

REQUEST FOR APPLICATION (RFA)
National Institute of Standards and Technology (NIST),
NIST JILA Institutional Cooperative Agreement Renewal

EXECUTIVE SUMMARY

- **Federal Agency Name:** National Institute of Standards and Technology (NIST), United States Department of Commerce (DoC).
- **Request for Application Title:** NIST JILA Institutional Cooperative Agreement Renewal.
- **Request for Application Type:** Institutional Renewal.
- **Request for Application Number:** 2015-NIST-JILA-01.
- **Catalog of Federal Domestic Assistance (CFDA) Number:** 11.609, Measurement and Engineering Research and Standards.
- **Dates:** To ensure timely continuation of the ongoing joint research program, electronic applications should be received by 11:59 p.m. Eastern Time, Wednesday, April 15, 2015. Paper applications should be received by NIST by 5:00 p.m. Mountain Time, Wednesday, April 15, 2015. Contact the NIST Federal Program Officer and the NIST Grants Officer listed in Section VII if a deadline extension will be requested. The anticipated start date for the renewal award under this RFA is expected to be June 1, 2015.
- **Request for Application Description:** NIST is soliciting an institutional renewal application from the University of Colorado at Boulder (the University or CU). NIST has a long history of collaboration with the University in research areas such as Astrophysics, Atomic and Molecular Physics, Biophysics, Chemical Physics, Materials Physics, Nanotechnology, Optical Physics, and Precision Measurement. To continue this collaborative effort, NIST invites the University to apply for continued support of JILA, which is a joint enterprise between NIST and the University and which is housed by and receives other resources from the University.
- **Anticipated Funding Amounts:** NIST anticipates that any resulting award from this Request could receive funding over a five year period of approximately \$54 million. Any resulting award will be funded in increments. Funded award amendments may be executed throughout a fiscal year. The actual amount of available Federal funding will vary from year to year and is subject to availability of funds, satisfactory performance, funding priorities of NIST, and is at the sole discretion of NIST. If a funding increment is provided, NIST has no obligation to provide any additional funding in connection with the award. NIST will seek to timely

assess potential continuation of the award to provide further planned or supplemental funding, or to fulfill the planned or any additional period of performance. After five years, upon independent review and evaluation of the program and the recipient, NIST may consider institutional renewal again.

- **Funding Instrument:** Cooperative Agreement.
- **Who Is Eligible:** The only eligible applicant is the Regents of the University of Colorado, acting on behalf of the University of Colorado at Boulder. The proposed award is an institutional renewal award under the Department of Commerce Grants and Cooperative Agreements Manual, Chapter 6, Section A.2.; Chapter 3, Section A.29; Chapter 16, Section J.2.

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FULL REQUEST FOR APPLICATION TEXT

I. Program Description

Under this Program, University personnel will perform research in the areas of atomic physics, chemical physics, materials physics, device physics, optical physics, biophysics and precision measurement. These activities will be initiated in close collaboration with members of the NIST Quantum Physics Division (QPD). The collaboration will include the development, fabrication and construction of scientific apparatuses and the collection, analysis and modeling of experimental results as well as related theoretical activities. These activities will require computing (both hardware and software) support, instrument maker support and a full range of administrative and clerical support.

University personnel will interact and collaborate with members of the NIST Quantum

Physics Division in advancing scientific knowledge and practice in areas basic to the mission of the Division. It is the purpose of this program to produce scientifically appropriate research that is consistent with the mission of the QPD. This currently includes the following broad areas:

- 1) Experimental and theoretical investigation of fundamental atomic systems, including the manipulation of ultra-cold atomic vapors with light and magnetic fields, the extension of these techniques to ultra-cold molecular vapors and the study of quantum degenerate gasses.
- 2) Development of measurement techniques and new theoretical methods to advance the understanding of critical chemical reaction rates and pathways relevant to industrial processes and atmospheric chemistry.
- 3) Study of ultrafast optics, including the nonlinear interaction of light with matter to characterize the electronic and optical properties of materials.
- 4) Development of precision measurement tools such as ultra-stable lasers and their use both in the measurement of fundamental constants, including their possible variation with time, and to test fundamental physical theories.
- 5) Improvement of the theory and instrumentation required for astrophysical measurements.
- 6) Development of nanotechnology techniques and concepts to advance the state of the art for quantum limited electronics, such as single electron transistors, and their utilization for applications such as quantum information and sensors.
- 7) Development of single molecule spectroscopic and physical manipulation techniques and their application, including biologically relevant studies.
- 8) Adaptation of time-domain optical spectroscopic techniques, including the use of ultrashort pulses, to the study of biomolecules and their dynamics, and integrating these techniques with microfluidics, as needed, to provide reveal reaction dynamics.

