

December 20, 2011

**ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY (FFO)  
National Institute of Standards and Technology (NIST) Research Experience for Teachers  
(NIST RET) Program**

**EXECUTIVE SUMMARY**

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)
- **Funding Opportunity Title:** NIST Research Experience for Teachers (NIST RET) Program
- **Announcement Type:** Initial
- **Funding Opportunity Number:** 2012-NIST-RET-01
- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.609, Measurement and Engineering Research and Standards
- **Dates:** All applications, paper and electronic, must be received no later than 3:00 p.m. Eastern Time on Wednesday, March 21, 2012. Applications received after this deadline will not be reviewed or considered. Review, selection, and award processing is expected to be completed in April 2012. The earliest anticipated start date for awards under this FFO is expected to be June 1, 2012. The selected teachers will be required to attend the NIST RET Program during the summer of 2012 for six (6) continuous weeks (exact dates to be decided by the teachers and NIST scientists).
- **Proposal Submission Address:**
  - Paper Submission: Dr. Mary Satterfield  
National Institute of Standards and Technology  
Biochemical Science Division  
100 Bureau Drive, Stop 8310  
Gaithersburg, MD 20899-8310  
  
Phone: 301-975-5364
  - Electronic (E-mail) Submission: [ret@nist.gov](mailto:ret@nist.gov)
- **Funding Opportunity Description:** NIST is soliciting applications from eligible public school districts and accredited private educational institutions located in the U.S. and its territories nominating middle school science teachers, who have successfully completed the NIST Summer Institute for Middle School Science Teachers (NIST Summer Institute) Program, to participate in the NIST RET Program. The NIST RET Program will allow the selected teachers to participate in scientific research with NIST scientists and engineers at the NIST Campus in Gaithersburg, Maryland.

- **Total Amount to be Awarded:** Approximately \$24,000 for new awards.
- **Anticipated Amounts:** NIST anticipates funding individual awards to public school districts and/or accredited private educational institutions located in the U.S. and/or its territories to support approximately three (3) teachers at no more than \$8,000 per teacher. The total number of awards will depend on the number of teachers selected per selected applicant to attend the NIST RET Program.
- **Funding Instrument:** Cooperative Agreement
- **Who Is Eligible:** Public school districts and accredited private educational institutions located in the U.S. and its territories that offer science classes at the middle school level (Grades 6-8), and whose nominated teachers have successfully completed the NIST Summer Institute Program. Such school districts and institutions must offer instruction in general science fields, such as earth science, physical science, chemistry, physics, and/or biology. Public middle schools and teachers are not eligible to submit applications directly to NIST. Each applicant public school district and accredited private educational institution located in the U.S. and its territories is limited to nominating no more than one (1) teacher per middle school in its school district or institution for participation in the NIST RET Program. For example, if there are 20 middle schools within a school district, the school district may nominate up to 20 teachers, which is one (1) teacher per middle school. The individual teachers that are nominated to participate in the NIST RET Program must meet the eligibility requirements in Section III.1. of this FFO.
- **Cost Sharing Requirements:** This Program does not require cost sharing.

## **FULL ANNOUNCEMENT TEXT**

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

NIST is soliciting applications from eligible public school districts and accredited private educational institutions located in the U.S. and its territories that offer science classes at the middle school level (Grades 6-8). Such school districts and institutions must offer instruction in general science fields, such as earth science, physical science, chemistry, physics, and/or biology. NIST may award funding that will support the attendance of middle school science teachers in the NIST RET Program for six (6) continuous weeks during the summer of 2012 (exact dates to be decided by the teachers and NIST scientists), at the NIST Campus in Gaithersburg, Maryland.

The NIST RET Program will enable three (3) qualified middle school science teachers to take advantage of resources from the nation's premier standards and measurement laboratory, NIST. The aim is to provide teachers who have successfully completed the NIST Summer Institute Program an opportunity to further their understanding of how scientific research is performed by participating in research at NIST for six (6) continuous weeks. Selected teachers will work side-by-side with NIST research scientists on projects that combine research with direct applications tailored to developing, maintaining, advancing, and enabling the measurement system for the nation. The research projects in which the teachers engage will be selected to be highly relevant to the teachers' interests and the NIST mission. For more information see <http://www.nist.gov/iaao/teachlearn/>.

The statutory authorities for this Program are 15 U.S.C. § 272(b)(4) and 15 U.S.C. § 278g-2a.

