#### August 2, 2013

# AMENDED ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY FOR THE ADVANCED MATERIALS CENTER OF EXCELLENCE AMENDMENT 1

The National Institute of Standards and Technology (NIST) is amending its June 27, 2013 Announcement of Federal Funding Opportunity (FFO) (2013-NIST-ADV-MAT-COE-01) posted on Grants.gov and on the NIST Web site (<a href="http://www.nist.gov/coe/advmat/upload/coe-advmat-ffo.pdf">http://www.nist.gov/coe/advmat/upload/coe-advmat-ffo.pdf</a>) that solicits proposals for the Advanced Materials Center of Excellence program.<sup>1</sup>

NIST is issuing this amendment (Amendment 1) to the FFO to make seven (7) changes below.

Changes one (1) through four (4) are being made because the award is expected to be a five year project, but the mechanism for recording the fifth year of funding for the applicant and known subawards, if applicable, in the application was not clear in the FFO. Specifically, it has been clarified that the standard application package only provides one SF-424A form and that additional forms will be needed and these must be retrieved from the internet outside of <a href="www.grants.gov">www.grants.gov</a> (Change #1). In addition, it has been clarified that item number 18 in the applicant's SF-424 form should provide the total budget information for the full five (5) years of the project (Change #2). In addition, it has been clarified that the applicant's SF-424A form in the application package accommodates only four (4) years of proposed funding and that the applicant must submit an additional SF-424A form to describe the proposed funding for the fifth year of the project by completing a fillable SF-424A that must be retrieved from the internet outside of Grants.gov and submitted as an attachment to the application package on Grants.gov (Change #3). In addition, the instructions for submission of the SF-424A forms for known subawards, if applicable, have been clarified to indicate that for each known subaward, two fillable SF-424A forms must be submitted, one to cover the first four (4) years of the project for the subaward and an additional one to cover year five (5) of the project (Change #4).

Changes five (5) and six (6) provides instructions for submission of the Indirect Cost Rate Agreements for known subawards, if applicable.

Change seven (7) clarifies the page limit exclusions.

Each of the seven (7) changes is described below.

#	New Page	Section	What does the revision do?	How does the new paragraph now read?
1	8	IV.1	The amendment clarifies that the standard application package only provides one SF-424A form and that additional forms will be needed and must be retrieved from the internet outside of <a href="www.grants.gov">www.grants.gov</a> and submitted as attachments to the application package on <a href="www.grants.gov">www.grants.gov</a> .	Address to Request Application Package. The standard application package, consisting of the standard forms, i.e., SF-424, SF-424A, SF-424B, SF-LLL, and the CD-511, is available at www.grants.gov. The application package provides only one SF-424A form. Additional SF-424A forms will be needed, as described in Section IV.2.a.(2) and must be retrieved from the internet, outside of www.grants.gov as described in Section IV.2.a.(2).  The standard application package and

<sup>&</sup>lt;sup>1</sup> All page number references are to the full text of the Amended FFO, including the revisions being made with this amendment.

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#	New Page	Section	What does the revision do?	How does the new paragraph now read?
				additional SF-424A forms may be requested by contacting the NIST personnel listed below:  Jason Averill, National Institute of Standards and Technology, Advanced Materials Center of Excellence, 100
				Bureau Drive, Mail Stop 1060, Gaithersburg, MD 20899-1060. Phone: 301-975-2661, email: jason.averill @nist.gov.
2	8	IV.2.a.(1)	The amendment changes instructions for submission of the applicant's SF-424 form to request funding information for the total award period rather than just the first year in the FFO section "SF-424, Application for Federal Assistance." The change adds the following sentence: "Applicants should enter total budget information for the full five (5) years of the project in item 18 on the SF-424."	SF-424, Application for Federal Assistance. The SF-424 must be signed by an authorized representative of the applicant organization. The FFO number 2013-NIST-ADV-MAT-COE-01 should 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. Applicants should enter total budget information for the full five (5) years of the project in item 18 on the SF-424.
3	8 - 9	IV.2.a.(2)	The amendment changes the instructions for submission of the applicant's SF-424A to accommodate the difference between the term of the anticipated awards and the year span reflected on the SF-424A in the FFO section "SF-424A, Budget Information – Non-Construction Programs." The change adds text to indicate the applicant should submit two SF-424A forms. The first SF-424A form should cover the first 4 years of the project and is the SF-424A form that appears as part of the mandatory forms in the Grants.gov application package. The second SF-424A form, which is to be accessed via a hyperlink specified in Section IV.2.a.(2) of the FFO, will cover year five (5) of the project and is to be submitted as an attachment on Grants.gov as described in Section IV.2.a.(2) of the FFO.  In addition, the second paragraph of Section IV.2.a.(2) was clarified by changing the word "subrecipient" to "subaward" to match the text Section IV.2.a.(2) points to in	SF-424A, Budget Information - Non-Construction Programs. The budget should reflect anticipated expenses for each year of the project, considering all potential cost increases, including cost of living adjustments. The applicant should submit two SF-424A forms. The first SF-424A form should cover the first four (4) years of the project and is the SF-424A form that appears as part of the mandatory forms in the Grants.gov application package. The second SF-424A form should be submitted to cover year five (5) of the project. A fillable SF-424A form can be found at <a href="http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf">http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf</a> . Applicants should download the fillable SF-424A form, complete the information for year five (5) of the project and submit the completed form as an attachment by clicking on "Add Attachments" found in item 15 of the SF-424, Application for Federal Assistance (see Section IV.2.a.(1)).  If known subawards are included in the proposal, additional SF-424A forms for each known subaward should be submitted in addition to the SF-424A forms for the project as a whole. See Section

