managers.

Full proposals submitted to the state Sea Grant Programs or the NSGO will be sent to peer reviewers for written reviews. Reviewers will be asked to evaluate the proposals using the evaluation criteria listed in this announcement. A peer review panel consisting of government, academic, and industry representatives will evaluate full proposals and accompanying written reviews in accordance with the above criteria and their assigned weights. Panel members will provide individual evaluations of each proposal, and their ratings will be used to produce a rank order of the proposals. The Sea Grant Program Managers will consider these evaluations for final project selection. The review panel will provide no consensus advice to Sea Grant Program Managers.

## **C. Selection Factors**



The Sea Grant Program Managers will make the final project selection. The selecting official shall award in the rank order unless the proposal is justified to be selected out of rank order based on any of the following factors:

1. Availability of funds;
2. Balance/distribution of funds;
  - a. Geographically;
  - b. By type of institutions;
  - c. By type of partners;
  - d. By research areas;
  - e. By project types;
3. Duplication of other projects funded or considered for funding by NOAA/federal agencies;
4. Program Priorities and policy factors;
5. Applicant's prior award performance;
6. Partnerships with/Participation of targeted groups.

For selection factor 4 see Paragraph I.B. above.

Investigators may be asked to modify objectives, work plans, or budgets prior to approval of the award. Subsequent administrative processing will be in accordance with current NOAA grants procedures. Applications must reflect the total budget necessary to accomplish the project. The appropriateness of all cost-sharing will be determined on the basis of guidance provided in applicable Federal cost principles. The applicants will be bound by the percentage of cost sharing reflected in the grant award.

#### **D. Anticipated Announcement and Award Dates**

Recommendations on preliminary proposals are expected to be made by October 1, 2004 and on full proposals by February 18, 2005. Subject to the availability of funds, awards are expected to be made by June 1, 2005, the start date that should be used on the Application for Federal Assistance (Form 424) for successful applications.

### **VI. Award Administration Information**

#### **A. Award Notices**

The notice of award is signed by the NOAA Grants Officer and is the authorizing document. It is provided by postal mail to the appropriate business office of the recipient organization.

The National Sea Grant Office will notify each unsuccessful applicant by informing the state Sea Grant Program through which the application was submitted in writing, via e-mail, and by providing a written summary, via e-mail, of the comments given by the review panel. The state Sea Grant Programs will, in turn, formally notify each unsuccessful applicant and forward the summary comments provided by the NSGO. Those proposals that are not ultimately selected for funding will be destroyed.

#### **B. Administrative and National Policy Requirements**

Department of Commerce Requirements. The Department of Commerce Pre-Award Notification of Requirements for Grants and Cooperative Agreements contained in the Federal

Register notice of October 1, 2001 (66 FR 49917), as amended by the Federal Register notice published on October 30, 2002 (67 FR 66109) is applicable to this solicitation.

Limitation of Liability. In no event will NOAA or the Department of Commerce be responsible for proposal preparation costs if these programs are cancelled because of other agency priorities. Publication of this announcement does not oblige NOAA to award any specific project.

National Environmental Policy Act (NEPA). NOAA must analyze the potential environmental impacts, as required by the National Environmental Policy Act (NEPA), for applicant projects or proposals which are seeking NOAA federal assistance opportunities including special fishing privileges. Detailed information on NOAA compliance with NEPA can be found at the following NOAA NEPA website: <http://www.nepa.noaa.gov/> including our NOAA Administrative Order 216-6 for NEPA, [http://www.nepa.noaa.gov/NAO216\\_6\\_TOC.pdf](http://www.nepa.noaa.gov/NAO216_6_TOC.pdf) and the Council on Environmental Quality implementation regulations, [http://ceq.eh.doe.gov/nepa/regs/ceq/toc\\_ceq.htm](http://ceq.eh.doe.gov/nepa/regs/ceq/toc_ceq.htm)

Consequently, as part of an applicant's package, and under their description of their program activities, applicants are required to provide detailed information on the activities to be conducted, locations, sites, species and habitat to be affected, possible construction activities, and any environmental concerns that may exist (e.g., the use and disposal of hazardous or toxic chemicals, introduction of non-indigenous species, impacts to endangered and threatened species, aquaculture projects, and impacts to coral reef systems). In addition to providing specific information that will serve as the basis for any required impact analyses, applicants may also be requested to assist NOAA in drafting of an environmental assessment, if NOAA determines an assessment is required. Applicants will also be required to cooperate with NOAA in identifying and implementing feasible measures to reduce or avoid any identified adverse environmental impacts of their proposal. The failure to do so shall be grounds for the denial of an application.

### **C. Reporting**

All financial and progress reports shall be submitted in triplicate (one original and two copies). Financial reports are to be submitted to the NOAA Grants Officer and Performance (technical) reports are to be submitted to the NOAA program officer. Financial reports are semi-annual and Performance reports are annual.

### **VII. Agency Contact(s)**

Contact Dr. James P. McVey, National Sea Grant College Program, 1315 East-West Highway, R/SG, Rm. 11838, Silver Spring, MD 20910; tel: (301) 713-2451; e-mail: [jim.mcvey@noaa.gov](mailto:jim.mcvey@noaa.gov)