## **II. Award Information**

### **1. Funding Instrument**

The funding instrument that will be used is a cooperative agreement. The nature of NIST's "substantial involvement" will generally be collaboration with the recipients in the scope of work and working jointly with and training the teachers. Additional forms of substantial involvement that may arise are described in the DoC Grants and Cooperative Agreements Interim Manual, which is available at

[http://www.osec.doc.gov/oam/grants\\_management/policy/doc\\_grants\\_manual/default.htm](http://www.osec.doc.gov/oam/grants_management/policy/doc_grants_manual/default.htm).

### **2. Funding Availability**

NIST plans that a total of \$24,000 may be made available in FY 2012 to support a total of three (3) teachers to attend the NIST RET Program. The actual number of awards will depend on the number of teachers selected to attend the NIST RET Program from each successful applicant public school district and/or accredited private educational institution located in the U.S. and/or its territories. The selected teachers will be required to attend the NIST RET Program during the summer of 2012 for six (6) continuous weeks (exact dates to be decided by the teachers and NIST scientists), at NIST in Gaithersburg, Maryland.

Each teacher selected from each successful applicant will receive \$8,000 as a stipend for six (6) continuous full weeks through their school district or private educational institution. Neither housing nor travel allowances are provided to the teachers.

## **III. Eligibility Information**

### **1. Eligible Applicants**

Public school districts and accredited private educational institutions located in the U.S. and its territories that offer science classes at the middle school level (Grades 6-8), and whose nominated teachers have successfully completed the NIST Summer Institute Program. Such school districts and institutions must offer instruction in general science fields, such as earth science, physical science, chemistry, physics, and/or biology.

Public middle schools and teachers **are not eligible** to submit applications directly to NIST.

Each applicant public school district and accredited private educational institution located in the U.S. and its territories is limited to nominating no more than one (1) teacher per middle school in its school district or institution for participation in the NIST RET Program. For example, if there are 20 middle schools within a school district, the school district may nominate up to 20 teachers, which is one (1) teacher per middle school. Multiple teacher nominations from the same middle school will result in all nominations from that school being rejected by NIST.

Each individual teacher nominated to participate in the NIST RET Program from the applicant public school districts and/or accredited private educational institutions located in the U.S.

and/or its territories must meet all of the following eligibility requirements at the time of application and at the time of award:

- a. Be a U.S. citizen or permanent U.S. resident.
- b. Commit to six (6) full continuous weeks (Monday through Friday) from 8:30 a.m. to 5:00 p.m., during the summer of 2012, to participate in the NIST RET Program, at the NIST Campus in Gaithersburg, Maryland.
- c. Be employed for the 2012-2013 school year to teach middle school (Grades 6-8) science in a public school district and/or accredited private educational institution located in the U.S. and/or its territories. The topics taught must include science and related fields, such as earth science, physical science, chemistry, physics, and/or biology.
- d. Previously successfully completed the NIST Summer Institute.

Applicants are encouraged, but are not required, to nominate eligible teachers from a “high-need school” as defined in 20 U.S.C. § 1021(11), which is reproduced in relevant part below:

20 U.S.C. § 1021:

“(11) High-need school.—

(A) In general.--The term ‘high-need school’ means a school that, based on the most recent data available, meets one or both of the following:

- (i) The school is in the highest quartile of schools in a ranking of all schools served by a local educational agency, ranked in descending order by percentage of students from low-income families enrolled in such schools, as determined by the local educational agency based on one of the following measures of poverty:
  - (I) The percentage of students aged 5 through 17 in poverty counted in the most recent census data approved by the Secretary.
  - (II) The percentage of students eligible for a free or reduced price school lunch under the Richard B. Russell National School Lunch Act.
  - (III) The percentage of students in families receiving assistance under the State program funded under part A of title IV of the Social Security Act.
  - (IV) The percentage of students eligible to receive medical assistance under the Medicaid program.
  - (V) A composite of two or more of the measures described in subclauses (I) through (IV).
- (ii) In the case of--
  - (I) an elementary school, the school serves students not less than 60 percent of whom are eligible for a free or reduced price school lunch under the Richard B. Russell National School Lunch Act; or
  - (II) any other school that is not an elementary school, the other school serves students not less than 45 percent of whom are eligible for a

free or reduced price school lunch under the Richard B. Russell National School Lunch Act.”

## **2. Cost Sharing or Matching**

The NIST RET Program does not require cost sharing.

## **3. Other**

- a. Limit on Nominated Teachers.** Each applicant public school district and accredited private educational institution located in the U.S. and its territories is limited to nominating no more than one (1) teacher per middle school in its school district or institution for participation in the NIST RET Program. For example, if there are 20 middle schools within a school district, the school district may nominate up to 20 teachers, which is one (1) teacher per middle school.
- b. Pre-Applications.** NIST is not accepting pre-applications or white papers under the NIST RET Program.