#	New Page	Section	What does the revision do?	How does the new paragraph now read?
			Section IV.2.a.(10) regarding the SF-424A form requirements for subawards.	IV.2.a.(10) of this FFO for details of this requirement.
4	10	IV.2.a.(10)	The amendment changes the instructions for submission of the SF-424A forms for known subawards (if applicable) to accommodate the difference between the term of the anticipated awards and the year span reflected on the SF-424A in the FFO section "SF-424A, Budget Information - Non-Construction Programs for known subawards, if applicable." The change adds text to indicate the applicant should submit for each known subaward (if applicable) two SF-424A forms. The first SF-424A form should cover the first 4 years of the project, and a second SF-424A form should cover year five (5) of the project.	SF-424A, Budget Information - Non-Construction Programs for known subawards, if applicable. If known subawards are part of the proposal, two SF-424A forms for each known subaward should be submitted in addition to the SF-424A forms listed in Section IV.2.a.(2) of this FFO. A fillable SF-424A form can be found at <a href="http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf">http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf</a> . For each known subaward, applicants should download two fillable SF-424A forms, and submit one form to cover the first four (4) years of the project for the subaward AND an additional form should be submitted to cover year five (5) of that subaward. List the name of the subawardee for whom the SF-424A is being submitted in Section A, field 1, column (a) of its own SF-424A forms. Completed SF-424A forms for each known subaward should be submitted as described below in the last paragraph of Section IV.2.a.
5	10 - 11	IV.2.a.(11)	The amendment provides instructions for submission of the Indirect Cost Rate Agreements for known subawards (if applicable).	Indirect Cost Rate Agreements for known subawards, if applicable. If known subawards are part of the proposal, and indirect costs are included in the proposed budget for the subawards, provide a copy of each approved negotiated agreement for the subawardee, if this rate was negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. Known subawardees of successful applicants will be required to obtain such a rate.
6	11	IV.2.a Last Paragraph	The amendment provides instructions for attaching any Indirect Cost Rate Agreements for known subawards to the main application package.	Items IV.2.a.(1) through IV.2.a.(5) above are part of the standard application package in Grants.gov and can be completed through the download application process. Items IV.2.a.(6) through IV.2.a.(11) must be completed and attached by clicking on "Add Attachments" found in item 15 of the SF-424, Application for Federal Assistance. This will create a zip file that allows for transmittal of the documents electronically via Grants.gov. Applicants should carefully follow specific Grants.gov instructions at www.grants.gov

#	New Page	Section	What does the revision do?	How does the new paragraph now read?
				to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating a proposal is received does not provide information about whether attachments have been received.
7	11	IV.2.b.(9)	The amendment clarifies that the SF-424A forms and Indirect Cost Rate Agreement(s) for the applicant and known subawards (if applicable) are excluded from the page limit	Page limit excludes: SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs (for applicants and known subawards (if applicable)); SF-424B, Assurances – Non-Construction Programs; SF-LLL, Disclosure of Lobbying Activities; CD-511, Certification Regarding Lobbying; Onepage Resumes (if applicable); Budget Narrative; Letters of Commitment or Interest (if applicable); and Indirect Cost Rate Agreements for applicants and for each known subaward (if applicable).

No other revisions are being made by this amendment. The full text of the Amended FFO, including the revisions being made now, is set forth below.

## ANNOUNCEMENT OF FEDERAL FUNDING OPPORTUNITY (FFO) Advanced Materials Center of Excellence

#### **EXECUTIVE SUMMARY**

- Federal Agency Name: National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC)
- Funding Opportunity Title: Advanced Materials Center of Excellence
- Announcement Type: Initial
- Funding Opportunity Number: 2013-NIST-ADV-MAT-COE-01
- Catalog of Federal Domestic Assistance (CFDA) Number: 11.609, Measurement and Engineering Research and Standards
- **Dates:** Electronic applications must be received no later than 11:59 p.m. Eastern Time on Monday, August 12, 2013. Applications received after this deadline will not be reviewed or considered. The earliest anticipated start date for awards under this FFO is expected to be November 1, 2013.
- Proposal Submission Address: See Section IV in the Full Announcement Text of this FFO.
- Funding Opportunity Description: NIST is soliciting applications to establish an Advanced Materials Center of Excellence in which NIST researchers collaborate with interdisciplinary researchers from academia and industry on advanced materials development through innovations in measurement science and in new modeling, simulation, data, and informatics tools.
- **Funding Availability:** NIST anticipates approximately \$5,000,000 per year may be made available to award one (1) multi-year award to an eligible applicant. This award would be for up to five (5) years with the possibility to renew for an additional 5 years at the end of the initial award period. If renewed, NIST anticipates a total of approximately \$50,000,000 may be available.
- Funding Instrument: Cooperative agreement.
- Who Is Eligible: Accredited institutions of higher education and non-profit organizations located in the United States and its territories. (See <a href="http://www07.grants.gov/aboutgrants/eligibility.jsp">http://www07.grants.gov/aboutgrants/eligibility.jsp</a> for a complete list of organization types recognized by Grants.gov.) An eligible organization may work individually or include proposed subawardees, contractors or other collaborators in a project proposal, effectively forming a team or consortium. An organization may only be the lead organization on one proposal. In a team or consortium, eligible subawardees are U.S. non-profit organizations, accredited institutions of higher education, commercial organizations, and state, tribal, and local governments. Federal agencies may participate in projects but may not receive NIST funding.
- Cost Sharing Requirements: This program does not require cost sharing.
- **Webinar**: NIST plans to hold a webinar to offer information on the Advanced Materials Center of Excellence. The webinar will also offer general guidance on preparing proposals and provide an opportunity for the public to ask questions about the program. Attendance at the webinar is not required. There is no cost for the webinar, but participants must register in advance to participate. Information on and registration for the webinar is available at <a href="www.nist.gov/mgi">www.nist.gov/mgi</a>.

#### **FULL ANNOUNCEMENT TEXT**

#### I. Funding Opportunity Description

The statutory authority for the Advanced Materials Center of Excellence is 15 U.S.C. § 272(b)(4), (c)(3) and (c)(8).