The data and knowledge gained will benefit NIST, the University and the general public in supporting high technology industry as well as pushing current scientific limits. NIST scientists will bring to bear their unique expertise and resources in collaboration with University technical personnel.

1. University Activities to be Funded by the Cooperative Agreement

a. Research Activities

Through JILA, the University will provide a number of technical experts with expertise complementary to those in the Division and of considerable interest to NIST. By working in collaboration with NIST scientists, these technical experts will carry out important research aimed at advancing the nation's technology base. The JILA organization is unique in this respect, having been organized with the express intention of creating such close collaboration within a common facility. Many efficiencies and synergisms

result from this exceptional arrangement, not the least of which is the flexible interaction among a group of scientists with varied and diverse expertise and background working on a common problem.

Using Federal funds received under the cooperative agreement, the University will provide qualified personnel and support for those personnel to include equipment; materials; communications; mail; transportation; plant activities; telephones; utilities; computers and computer support; multi-user instrumentation; furniture; lab renovations; office and lab supplies; and other research and related support activities as may be beneficial for these collaborative projects and programs. Federally-owned equipment, such as laboratory equipment and computers, may be used at the site. The following are included among items to be funded under the cooperative agreement:

- 1) Salaries and wages of full and part-time scientists, postdoctoral research associates, engineers, administrative and clerical staff, technicians, mechanics and other employees including executives who are directly engaged in the program.
- 2) Research assistantships for graduate and undergraduate students.
- 3) All materials and supplies including machinery, tools and equipment acquired or fabricated for the purpose of performing work under this program.
- 4) Domestic and international travel and subsistence expenses that are essential for performance of this agreement in accordance with the University's practices and travel regulations in effect on the date(s) of travel, including necessary visa fees.
- 5) Support for the JILA Visiting Fellows Program.

b. Facility Support Activities

The scientists of JILA work in state of the art buildings which are located at the University of Colorado at Boulder. Consistent with the purpose of promoting collaboration between NIST and CU, both entities support the facilities which house JILA and contribute to its mutual interests. Using Federal funds received under the cooperative agreement, the University will provide support for the JILA physical facilities.

To fulfill project objectives of mutual interest to CU and NIST, NIST, DoC, and other Federal officials as appropriate, and their contractors, guests, and visitors shall be provided office and laboratory space and parking at the JILA facility site, and allowed the right to occupy, use, and have access to the JILA facility, land, and site at all times, to conduct research and support the goals of JILA for the duration of the project, and through its close-out.

The amount of space will be determined by mutual agreement of the parties, taking into account the number of Federal employees and affiliates working on the project and the types of laboratory facilities and office spaces needed to fulfill project objectives, and shall be revised as needed over the duration of the project.

CU will provide for utilities, security, janitorial services, cleaning, maintenance, renovation, facilities renewal and replacement and associated services at a reliable level consistent with the research and training mission of JILA, and in accordance with all applicable Federal, state, University and other building, fire, safety, hazardous materials, and service codes and standards affecting Federal Government operations, property, or personnel. Inspection certificates will be appropriately displayed.

Facilities, equipment, and systems used for the project shall be free of accident, fire, and any other safety hazards. When such hazards are detected, they must be promptly corrected. If any hazards are a result of actions by the Federal Government, the Federal Government will correct the hazards promptly.