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

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

The full application package, consisting of all of the required forms is available at <http://www.nist.gov/iaao/teachlearn/>. The full application package may also be requested by contacting:

Dr. Mary Satterfield  
National Institute of Standards and Technology  
Biochemical Science Division  
100 Bureau Drive, Stop 8310  
Gaithersburg, MD 20899-8310

Phone: 301-975-5364

### **2. Content and Format of Application Submission**

#### **a. Required Forms and Documents**

- (1) SF-424, Application for Federal Assistance. The SF-424 must be signed by an authorized representative of the applicant organization. The FFO number 2012-NIST-RET-01 must be identified in item 12 of the SF-424. The list of certifications and assurances referenced in item 21 of the SF-424 is contained in the SF-424B.
- (2) SF-424A, Budget Information – Non-Construction Programs
- (3) SF-424B, Assurances – Non-Construction Programs
- (4) SF-LLL, Disclosure of Lobbying Activities (if applicable)
- (5) CD-511, Certification Regarding Lobbying
- (6) Additional Applicant Information. This is a word-processed document written by the applying public school district and/or accredited private educational institution located in the U.S. and/or its territories and must contain the following information:

- (a) Description of the applicant's education programs that make it eligible to submit a NIST RET Program application. Specifically, offering science classes at the middle school level (Grades 6-8). Such school districts and institutions must offer instruction in general science fields, such as earth science, physical science, chemistry, physics, and/or biology.
- (b) Summary list of the teacher(s) being nominated and certification that:
  - i. Each nominated teacher will have teaching responsibilities in science and related fields at the middle school level (Grades 6-8) in the 2012-2013 school year. (Applicants must certify to the best current knowledge/plans of the public school district and/or accredited private educational institution located in the U.S. and/or its territories at the time of application submission.);
  - ii. Each nominated teacher is a U.S. citizen or permanent U.S. resident; and
  - iii. The nominated teacher is from a "high-need school" as defined in 20 U.S.C. § 1021(11) (see *also* Section III.1. of this FFO) (if applicable).
- (c) Address the evaluation criterion of the Applicant's Commitment to Program Goals: The applicant's support of the teacher's intent to use what was learned at NIST as related to the middle school curriculum in the classroom (see Section V.1.b. of this FFO).

(7) NIST-1103, Teacher Application for the NIST Summer Institute for Middle School Science Teachers (NIST Summer Institute) or the NIST Research Experience for Teachers (NIST RET)

All of the required application documents should be submitted in the order listed above.

**IMPORTANT:** All of the required application documents listed above may only be submitted by a school district or accredited private educational institution located in the U.S. and/or its territories. Submission of separate NIST-1103s without all of the required application documents is not permitted and, if received by NIST, will be returned without review.

Teachers interested in the NIST RET Program should contact their middle schools directly to express their interest. Public middle schools interested in the NIST RET Program should contact their school district early on to work closely in the preparation of the application, which may only be submitted to NIST by their school district. Private educational institutions should prepare their applications for direct submission to NIST.

**b. Application Format**

- (1) **Application language.** English.
- (2) **Double-sided copy.** For paper submissions, print on both sides of the paper (front to back counts as two pages).
- (3) **Facsimile submissions (fax).** Will not be accepted.

- (4) **Font.** Easy to read font (10-point minimum). Smaller type may be used in figures and tables but must be clearly legible.
- (5) **Line spacing.** Single.
- (6) **Margins.** One (1) inch top, bottom, left, and right.
- (7) **Number of paper copies.** For paper submissions, one (1) signed, stapled original and two (2) stapled copies. If original application is in color, the two (2) copies must also be in color. If submitting by electronically by e-mail, paper copies are not required.
- (8) **Page layout.** Portrait orientation only.
- (9) **Page limit.** Five (5) pages for Additional Applicant Information.

**Page limit excludes:** The following forms, including required attachments, are not included in the page limit: SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs; SF-424B, Assurances – Non-Construction Programs; SF-LLL, Disclosure of Lobbying Activities; CD-511, Certification Regarding Lobbying; and NIST-1103, Teacher Application for the NIST Summer Institute for Middle School Science Teachers (NIST Summer Institute) or the NIST Research Experience for Teachers (NIST RET).