Advanced materials are essential to economic security and human well-being, with applications in many industries, including those aimed at addressing challenges in clean energy, national security, and human welfare. Accelerating the pace of discovery and deployment of advanced materials is crucial to achieving global competitiveness in the 21st century. Currently, the time frame for incorporating new classes of materials into applications is remarkably long, typically about 10 to 20 years from initial research to first use. As today's scientists and engineers explore a new generation of advanced materials to solve the grand challenges of the 21st century, reducing the time required to bring these discoveries to market will be a key driving force behind a more competitive domestic manufacturing sector and economic growth. Such a goal of time reduction is the key objective of the Administration's Materials Genome Initiative announced in 2011 (http://www.whitehouse.gov/mgi and www.nist.gov/mgi). The lengthy time frame for materials to move from discovery to market is due in part to the continued reliance of materials research and development programs on scientific intuition and trial and error experimentation. Much of the design and testing of materials is currently performed through time-consuming and repetitive experiment and characterization loops. Significant time reductions may be achieved if some of these experiments could be performed virtually with powerful and accurate computational tools such as those being developed in the Materials Genome Initiative. To accelerate the identification and development of advanced materials, it is necessary to bring together the abilities to design materials with computational tools, to rapidly produce prototype materials, and to measure and assess materials properties and performance.

By combining NIST's expertise and experience in materials science, materials characterization, reference data, and standards with leading research capabilities for designing, producing, and processing advanced materials, the Advanced Materials Center of Excellence will create a collaborative environment and concentration of scientific and technical capability to accelerate materials discovery and development; provide opportunities to transition new breakthroughs in advanced materials to industry, convene multidisciplinary and multi-sector communities for in-depth discussions; and provide training opportunities for scientists and engineers in materials metrology. This Center of Excellence will contribute to and demonstrate use of the tools and resources developed by the Materials Genome Initiative to create a new era of materials innovation that will serve as a foundation for strengthening domestic industry.

Competitive applications for a Center should demonstrate the applicant's ability to create and manage a world-class research program aimed at broadly accelerating the design, discovery, development and deployment of advanced materials by the nation's academic and industry enterprises. Proposed Centers should address two broad challenges through a partnership with NIST:

- Foster the development of integrated computational, modeling and other data-driven tools needed to achieve the accelerated development of advanced materials as envisioned in the administration's Materials Genome Initiative, including;
  - the development of new modeling, simulation and other computational tools for materials design,
  - the development of advanced information management systems needed to support the creation and integration of tools for data-driven scientific discovery and engineering of materials,
  - the establishment of standards, infrastructure, and reference databases needed to enable reliable computational-driven materials discovery and optimization, and
- 2) Foster the discovery of revolutionary new materials by academic and industry researchers by leveraging and amplifying access to the world-class, often unique facilities and expertise for materials characterization at NIST including:
  - NIST methods in x-ray and neutron scattering and diffraction tools tailored for the analysis of soft materials, lightweight alloys, and advanced electronics,

- NIST soft x-ray synchrotron tools for nanoscale-resolved mapping of materials composition and structure
- NIST advanced microscopy facilities that provide hyperspectral analysis of materials structure and properties
- NIST expertise and facilities in nanomechanical testing and nanomaterials analysis
- NIST facilities for combinatorial materials library production and high-throughput testing.

It is expected that in each of these endeavors the recipient will accelerate the adoption of tools into the advanced manufacturing industry, and that the recipient will establish opportunities for extended collaborations between NIST, lead and partner institutions, and recipient scientists through the Center, employing mechanisms such as staff exchanges, jointly advised graduate students, post-doctoral researchers and senior guest scientists. Refer to <a href="http://www.nist.gov">http://www.nist.gov</a> and <a href="http://www.nist.gov/mgi">www.nist.gov/mgi</a> for more information about NIST and the areas of research collaboration presently available to the Advanced Materials Center of Excellence participants.

Consistent with 15 U.S.C. § 278g-1(c), applicants are encouraged to promote the participation of underrepresented minorities in any research and/or staff exchange programs conducted under an award pursuant to this FFO.

Pursuant to Executive Orders (EOs) 13555 ("White House Initiative on Educational Excellence for Hispanics"), 13270 ("Tribal Colleges and Universities"), and 13532 ("Promoting Excellence, Innovation, and Sustainability at Historically Black Colleges and Universities"), DOC is strongly committed to broadening the participation of minority serving institutions (MSIs) in its financial assistance programs. DOC's goals include achieving full participation of MSIs in order to advance the development of human potential, strengthen the Nation's capacity to provide high-quality education, and increase opportunities for MSIs to participate in and benefit from Federal financial assistance programs. DOC encourages all applicants and recipients to include meaningful participation of MSIs. Institutions eligible to be considered MSIs are listed on the Department of Education website located here: <a href="http://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html">http://www2.ed.gov/about/offices/list/ocr/edlite-minorityinst.html</a>.

In addition, DOC encourages recipients to utilize small businesses, minority business enterprises and women's business enterprises in contracts under financial assistance awards. The Minority Business Development Agency will assist recipients in matching qualified minority business enterprises with contract opportunities. For further information visit MBDA's website at <a href="http://www.mbda.gov">http://www.mbda.gov</a>.

#### 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 between NIST and the recipient organizations. This includes NIST collaboration with a recipient on the scope of work. Additional forms of substantial involvement that may arise are described in Chapter 5.C. in the Department of Commerce (DoC) Grants and Cooperative Agreements Manual, which is available at <a href="http://www.osec.doc.gov/oam/grants\_management/policy/documents/FINAL%20Master%20DOC%20">http://www.osec.doc.gov/oam/grants\_management/policy/documents/FINAL%20Master%20DOC%20</a> Grants%20Manual%202013%20(03.01.13) b.pdf.
- 2. Multi-Year Funding Policy. When a proposal for a multi-year award is approved, funding will usually be provided for only the first year of the program. If a project is selected for funding, NIST has no obligation to provide any additional funding in connection with that award. Continuation of an award to increase funding or extend the period of performance is at the sole discretion of NIST. Continued funding will be contingent upon satisfactory performance, continued relevance to the mission and priorities of NIST, and the availability of funds.
- 3. Funding Availability. NIST anticipates approximately \$5,000,000 per year may be made available to award one (1) multi-year award to an eligible applicant. This award would be for up to five (5) years with the possibility to renew for an additional 5 years at the end of the initial award period. If renewed, NIST anticipates a total of approximately \$50,000,000 may be available.