Using Federal funds received under the cooperative agreement, the University will provide routine support to the JILA physical facilities such as: utilities, security, renovations, land, and basic recurring facilities maintenance and operational costs to include: janitorial activities, cleaning, and normal repair and maintenance (to cover such needs as changing light bulbs, fixing plumbing and electrical issues, maintaining the heating, cooling, and process cooling water systems, window washing and repair, door lock repair, roof maintenance, and preventive maintenance for building systems, etc.) It is expected that facilities maintenance and operational costs will be approximately equally shared by CU through the NIST cooperative agreement and by CU separately, which takes into account that this funding agreement is part of a larger Joint Institute.

The University shall also undertake necessary renewal and replacement projects for the JILA buildings. Such projects will require specific approval in advance by NIST.

In addition to the amounts proposed in the budget for renewal and replacement needs of JILA facilities, additional funding may be provided by NIST and CU upon mutual agreement between NIST and CU. These additional funds may be provided by NIST in response to CU proposing specific replacement and renewal projects to be funded from NIST's Safety, Capacity, Maintenance, and Major Repairs (SCMMR) pool and/or from other NIST funding sources for replacement and renewal of facilities. Unlike the amounts for replacement and renewal specifically proposed in the budget, NIST will support the full cost of these additional projects through the NIST JILA cooperative agreement; CU will not be required to provide funds for part of the cost from other sources. However, the University can propose to partially fund each additional replacement and renewal project for which it seeks funding.

Emergency repairs may be completed without the prior approval of NIST, but the University must notify NIST as soon as possible, and no later than five (5) work days after the emergency. Upon completion of repairs, the University shall submit supporting documentation of the emergency descriptions and actual costs as soon as practicable. NIST will determine the allowability of such costs.

Utilities, telecommunications, and parking will be charged based upon actual usage. Up to twenty-two (22) parking spaces in lots in close proximity to the JILA building will be

guaranteed to be made available for NIST's use, at JILA's expense, and other parking permits will be provided and coordinated with NIST on an as needed basis.

2. Statutory Authority

As authorized by 15 U.S.C. § 272 (b)(1)(4)(5)(6)(9)(11)(12) and (c)(2)(3)(5)(10)(11)(16)(17)(21), NIST conducts directly, and supports through grants and cooperative agreements, a basic and applied research program in the general area of fundamental measurement and the determination of fundamental constants of nature, and in related areas of science. In addition, under 15 U.S.C. § 272 (b)(4), 278d(a), NIST is authorized to support improvements in facilities NIST uses in its mission both directly and through grants and cooperative agreements.

II. Federal 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 recipient in carrying out the scope of work. NIST involvement will include:
 - a. Approval by an appropriate Department of Commerce official of substantive provisions of proposed subawards.
 - b. Involvement in the selection of key JILA personnel. The University has final authority over its own personnel.
 - c. Requirement that the appropriate DoC official (a) collaborate with the recipient by working jointly with a recipient scientist or technician in carrying out the scope of work, (b) assist in training recipient personnel, or (c) detail Federal personnel to work on the project effort.
 - d. Specify direction or redirection of the scope of work due to inter-relationships with other projects, such as requiring recipient to achieve a specific level of cooperation with other projects.
 - e. DoC operational involvement during the project to ensure compliance with such statutory requirements as civil rights and environmental protection
 - f. Limitation on recipient discretion with respect to scope of work, organizational structure, staffing, mode of operations and other management processes, coupled with close monitoring of operational involvement during performance.

Additional forms of substantial involvement that may arise are described in Chapter 5.C of the Department of Commerce Grants and Cooperative Agreements Manual, which is available at

[http://www.osc.doc.gov/oam/grants_management/policy/documents/FINAL%20Master%20DOC%20Grants%20Manual%202013%20\(03.01.13\)_b.pdf](http://www.osc.doc.gov/oam/grants_management/policy/documents/FINAL%20Master%20DOC%20Grants%20Manual%202013%20(03.01.13)_b.pdf).

Please note the DoC Grants and Cooperative Agreements Manual is expected to be updated after publication of this Request for Application and before October 1, 2015. Refer to Section VII. of this RFA, Federal Awarding Agency Contacts, Grant Rules

and Regulations, if the link is no longer active or if additional information is needed.

In addition, the cooperative agreement will be entered into in the context of JILA, a Joint Institute of NIST and the University. The involvement of NIST and CU in JILA is detailed in a Memorandum of Understanding (MOU) between NIST and CU that established JILA, and the JILA By-Laws, which derive from the MOU. Both the MOU and By-Laws will be incorporated into any resulting award by reference.