- (10) **Page numbering.** Number pages sequentially.
- (11) **Paper size.** 21.6 by 27.9 centimeters (8 ½ by 11 inches).
- (12) **Stapled paper submission.** For paper submissions, staple the original signed application and each of the two (2) copies securely with one staple in the upper left-hand corner.
- (13) **Table of contents.** Do not include; not required. If included, will count toward page limit.
- (14) **Typed document.** All applications, including forms, must be typed.

### 3. Submission Dates and Times

Applications must be received by NIST no later than 3:00 p.m. Eastern Time on Wednesday, March 21, 2012. This deadline applies to all modes of application submission, including courier services, express mailing, and electronic.

Applications not received by the specified due date and time will not be considered and will be returned without review. NIST determines whether the applications submitted by mail have been timely received by the deadline by date and time receipt they are physically received by NIST at its Gaithersburg, Maryland campus. For electronic submissions, NIST will consider the date and time of the e-mail.

NIST strongly recommends that applicants do not wait until the last minute to submit an application. NIST will not make any allowances for late submissions, including but not limited to Internet delays or unavailability, delays in mail delivery caused by Federal Government security screening for U.S. Postal Service mail, or for delays by guaranteed express mailing and/or couriers.

*Important: All applicants, both electronic and paper submitters, should be aware that adequate time must be factored into applicants' schedules for delivery of their application. Submitters of electronic applications are advised that if their application cannot be submitted electronically in a timely fashion, they are encouraged to exercise their option to submit applications in paper format. Submitters of paper applications should allow adequate time to ensure a paper application will be received on time, taking into account that Federal Government security screening for U.S. Postal Service mail may delay receipt of mail for up to two (2) weeks and that guaranteed express mailing and/or couriers are not always able to fulfill their guarantees.*

In the event of a natural disaster that interferes with timely application submissions, NIST may issue an amendment to this FFO to change the application submission due date.

#### **4. Executive Order 12372 (Intergovernmental Review of Federal Programs)**

Applications under this Program are not subject to Executive Order 12372.

#### **5. Funding Restrictions**

The NIST RET Program will not authorize funds for housing nor travel allowances. Additionally, the award for teachers to attend the NIST RET Program does not allow for any indirect costs. Although NIST awards will be made directly to school districts and/or institutions, NIST's intent is that all funding awarded be provided to the selected teachers as stipends.

#### **6. Other Submission Requirements**

a. Applications may be submitted by paper or electronically by e-mail.

(1) Paper applications must be submitted in triplicate (an original and two copies) and sent to:

Dr. Mary Satterfield  
National Institute of Standards and Technology  
Biochemical Science Division  
100 Bureau Drive, Stop 8310  
Gaithersburg, MD 20899-8310

Phone: 301-975-5364

(2) Electronic applications must be submitted by e-mail to [ret@nist.gov](mailto:ret@nist.gov).

Submitters of e-mail applications should make sure to include all attachments in one e-mail as a single PDF attachment.



Refer to important information in section IV.3. Submission Dates and Times to help ensure your application is received on time.

- b. Any amendments to this FFO will be announced and posted on the NIST Web site (<http://www.nist.gov/iaao/teachlearn/>) or alternatively, interested parties may call Dr. Mary Satterfield at (301) 975-5364, to request copies.

## **V. Application Review Information**

### **1. Evaluation Criteria**

The evaluation criteria that will be used in evaluating applications are as follows:

- a. Evaluation of Teacher's Interest in Participating in the Program as demonstrated in their respective NIST-1103, Teacher Application for the NIST Summer Institute for Middle School Science Teachers (NIST Summer Institute) or the NIST Research Experience for Teachers (NIST RET): Teachers should consider and describe how participation in the NIST RET Program would further their own career goals, as well as the program goal of encouraging students to pursue careers in science and related fields, and demonstrate the teacher's commitment to full participation in the NIST RET Program including work in a laboratory environment during the NIST RET Program. As part of this section, teachers should also demonstrate their interest in and ideas for translating scientific research into activities for use in the middle school classroom.
- b. Applicant's Commitment to Program Goals: The applicant's support of the teacher's intent to use what was learned at NIST as related to the middle school curriculum in the classroom.

Each of these factors is given equal weight in the evaluation process.

### **2. Selection Factors**

The Selecting Official shall select applications for award based upon the rank order of the applications, and may select an application out of rank based on one or more of the following selection factors:

- a. Fit of the teacher's stated interest to the program priorities of NIST (see section V.3. Program Priorities);
- b. Fit of the teacher's interests and abilities to the available project and/or NIST scientists;
- c. Preference may be given to teachers from "high-need schools," as defined in 20 U.S.C. § 1021(11) (see Section 406 of the America COMPETES Reauthorization Act of 2010 (Pub. L. 111-358; 121 Stat. 4004); and
- d. The availability of Federal funds.