#### III. Eligibility Information

- 1. Eligible Applicants. Accredited institutions of higher education and non-profit organizations located in the United States and its territories. (See <a href="http://www07.grants.gov/aboutgrants/eligibility.jsp">http://www07.grants.gov/aboutgrants/eligibility.jsp</a> for a complete list of organization types recognized by Grants.gov.) An eligible organization may work individually or include proposed subawardees, contractors or other collaborators in a project proposal, effectively forming a team or consortium. An organization may only be the lead organization on one proposal. In a team or consortium, eligible subawardees are U.S. non-profit organizations, accredited institutions of higher education, commercial organizations, and state, tribal, and local governments.. Federal agencies may participate in projects but may not receive NIST funding.
- 2. Cost Sharing or Matching. This program does not require cost sharing.
- 3. Other

Pre-Applications. NIST is not accepting pre-proposals or white papers under this FFO.

#### IV. Application/Proposal and Submission Information

1. Address to Request Application Package. The standard application package, consisting of the standard forms, i.e., SF-424, SF-424A, SF-424B, SF-LLL, and the CD-511, is available at <a href="www.grants.gov">www.grants.gov</a>. The application package provides only one SF-424A form. Additional SF-424A forms will be needed, as described in Section IV.2.a.(2) and must be retrieved from the internet, outside of <a href="www.grants.gov">www.grants.gov</a> as described in Section IV.2.a.(2). The standard application package and additional SF-424A forms may be requested by contacting the NIST personnel listed below:

Jason Averill, National Institute of Standards and Technology, Advanced Materials Center of Excellence, 100 Bureau Drive, Mail Stop 1060, Gaithersburg, MD 20899-1060. Phone: 301-975-2661, email: jason.averill@nist.gov.

### 2. Content and Format of Application/Proposal Submission

#### a. Required Proposal Forms and Documents

Proposals must contain the following:

- (1) SF-424, Application for Federal Assistance. The SF-424 must be signed by an authorized representative of the applicant organization. The FFO number 2013-NIST-ADV-MAT-COE-01 should 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. Applicants should enter total budget information for the full five (5) years of the project in item 18 on the SF-424.
- (2) SF-424A, Budget Information Non-Construction Programs. The budget should reflect anticipated expenses for each year of the project, considering all potential cost increases, including cost of living adjustments. The applicant should submit two SF-424A forms. The first SF-424A form should cover the first four (4) years of the project and is the SF-424A form that appears as part of the mandatory forms in the Grants.gov application package. The second SF-424A form should be submitted to cover year five (5) of the project. A fillable SF-424A form can be found at <a href="http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf">http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf</a>. Applicants should download the fillable SF-424A form, complete the information for year five (5) of the project and submit the completed form as an attachment by clicking on "Add Attachments" found in item 15 of the SF-424, Application for Federal Assistance (see Section IV.2.a.(1)).

If known subawards are included in the proposal, additional SF-424A forms for each known subaward should be submitted in addition to the SF-424A forms for the project as a whole. See Section IV.2.a.(10) of this FFO for details of this requirement.

- (3) SF-424B, Assurances Non-Construction Programs
- (4) CD-511, Certification Regarding Lobbying
- (5) SF-LLL, Disclosure of Lobbying Activities (if applicable)
- (6) Technical Proposal. The Technical Proposal is a word-processed document of no more than twenty-five (25) pages responsive to the program description (see Section I. of this FFO) and the evaluation criteria (see Section V.1. of this FFO). It should contain the following information:
  - (a) Executive Summary. An executive summary, describing the proposed Advanced Materials Center of Excellence consistent with the evaluation criteria (see Section V.1. of this FFO). The executive summary should not exceed one (1) single-sided page.
  - **(b) Statement of Work**. A statement of work that discusses the specific tasks proposed to be performed, including a schedule of measurable events and milestones. This section should be the primary, but not only, means by which the proposal will be evaluated according to the *Rationality* and *Technical Merit of Contribution* evaluation criteria (see Section V.1. of this FFO).
  - (c) Experience (Qualifications), Resource Availability, and Industry Impact. A description of the qualifications and proposed operational or management activities of key personnel who will be assigned to work on the proposed project must be provided, including examples of past experience leading programs similar in nature to those described in this FFO, experience working with state government representatives, industry, academia, independent research organizations, and/or related organizations. One-page resumes of no more than five key personnel may be included; these do not count toward the page limit; any information beyond one-page for each resume will not be considered.

Proposals should also describe how the recipient will manage the funds to support R&D in the area of Advanced Materials. Specifically, proposals should:

- i. demonstrate that the recipient has a strong technological vision and research agenda;
- ii. describe research focus areas, and plans for evolving new areas (including: scope of work and budget for each proposed project year);
- iii. describe a broad engagement plan to determine critical industrial needs that the participants in the Center can address;
- iv. describe collaboration model for integrating NIST research and staff into technical focus areas;
- v. describe new computational, simulation, and informatics tools that will be developed for integration into the Materials Genome initiative;
- vi. describe the resources committed to the proposal, including the quality and quantity of personnel, equipment, and nature of subawards (if any);
- vii. describe plans and metrics for evaluating the outputs of the research effort; and
- viii. describe plans that demonstrate meaningful potential for commercialization.

The proposal should illustrate the technical expertise of the applicant relevant to the application of standards, measurement infrastructure, and computational tools in accelerating the deployment of Advanced Materials into the economy.

This section should be the primary, but not only, means by which the proposal will be evaluated according to the *Experience (Qualifications)*, *Resource Availability*, and *Industry Impact* evaluation criteria (see Section V.1. of this FFO).

(d) Success Metrics. Three or more metrics that indicate whether measureable progress is being made towards programmatic objectives should be described. Outputs from the Center may be quantified, such as the number and quality of publications, number and types of materials developed, or software or tools developed, number and type of data collected, archived, or made publically available. Impact metrics may also be proposed, such as industries or companies supported, economic assessments, or consensus standards submitted or approved.

This section should be the primary, but not only, means by which the proposal will be evaluated according to the *Success Metrics* evaluation criteria (see Section V.1. of this FFO).

- (7) Budget Narrative. There is no set format for the Budget Narrative; however, it should provide a detailed breakdown of each of the object class categories as reflected on the SF-424A.
- (8) Indirect Cost Rate Agreement. If indirect costs are included in the proposed budget, provide a copy of the approved negotiated agreement if this rate was negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. Successful applicants will be required to obtain such a rate.
- (9) Letters of Commitment or Interest. Letters are not included in the page count.
  - (a) Letters of commitment to participate, as applicable. If the applicant's proposal identifies third parties including contractors, subawardees, and/or other collaborators who will participate in the proposed project, effectively forming a team or consortium, then a letter from each, currently known participant, describing its participation should be submitted. Each letter should indicate the organization's willingness to participate and what they will be doing for the project. A letter should be submitted whether or not the organization is receiving Federal funds.
  - (b) Letters of Interest, optional. Letters of interest may be provided from parties who might benefit from the technology or knowledge developed as discussed in the proposed project.
- (10) SF-424A, Budget Information Non-Construction Programs for known subawards, if applicable. If known subawards are part of the proposal, two SF-424A forms for each known subaward should be submitted in addition to the SF-424A forms listed in Section IV.2.a.(2) of this FFO. A fillable SF-424A form can be found at <a href="http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf">http://www.nist.gov/director/ocfo/grants/upload/sf424a.pdf</a>. For each known subaward, applicants should download two fillable SF-424A forms, and submit one form to cover the first four (4) years of the project for the subaward AND an additional form should be submitted to cover year five (5) of that subaward. List the name of the subawardee for whom the SF-424A is being submitted in Section A, field 1, column (a) of its own SF-424A forms. Completed SF-424A forms for each known subaward should be submitted as described below in the last paragraph of Section IV.2.a.
- (11) Indirect Cost Rate Agreements for known subawards, if applicable. If known subawards are part of the proposal, and indirect costs are included in the proposed budget for the subawards, provide a copy of each approved negotiated agreement for the subawardee, if this rate was negotiated with a cognizant Federal audit agency. If the rate was not established by a cognizant Federal audit agency, provide a statement to this effect. Known

subawardees of successful applicants will be required to obtain such a rate.

Items IV.2.a.(1) through IV.2.a.(5) above are part of the standard application package in Grants.gov and can be completed through the download application process. Items IV.2.a.(6) through IV.2.a.(11) must be completed and attached by clicking on "Add Attachments" found in item 15 of the SF-424, Application for Federal Assistance. This will create a zip file that allows for transmittal of the documents electronically via Grants.gov. Applicants should carefully follow specific Grants.gov instructions at <a href="https://www.grants.gov">www.grants.gov</a> to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating a proposal is received does not provide information about whether attachments have been received.

#### b. Proposal Format

- (1) Paper submissions. Will not be accepted.
- (2) E-mail submissions. Will not be accepted.
- (3) Facsimile submissions (fax). Will not be accepted.
- (4) Figures, graphs, images, and pictures. Should be of a size that is easily readable or viewable and may be landscape orientation.
- (5) Font. Easy to read font (10-point minimum). Smaller type may be used in figures and tables, but must be clearly legible.
- (6) Line spacing. Single-spaced.
- (7) Margins. One (1) inch top, bottom, left, and right.
- (8) Page layout. Portrait orientation only except for figures, graphs, images, and pictures (see Section IV.2.b.(4)).
- (9) Page Limit. Proposals are limited to twenty-five (25) pages.

**Page limit includes**: Table of contents (if included), Technical Proposal with all required sections, including management information and qualifications, figures, graphs, tables, images, and pictures.

**Page limit excludes**: SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs (for applicants and known subawards (if applicable)); SF-424B, Assurances – Non-Construction Programs; SF-LLL, Disclosure of Lobbying Activities; CD-511, Certification Regarding Lobbying; One-page Resumes (if applicable); Budget Narrative; Letters of Commitment or Interest (if applicable); and Indirect Cost Rate Agreements for applicants and for each known subaward (if applicable).

- (10) Page numbering. Number pages sequentially.
- (11) Page size. 21.6 by 27.9 centimeters (8 ½ by 11 inches).
- (12) Language. English.
- 3. Submission Dates and Times. Applications must be received by NIST no later than 11:59 p.m. Eastern Time, Monday, August 12, 2013 via the Grants.gov website. Applications received after the deadline will not be reviewed or considered. NIST will consider the date and time stamped on the validation generated by <a href="https://www.grants.gov">www.grants.gov</a> as the official submission time.

NIST strongly recommends that applicants do not wait until the last minute to submit an application. NIST will not make allowance for any late submissions. To avoid any potential processing backlogs due to last minute Grants.gov registrations, applicants are highly encouraged to begin their Grants.gov registration process early.

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 due date.