### **3. Program Priorities**

All applicable fields of science that complement those of NIST; specifically, these include

science related to measurements. More information about those programs can be found on the agency's Web site ([www.nist.gov](http://www.nist.gov)).

#### **4. Review and Selection Process**

- a. Initial Administrative Review of Applications.** An initial administrative review of timely received applications will be conducted to determine applicant and teacher eligibility, completeness, and responsiveness to this FFO and the scope of the stated program objectives. Applications determined to be ineligible, incomplete, and/or non-responsive based on this FFO may be eliminated from further review.
- b. Full Review of Eligible, Complete, and Responsive Applications.** Applications determined to be eligible, complete, and responsive will be separated into teacher/applicant packets and proceed for full reviews in accordance with the review and selection process below:
  - (1) Each NIST RET Program teacher/applicant packet will be reviewed by at least three (3) independent, objective NIST scientists who are knowledgeable in the subject matter of this FFO and its objectives and who are able to conduct a review based on the evaluation criteria (see Section V.1. of this FFO). Based on the average of the reviewers' scores, a rank order of the teacher/applicant packets will be prepared and provided to the Selecting Official for further consideration.
  - (2) In making final selections, the Selecting Official, who is the Biochemical Science Division Scientific Advisor at NIST, will select funding recipients based upon the rank order of the teacher/applicant packets and the selection factors (see Section V.2. of this FFO).

NIST reserves the right to negotiate the budget costs with the applicants that have been selected to receive awards, which may include requesting that the applicant remove certain costs. Additionally, NIST may request that the applicant modify objectives or work plans and provide supplemental information required by the agency prior to award. Substitutions for teachers who decline offers will be made from the remaining pool of ranked teacher/applicant packets consistent with the review and selection process (see Section V.4. of this FFO). NIST also reserves the right to reject an application where information is uncovered that raises a reasonable doubt as to the responsibility of the applicant. NIST may select part, some, all, or none of the applications. The final approval of selected applications and issuance of awards will be by the NIST Grants Officer. The award decisions of the NIST Grants Officer are final.

#### **5. Anticipated Announcement and Award Date**

Review, selection, and award processing is expected to be completed in April 2012. The earliest anticipated start date for awards made under this FFO is expected to be June 1, 2012.

#### **6. Additional Information**

- a. Safety.** Safety is a top priority at NIST. Teachers participating in the NIST RET Program will be expected to be safety-conscious, to attend NIST safety training, and to comply with all NIST safety policies and procedures, and with all applicable NIST visitor policies.
- b. Application Replacement Pages.** Applicants may not submit replacement pages and/or

missing documents once an application has been submitted. Any revisions must be made by submission of a new application that must be received by NIST by the submission deadline.

- c. **Notification to Unsuccessful Applicants.** Unsuccessful applicants will be notified in writing.
- d. **Retention of Unsuccessful Applications.** One (1) of each non-selected application will be retained for three (3) years for record keeping purposes and the other two (2) copies will be destroyed. After three (3) years, the remaining copy will be destroyed.

## **VI. Award Administration Information**

- 1. **Award Notices.** Successful applicants will receive an award from the NIST Grants Officer. The award cover page, i.e., CD-450, Financial Assistance Award is available at <http://ocio.os.doc.gov/s/groups/public/@doc/@os/@ocio/@oitpp/documents/content/dev01002513.pdf> and the DoC Financial Assistance Standard Terms and Conditions (March 2008), which may be updated by the time of award, are available at <http://www.osec.doc.gov/oam/archive/docs/GRANTS/DOC%20STCsMAR08Rev.pdf>.
- 2. **Administrative and National Policy Requirements**
  - a. **DoC Pre-Award Notification Requirements.** The DoC Pre-Award Notification Requirements for Grants and Cooperative Agreements, which are contained in the *Federal Register* notice of February 11, 2008 (73 FR 7696), are applicable to this FFO and are available at [http://www2.ntia.doc.gov/files/DOC\\_pre-award\\_notification\\_requirements\\_73\\_FR\\_7696.pdf](http://www2.ntia.doc.gov/files/DOC_pre-award_notification_requirements_73_FR_7696.pdf).
  - b. **Employer/Taxpayer Identification Number (EIN/TIN), Dun and Bradstreet Data Universal Numbering System (DUNS), and Central Contractor Registration (CCR).** All applicants for Federal financial assistance are required to obtain a universal identifier in the form of DUNS number and maintain a current registration in the CCR database. On the form SF-424 items 8.b. and 8.c., the applicant's 9-digit EIN/TIN and 9-digit DUNS number must be consistent with the information in CCR ([www.ccr.gov](http://www.ccr.gov)) and Automated Standard Application for Payment System (ASAP). For complex organizations with multiple EIN/TIN and DUNS numbers, the EIN/TIN and DUNS numbers MUST be the numbers for the applying organization. Organizations that provide incorrect/inconsistent EIN/TIN and DUNS numbers may experience significant delays in receiving funds if their application is selected for funding. Confirm that the EIN/TIN and DUNS number are consistent with the information on the CCR and ASAP.