- **4. Intergovernmental Review.** Proposals under this Program are not subject to Executive Order 12372.
- 5. Funding Restrictions. Profit or fee is not an allowable cost.
- 6. Other Submission Requirements
- **a. Applications must be submitted electronically.** Electronic applications must be submitted via Grants.gov at www.grants.gov, under announcement 2013-NIST-ADV-MAT-COE-01.
  - (1) Applicants should carefully follow specific Grants.gov instructions to ensure the attachments will be accepted by the Grants.gov system. A receipt from Grants.gov indicating an application is received does not provide information about whether attachments have been received. For further information or questions regarding applying electronically for the 2013-NIST-ADV-MAT-COE-01announcement, contact Christopher Hunton by phone at 301-975-5718 or by e-mail at <u>christopher.hunton@nist.gov.</u>
  - (2) Applicants are strongly encouraged to start early and not wait until the approaching due date before logging on and reviewing the instructions for submitting an application through Grants.gov. The Grants.gov registration process must be completed before a new registrant can apply electronically. If all goes well, the registration process takes three (3) to five (5) business days. If problems are encountered, the registration process can take up to two (2) weeks or more. Applicants must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number (See Section VI.2.b) and must maintain a current registration in the Federal government's primary registrant database, the System for Award Management (https://www.sam.gov/), as explained on the Grants.gov Web site. After registering, it may take several days or longer from the initial logon before a new Grants.gov system user can submit an application. Only authorized individuals will be able to submit the application, and the system may need time to process a submitted application. Applicants should save and print the proof of submission they receive from Grants.gov. If problems occur while using Grants.gov, the applicant is advised to (a) print any error message received and (b) call Grants.gov directly for immediate assistance. If calling from within the United States or from a U. S. territory, please call 800-518-4726. If calling from a place other than the United States or a U. S. territory, please call 606-545-5035. Assistance from the Grants.gov Help Desk will be available around the clock every day, with the exception of Federal holidays. Help Desk service will resume at 7:00 a.m. Eastern Time the day after Federal holidays. For assistance using Grants.gov, you may also contact support@grants.gov.
  - (3) Information essential to successful application submission on the Grants.gov system is detailed in the For Applicants section found in red on the left side of the <a href="www.grants.gov">www.grants.gov</a> home page, and all potential applicants should pay close attention to the information contained therein. The All About Grants, Applicant FAQs, and Submit Application FAQs sections found under the Applicant Resources option are particularly important.

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

**b.** Amendments. Any amendments to this FFO will be announced through Grants.gov. Applicants may sign up on Grants.gov to receive amendments by email, or may request copies from Jason Averill by telephone at (301) 975-2661 or by e-mail to jason.averill@nist.gov.

#### V. Application/Proposal Review Information

- Evaluation Criteria. The evaluation criteria that will be used in evaluating applications are as follows:
- **a.** Rationality (0 to 20 points). The clarity of the applicant's approach to effectively address scientific and technical challenges relevant to the objectives of the Advanced Materials Center of Excellence.
- b. Experience (Qualifications), Resource Availability, and Industry Impact (0 to 30 points). The extent to which the applicant has access to the necessary facilities and overall support to accomplish project objectives. Factors considered as a whole and not given particular weights within the category include: (1) the degree to which requested resources are appropriate for the proposed project's scope; (2) the quality of organizational resources proposed to be used on the project; (3) the rationality and potential effectiveness of any planned subawards and/or contracts; (4) demonstrated commitment to encouraging and assisting underrepresented participants in the proposed project. (5) plans for staff exchange of extended duration, for example of more than sixty (60) days, between NIST and the applicant, including the type and number of personnel; the rationality and effectiveness of a plan to manage intellectual property (IP) generated during the award period, taking into consideration the information provided in paragraph VI.d. of this FFO.
- c. Technical Merit of Contribution (0 to 40 points). The technical merit of the proposed work and the value it would contribute to future breakthroughs in advanced materials. Factors considered as a whole and not given particular weights within the category include: (1) creativity and originality of the proposed approach, (2) plausibility of the technical approach, (3) scope of work, including the number and type of materials and the nature of proposed disciplinary approaches, (4) the magnitude and reach of potential technical outcomes, (5) linkage between the technical outcomes and industry needs as described in the proposal, and (6) degree of integration with NIST programs (consistent with paragraph VI.2.c of this FFO) and capabilities in the areas of advanced materials (see Section I. of this FFO).
- **d.** Success Metrics (0 10 points). The clarity and quality of proposed metrics and mechanisms for evaluating the effectiveness of outputs from the Advanced Materials Center of Excellence, including links to U.S. industry and the potential for commercialization.

#### 2. Review and Selection Process

- a. Initial Administrative Review of Applications. An initial review of timely received applications will be conducted to determine eligibility, completeness, and responsiveness to this FFO and the scope of the stated program objectives. Proposals determined to be ineligible, incomplete, and/or nonresponsive may be eliminated from further review.
- **b.** Full Review of Eligible, Complete, and Responsive Applications. Applications that are determined to be eligible, complete, and responsive will proceed for full reviews in accordance with the review and selection processes below:

Each application will be reviewed by at least three (3) independent, objective reviewers, 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). If non-Federal reviewers are used, the reviewers may discuss the proposals with each other, but scores will be determined on an individual basis, not as a consensus. All applications will be provided to the Evaluation Panel with their respective reviews for further consideration.

An Evaluation Panel will be established. The Evaluation Panel will consist of NIST staff and/or other federal agency employees with appropriate technical expertise. The Evaluation Panel may ask questions of some or all applicants in writing and/or may require teleconferences with some or all applicants. Using the additional information obtained by the Evaluation Panel, the Evaluation Panel will prepare and provide a final adjectival ranking of the applications to the Selecting Official, the NIST Associate Director for Laboratory Programs, or designee, for further consideration, taking into consideration the following:

- (1) results of the reviewers' evaluations;
- (2) the extent to which the proposed scope of the research (materials, computational methods, personnel, or equipment) is complementary to the research programs and research goals in these areas at NIST as described at <a href="https://www.nist.gov/mgi">www.nist.gov/mgi</a>;
- (3) relevance of an application to the program as described in Section I of this FFO.

For decision-making purposes, applications receiving the same adjectival rating will be considered to have an equivalent ranking, although their technical review scores, while comparable, will not necessarily be the same. The adjectival rankings are:

Fundable, Outstanding Fundable, Very Good Fundable Unfundable

The Selecting Official will make final application selections and recommend funding to the NIST Grants Office. The Selecting Official shall select the most meritorious application(s) for award based upon the adjectival ranking of the applications, and may select an application based on.one or more of the following selection factors: the results of the reviewers' evaluations; the Evaluation Panel evaluation; the availability of funds; the extent to which the proposed scope of the research (materials, computational methods, personnel, or equipment) is complementary to the research programs and research goals in these areas at NIST as described at <a href="www.nist.gov/mgi">www.nist.gov/mgi</a>; the relevance to the program as described in Section I. of this FFO; and whether the project duplicates other projects funded by the Department of Commerce or other Federal agencies.