Per the requirements of 2 C.F.R. Part 25, each applicant must:

- (1) Be registered in the CCR before submitting an application;
- (2) Maintain an active CCR registration with current information at all times during which it has an active Federal award or an application under consideration by an agency; and
- (3) Provide its DUNS number in each application it submits to the agency.

See also the *Federal Register* notice published on September 14, 2010, at 75 FR 55671.

- c. **Use of NIST Intellectual Property.** If the applicant anticipates using any NIST-owned

intellectual property to carry out the work proposed, the applicant should identify such intellectual property. This information will be used to ensure that no NIST employee involved in the development of the intellectual property will participate in the review process for that competition. In addition, if the applicant intends to use NIST-owned intellectual property, the applicant must comply with all statutes and regulations governing the licensing of Federal government patents and inventions, described in 35 U.S.C. §§ 200-212, 37 C.F.R. Part 401, 15 C.F.R. § 14.36, and in Section B.21 of the DoC Pre-Award Notification Requirements, 73 FR 7696 (February 11, 2008). Questions about these requirements may be directed to the Chief Counsel for NIST, 301-975-2803.

Any use of NIST-owned intellectual property by an applicant is at the sole discretion of NIST and will be negotiated on a case-by-case basis if a project is deemed meritorious. The applicant should indicate within the statement of work whether it already has a license to use such intellectual property or whether it intends to seek one.

If any inventions made in whole or in part by a NIST employee arise in the course of an award made pursuant to this FFO, the United States government may retain its ownership rights in any such invention. Licensing or other disposition of NIST's rights in such inventions will be determined solely by NIST, and include the possibility of NIST putting the intellectual property into the public domain.

- d. Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects.** Any application that includes a teacher's participation in research involving human subjects, human tissue/cells, data or recordings involving human subjects must meet the requirements of the Common Rule for the Protection of Human Subjects ("Common Rule"), codified for the Department of Commerce (DoC) at 15 C.F.R. Part 27. In addition, any such application that includes research on these topics must be in compliance with any statutory requirements imposed upon the Department of Health and Human Services (DHHS) and other Federal agencies regarding these topics, all regulatory policies and guidance adopted by DHHS, the Food and Drug Administration, and other Federal agencies on these topics, and all Executive Orders and Presidential statements of policy on these topics.

NIST reserves the right to make an independent determination of whether an applicant's research involves human subjects. If NIST determines that your research project involves human subjects, you will be required to provide additional information for review and approval. If an award is issued, no research activities involving human subjects shall be initiated or costs incurred under the award until the NIST Grants Officer issues written approval. Retroactive approvals are not permitted.

NIST will accept applications that include research activities involving human subjects that have been or will be approved by an Institutional Review Board (IRB) currently registered with the Office for Human Research Protections (OHRP) within the DHHS and that will be performed by entities possessing a currently valid Federal wide Assurance (FWA) on file from OHRP that is appropriately linked to the cognizant IRB for the protocol. NIST will not issue a single project assurance (SPA) for any IRB reviewing any human subjects protocol proposed to NIST. Information regarding how to apply for an FWA and register and IRB with OHRP can be found at <http://www.hhs.gov/ohrp/assurances/index.html>.

Generally, NIST does not fund research involving human subjects in foreign countries. NIST will consider, however, the use of **preexisting** tissue, cells, or data from a foreign source on a limited basis if all of the following criteria are satisfied:

- (1) the scientific source is considered unique,
- (2) an equivalent source is unavailable within the United States,
- (3) an alternative approach is not scientifically of equivalent merit, and
- (4) the specific use qualifies for an exemption under the Common Rule.