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. NIST also reserves the right to reject a proposal 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 proposals. 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.

- c. Full Review of Award Progress for Renewal. Prior to considering renewal for a second potential five-year, multi-year award term, NIST anticipates seeking an independent, objective evaluation of the Advanced Materials Center of Excellence that includes scientific and technical experts not affiliated with NIST or the recipient to assess the effectiveness and continued desirability of the program. NIST plans to consider the results of such a review, including any findings and recommendations, as part of the process of determining whether to approve potential renewal of the project. This process may be used as part of the overall assessment, consistent with the potential long-term nature and purpose of the program. The full process is expected to include programmatic, policy, financial, administrative, and responsibility assessments, and the availability of funds, consistent with Department of Commerce and NIST policies and procedures in effect at that time.
- 3. Anticipated Announcement and Award Dates. Review and selection is expected to be completed in September 2013. Award processing and the earliest anticipated start date for the award made under this FFO is expected to be November 1, 2013.

#### 4. Additional Information

- **a. Proposal 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 by the submission deadline via Grants.gov.
- b. Notification to Unsuccessful Applicants. Unsuccessful applicants will be notified in writing.
- **c. Retention of Unsuccessful Proposals.** An electronic copy of each non-selected application will be retained for three (3) years for record keeping purposes. After three (3) years, it will be destroyed...

#### VI. Award Administration Information

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
<a href="http://ocio.os.doc.gov/s/groups/public/@doc/@os/@ocio/@oitpp/documents/content/dev01\_002513.p">http://ocio.os.doc.gov/s/groups/public/@doc/@os/@ocio/@oitpp/documents/content/dev01\_002513.p</a>
<a href="mailto:df">df</a>
and the DoC Financial Assistance Standard Terms and Conditions (January 2013) are available at
<a href="http://www.osec.doc.gov/oam/grants\_management/policy/documents/DOC\_Standard\_Terms\_and\_Conditions\_01\_10\_2013.pdf">http://www.osec.doc.gov/oam/grants\_management/policy/documents/DOC\_Standard\_Terms\_and\_Conditions\_01\_10\_2013.pdf</a>.

#### 2. Administrative and National Policy Requirements

- **a. DoC Pre-Award Notification Requirements.** The DoC Pre-Award Notification Requirements for Grants and Cooperative Agreements, 77 FR 74634 (December 17, 2012), are applicable to this FFO and are available at <a href="https://www.federalregister.gov/articles/2012/12/17/2012-30228/department-of-commerce-pre-award-notification-requirements-for-grants-and-cooperative-agreements.">https://www.federalregister.gov/articles/2012/12/17/2012-30228/department-of-commerce-pre-award-notification-requirements-for-grants-and-cooperative-agreements.</a>
- b. Employer/Taxpayer Identification Number (EIN/TIN), Dun and Bradstreet Data Universal Numbering System (DUNS), and System for Award Management (SAM). 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 Federal government's primary registrant database, SAM. 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 SAM (https://www.sam.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 SAM and ASAP.

#### Per 2 C.F.R. Part 25, each applicant must:

- (1) Be registered in the Central Contractor Registry (CCR) before submitting an application noting the CCR now resides in SAM;
- (2) Maintain an active CCR registration, noting the CCR now resides in SAM, 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.

The applicant can obtain a DUNS number from Dun and Bradstreet. A DUNS number can be created within one business day. The CCR or SAM registration process may take five or more business days to complete. If you are currently registered with the CCR, you may not need to make any changes. However, please make certain that the TIN associated with your DUNS number is correct. Also note that you will need to update your CCR registration annually. This may take three or more business days to complete. Information about SAM is available at SAM.gov. See also 2 C.F.R. Part 25 and the Federal Register notice published on September 14, 2010, at 75 FR 55671.

c. Collaborations with NIST Employees. All applications should include a description of any work proposed to be performed by an entity other than the applicant and the cost of such work should ordinarily be included in the budget.

The Advanced Materials Centers of Excellence Program Description specifically anticipates collaboration with NIST. Applicants are not required to collaborate with specific NIST employees and may propose staff exchanges, sabbatical programs, activities involving jointly advised students, and other research collaboration activities without proposing any specific NIST collaborators. If the applicant wishes to propose collaboration with a specific NIST employee, the statement of work should include a statement of this intention, a description of the collaboration, and prominently identify the NIST employee(s) involved, if known. Any collaboration by a NIST employee must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the approval of the proposed collaboration. Any unapproved collaboration will be stricken from the proposal prior to the merit review. Any collaboration with an identified NIST employee that is approved by appropriate NIST management will not make an application more or less favorable in the competitive process.

d. 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 December 17, 2012 (77 FR 74634). 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.

e. Research Projects Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects Including Software Testing. Any application that includes research involving human subjects, human tissue/cells, data or recordings involving human subjects, including software testing, 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 exempt and non-exempt human subjects research activities. Non-exempt human subjects research activities will be required to have protocols 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. Information regarding how to apply for an FWA and register and IRB with OHRP can be found at <a href="http://www.hhs.gov/ohrp/assurances/index.html">http://www.hhs.gov/ohrp/assurances/index.html</a>. The applicant should clearly indicate in the application, by separable task, all research activities believed to be exempt or non-exempt research involving human subjects and the expected institution(s) where the research activities involving human subjects may be conducted.

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.

If an activity/task involves data obtained through intervention or interaction with living individuals or identifiable private information obtained from or about living individuals but the project participant believes that the activity/task is not research as defined under the Common Rule, the following may be requested for that activity/task:

Justification, including the rationale for the determination and in some cases additional documentation, to support a determination that the activity/task in the project is not research as defined under the Common Rule. See 15 C.F.R. 27.102. Some cases may result in a NIST determination or an applicant or recipient may choose to provide an IRB approval (if the project participant uses a cognizant IRB).