Any award issued by NIST is required to adhere to all Presidential policies, statutes, guidelines and regulations regarding the use of human embryonic stem cells. The DoC follows the NIH Guidelines by supporting and conducting research using only human embryonic stem cell lines that have been approved by NIH in accordance with the NIH Guidelines. Detailed information regarding NIH Guidelines for stem cells is located on the NIH Stem Cell Information website: <http://stemcells.nih.gov>. The DoC will not support or conduct any type of research that the NIH Guidelines prohibit NIH from funding. The DoC will review research using human embryonic stem cell lines that it supports and conducts in accordance with the Common Rule and NIST implementing procedures, as appropriate.

Any request to support or conduct research using human embryonic stem cell lines not currently approved by the NIH, will require that the owner, deriver or licensee of the human embryonic stem cell line apply for and receive approval of the registration of the cell line through the established NIH application procedures:

[http://hescregapp.od.nih.gov/NIH\\_Form\\_2890\\_Login.htm](http://hescregapp.od.nih.gov/NIH_Form_2890_Login.htm). Due to the timing uncertainty associated with establishing an embryonic stem cell line in the NIH registry, the use of existing human embryonic stem cell lines in the NIH Embryonic Stem Cell Registry may be preferred by applicants or current award recipients. The NIH Embryonic Stem Cell Registry is located at: [http://grants.nih.gov/stem\\_cells/registry/current.htm](http://grants.nih.gov/stem_cells/registry/current.htm).

An applicant or current award recipient proposing to use a registered embryonic stem cell line will be required to document an executed agreement for access to the cell line with the provider of the cell line, and acceptance of any established restrictions for use of the cell line, as may be noted in the NIH Embryonic Stem Cell Registry.

If the applicant's proposal includes exempt and/or non-exempt research activities involving human subjects the following information is required in the proposal:

- (1) The name(s) of the institution(s) where the research will be conducted;
- (2) The name(s) and institution(s) of the cognizant IRB(s), and the IRB registration number(s);
- (3) The FWA number of the applicant linked to the cognizant IRB(s);
- (4) The FWAs associated with all organizations engaged in the planned research activity linked to the cognizant IRB;
- (5) If the IRB review(s) is pending, the estimated start date for research involving human subjects;
- (6) The IRB approval date (if currently approved for exempt or non-exempt research);
- (7) If any FWAs or IRB registrations are being applied for, that should be clearly stated.

Additional documentation may be requested, as warranted, during review of the applicant's proposal, but may include the following for research activities involving human subjects that are planned in the first year of the award:

- (1) A signed (by the study principal investigator) copy of each applicable final IRB-approved protocol;
- (2) A signed and dated approval letter from the cognizant IRB(s) that includes the name of the institution housing each applicable IRB, provides the start and end dates for the approval of the research activities, and any IRB-required interim reporting or continuing review requirements;
- (3) A copy of any IRB-required application information, such as documentation of approval of special clearances (i.e. biohazard, HIPAA, etc.) conflict-of-interest letters, or special training requirements;
- (4) A brief description of what portions of the IRB submitted protocol are specifically included in the applicant's proposal submitted to NIST, if the protocol includes tasks not applicable to the proposal, or if the protocol is supported by multiple funding sources. For protocols with multiple funding sources, NIST will not approve the study without a nonduplication-of-funding letter indicating that no other federal funds will be used to support the tasks proposed under the proposed research or ongoing project;
- (5) If a new protocol will only be submitted to an IRB if an award from NIST issued, a draft of the proposed protocol may be requested.
- (6) Any additional clarifying documentation that NIST may request during review of proposals to perform the NIST administrative review of research involving human subjects.

**e. Research Projects Involving Vertebrate Animals.** Any application that includes a teacher's participation in research involving live vertebrate animals must be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals," which can be obtained from National Academy Press, 500 5<sup>th</sup> Street, N.W., Department 285, Washington, DC 20055. In addition, such applications must meet the requirements of the Animal Welfare Act (7 U.S.C. § 2131 et seq.), 9 C.F.R. Parts 1, 2, and 3, and if appropriate, 21 C.F.R. Part 58. These regulations do not apply to proposed research using **preexisting** images of animals or to research plans that do not include live animals that are being cared for, euthanized, or used by the project participants to accomplish research goals, teaching, or testing. These regulations also do not apply to obtaining animal materials from commercial processors of animal products or to animal cell lines or tissues from tissue banks.

NIST reserves the right to make an independent determination of whether your research involves live vertebrate animals. If NIST determines that your research project involves live vertebrate animals, you will be required to provide additional information for review and approval. If an award is issued, no research activities involving live vertebrate animals subjects shall be initiated or costs incurred under the award until the NIST Grants Officer issues written approval.