If an activity/task involves data obtained through intervention or interaction with living individuals or identifiable private information obtained from or about living individuals but the project participant believes that the task/activity is not research as defined under the Common Rule, the following will be required for that activity/task:

Documentation or an IRB approval (if the project participant has a cognizant IRB), including the rationale for the determination, to support a determination that the activity/task in the project is not research as defined under the Common Rule [see 15 C.F.R. 27.102].

If the application appears to include research activities involving human subjects the following information may be requested during the review process:

- (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/task-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 application, but may include the following for research activities involving human subjects that are planned in the first year of the award:

- 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 application submitted to NIST, if the protocol includes tasks not applicable to the application, or if the protocol is supported by multiple funding sources. For protocols with multiple funding sources, NIST will not approve the study without a non duplication-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 the review process to perform the NIST administrative review of research involving human subjects.
- g. Research Projects Involving Live Vertebrate Animals. Any application that includes participation in research involving live vertebrate animals, that are being cared for, euthanized, or used by the project participants to accomplish research goals, teaching, or testing, 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. 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. The applicant should clearly indicate in the application, by separable task, all research activities believed to include research involving live vertebrate animals and the institution(s) where the research activities involving live vertebrate animals may be conducted.

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 application appears to include research activities involving live vertebrate animals the following information may be requested during the application review process:

- (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 application, 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 Application (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 applications to perform the NIST administrative review of research involving live vertebrate animals.

For more information regarding human subjects or research projects involving live vertebrate animals, contact Linda Beth Schilling, Senior Coordinator and Policy Advisor for Human & Animal Subjects Research at NIST (email: <a href="mailto:linda.schilling@nist.gov">linda.schilling@nist.gov</a>; phone: 301-975-2887).

- h. 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 proposal preparation costs if this program fails to receive funding or is cancelled because of agency priorities. Publication of this FFO does not oblige NIST or DoC to award any specific project or to obligate any available funds.
- i. Collaborations Making Use of Federal Facilities. All proposals should include a description of any work proposed to be performed using Federal facilities.

In addition, if an applicant proposes use of NIST facilities, the statement of work should include a statement of this intention and a description of the facilities. Any use of NIST facilities must be approved by appropriate NIST management and is at the sole discretion of NIST. Prior to beginning the merit review process, NIST will verify the availability of the facilities and approval of the proposed usage. Any unapproved facility use will be stricken from the proposal prior to the merit review.

Examples of some facilities that may be available for collaborations are listed on the NIST Web site, <a href="http://www.nist.gov/user-facilities.cfm">http://www.nist.gov/user-facilities.cfm</a>.

j. DoC Representation by Corporations Regarding an Unpaid Delinquent Tax Liability or a Felony Conviction Under Any Federal Law. In accordance with the Federal appropriations law expected to be in effect at the time of project funding, NIST anticipates that the selected applicant will be provided a form and asked to make a representation regarding any unpaid delinquent tax liability or felony conviction under any Federal law.

#### 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 January 2013 (<a href="http://www.osec.doc.gov/oam/grants\_management/policy/documents/DOC\_Standard\_Terms\_and\_Conditions\_01\_10\_2013.pdf">http://www.osec.doc.gov/oam/grants\_management/policy/documents/DOC\_Standard\_Terms\_and\_Conditions\_01\_10\_2013.pdf</a>), the following reporting requirements shall apply:
  - (1) Financial Reports. Each award recipient will be required to submit an SF-425, Federal Financial Report in triplicate (an original and two (2) copies), on a quarterly basis for the periods ending March 31, June 30, September 30, and December 31 of each year. Reports will be due within 30 days after the end of the reporting period.

- (2) Performance (Technical) Reports. Each award recipient will be required to submit a technical progress report in triplicate (an original and two (2) copies), on an annual basis for each year. Reports will be due 90 days after the grant year. A final technical progress report shall be submitted within 90 days after the expiration date of the award. Two (2) copies of the technical progress report shall be submitted to the Project Manager and the original report to the NIST Grants Officer. Technical progress reports shall contain information as prescribed in 15 C.F.R. § 14.51.
- (3) Patent and Property Reports. From time to time, and in accordance with the Uniform Administrative Requirements and other terms and conditions governing the award, the recipient may need to submit property and patent reports.
- b. OMB Circular A-133 Audit Requirements. Single or program-specific audits shall be performed in accordance with the requirements contained in OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations," and the related Compliance Supplement. OMB Circular A-133 requires any non-Federal entity (i.e., including non-profit institutions of higher education and other non-profit organizations) that expends Federal awards of \$500,000 or more in the recipient's fiscal year to conduct a single or program-specific audit in accordance with the requirements set out in the Circular. Applicants are reminded that NIST, the DoC Office of Inspector General or another authorized Federal agency may conduct an audit of an award at any time.
- c. 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 Contact(s)

Subject Area	Point of Contact
Programmatic and technical questions	Jason Averill
	Phone: 301-975-2661
	Fax: 301-216-0529
	E-mail: jason.averill@nist.gov
Electronic proposal submission through	Christopher Hunton
Grants.gov	Phone: 301-975-5718
	Fax: 301-840-5976
	E-mail: <a href="mailto:christopher.hunton@nist.gov">christopher.hunton@nist.gov</a>
Grant rules and regulations	Scott McNichol
-	Phone: 301-975-5603
	Fax: 301-840-5976
	E-mail: scott.mcnichol@nist.gov

#### VIII. Other Information

**Webinar:** NIST plans to hold a webinar to offer information on the Advanced Materials Center of Excellence. The webinar will also offer general guidance on preparing proposals and provide an opportunity for the public to ask questions about the program. Attendance at the webinar is not required. There is no cost for the webinar but participants must register in advance to participate. Information on and registration for the webinar is available at <a href="https://www.nist.gov/mgi">www.nist.gov/mgi</a>.