If the applicant's proposal includes research activities involving live vertebrate animals the following information is required in the proposal:

- (1) The name(s) of the institution(s) where the animal research will be conducted;
- (2) The assurance type and number, as applicable, for the cognizant IACUC where the research activity is located. [For example: Animal Welfare Assurance from the Office of Laboratory Animal Welfare (OLAW) should be indicated by the OLAW assurance number, i.e. A-1234; an USDA Animal Welfare Act certification should be indicated by

the certification number i.e. 12-R-3456; and an Association for the Assessment and Accreditation of Laboratory Animal Care (AAALAC) should be indicated by AAALAC.]

- (3) The IACUC approval date (if currently approved);
- (4) If the review by the cognizant Institutional Animal Care and Use Committee (IACUC) is pending, the estimated start date for research involving vertebrate animals;
- (5) If any assurances or IACUCs need to be obtained or established, that should be clearly stated.

Additional documentation will be requested, as warranted, during review of the proposal, but may include the following for research activities involving live vertebrate animals that are planned in the first year of the award:

- (1) A signed (by the Principal Investigator) copy of the IACUC approved Animal Study Proposal (ASP);
- (2) Documentation of the IACUC approval indicating the approval and expiration dates of the ASP; and
- (3) If applicable, a nonduplication-of-funding letter if the ASP is funded from several sources.
- (4) If a new ASP will only be submitted to an IACUC if an award from NIST issued, a draft of the proposed ASP may be requested.
- (5) Any additional clarifying documentation that NIST may request during review of proposals to perform the NIST administrative review of research involving live vertebrate animals.

- f. Funding Availability and Limitation of Liability.** Funding for the program listed in this FFO is contingent upon the availability of appropriations. In no event will NIST or DoC be responsible for application preparation costs if this program fails to receive funding or is cancelled because of agency priorities. Publication of this FFO does not obligate NIST or DoC to award any specific project or to obligate any available funds.

### **3. Reporting.**

- a. Reporting Requirements.** In lieu of the reporting requirements described in sections A.01 Financial Reports and B.01 Performance (Technical) Reports of the DoC Financial Assistance Standard Terms and Conditions dated March 2008 (<http://www.osec.doc.gov/oam/archive/docs/GRANTS/DOC%20STCsMAR08Rev.pdf>), the following reporting requirements shall apply:

- (1) Financial Requirements – Financial Report.** Each award recipient will be required to submit an SF-425, Federal Financial Report, in triplicate (an original and two (2) copies) within 30 days after the end of the program.
- (2) Performance (Technical) Report.** Each award recipient shall require the teacher(s) accepted into the NIST RET Program to submit to his/her institution and to NIST, a brief report (at least one (1) page) on his/her experiences and accomplishments during the program. In addition, the report should describe how the teacher will implement what was learned during the NIST RET Program experience to the classroom. The report must be submitted on the last day of the teacher's participation in NIST RET Program. The level of detail should allow for NIST's assessment of the overall success of the program.

- b. Federal Funding Accountability and Transparency Act of 2006.** In accordance with 2 C.F.R. part 170, all recipients of a Federal award made on or after October 1, 2010, are required to comply with reporting requirements under the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. No. 109-282). In general, all recipients are responsible for reporting sub-awards of \$25,000 or more. In addition, recipients that meet certain criteria are responsible for reporting executive compensation. Applicants must ensure they have the necessary processes and systems in place to comply with the reporting requirements should they receive funding. Also see the *Federal Register* notice published September 14, 2010, at 75 FR 55663.

**VII. Agency Contacts**

Questions should be directed to the following contact persons:

Subject Area	Point of Contact
Programmatic and technical questions	Mary Satterfield Phone: 301-975-5364 Fax: 301-330-3447 E-mail: <a href="mailto:mary.satterfield@nist.gov">mary.satterfield@nist.gov</a>
Administrative, budget, and eligibility questions	Barbara Lambis Phone: 301-975-4447 Fax: 301-975-8620 E-mail: <a href="mailto:barbara.lambis@nist.gov">barbara.lambis@nist.gov</a>
Grant rules and regulations	James Browning Phone: 301-975-8088 Fax: 301-840-5976 E-mail: <a href="mailto:james.browning@nist.gov">james.browning@nist.gov</a>

**VIII. Other Information.**

The NIST Summer Institute for Middle School Science Teachers (NIST Summer Institute) Program (Funding Opportunity Number 2012-NIST-SUMMER-INSTITUTE-01) is a program related to the NIST RET Program.