2. **Anticipated Funding Amounts.** NIST anticipates that any resulting award from this Request could receive funding over a five year period of approximately \$54 million. Any resulting award will be funded in increments. Funded award amendments may be executed throughout a fiscal year. The actual amount of available Federal funding will vary from year to year and is subject to availability of funds, satisfactory performance, funding priorities of NIST, and is at the sole discretion of NIST. If a funding increment is provided, NIST has no obligation to provide any additional funding in connection with the award. NIST will seek to timely assess potential continuation of the award to provide further planned or supplemental funding, or to fulfill the planned or any additional period of performance. After five years, upon independent review and evaluation of the program and the recipient, NIST may consider institutional renewal again.

III. Eligibility Information

1. **Eligible Applicant.** The only eligible applicant is the Regents of the University of Colorado, acting on behalf of the University of Colorado at Boulder. The proposed award is an institutional renewal award under the Department of Commerce Grants and Cooperative Agreements Manual, Chapter 6, Section A.2.; Chapter 3, Section A.29; Chapter 16, Section J.2.
2. **Cost Sharing or Matching.** This Program does not require cost sharing in the budget. NIST acknowledges that the anticipated cooperative agreement would be part of a larger NIST/CU Joint Institute in which costs are shared by mutual consent of both parties

IV. Application 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 www.grants.gov. The application package provides only one SF-424A form. For five-year projects, an additional SF-424A form 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.(9). The standard application

package and additional SF-424A form, if applicable, may also be requested by contacting the Technical and Programmatic Contact listed in Section VII of this RFA.

2. Content and Form 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.

SF-424, Item 12, should list the RFA number 2015-NIST-JILA-01.

SF-424, Item 18, should list the total budget information for the duration of the project.

(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. For five-year projects, 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. Details of where to find the second SF-424A form, and how to submit it, are found in Section IV.2.a.(9) of this RFA.

(3) SF-424B, Assurances – Non-Construction Programs

(4) SF-LLL, Disclosure of Lobbying Activities (if applicable)

(5) CD-511, Certification Regarding Lobbying

(6) Technical Proposal. This is a word-processed document, not to exceed fifty (50) pages, and must be responsive to the Program Description (see Section I. of this RFA) and the Evaluation Criteria (see Section V.1. of this RFA). The Technical Proposal should provide a full description of the types of research activities that may be undertaken during the life of the project (5 years). The proposal should provide for a list of proposed research collaboration efforts that the University intends to conduct with NIST's support. The proposed research collaboration descriptions should provide enough detail to allow NIST to determine the level and types of effort to be devoted to the project. Research goals and objectives should be clearly stated.

The Technical Proposal should describe in depth the scope of the proposed project, its goals, the known methods to be used, and the institutional capabilities of the applicant. Resumes for the Principal Investigator and any proposed staff

currently known may be included. Appendices listing patents, publications, etc. may be included. Resumes and Appendices do not count toward the page limit.

- (7) Budget Narrative.** Applicants should use the SF-424A(s) to complete the budget submission (see Section IV.2.a.(2) of this RFA). In addition to the SF-424A(s), applicants should provide a detailed budget narrative to explain fully and justify all proposed project funding for all years in accordance with applicable Federal cost principles set forth in 2. C.F.R. part 200 Subpart E. In this narrative, the applicant should provide adequate information to support the costs identified in each budget category for each year of the project.

The budget should delineate the expected annual NIST funding. The budget should be delineated by Object Class using the SF-424-A, Budget Information – Non-Construction Programs. The following assumptions should be used when preparing the budget:

The number of Research Associates, Graduate Research Assistants, Professional Research Assistants, Electronic Engineers & Specialists, Administrative & Clerical Support, and Student Assistants proposed should be consistent with the levels of support provided over the past two years. Additionally, the level of Technical & Administrative Supplies/Services, Equipment, and Travel proposed should also be consistent with that funded over the past two years.

The budget narrative should provide enough detail so that NIST can make a determination of cost allowability, allocability and reasonableness. NIST will negotiate the budget with the applicant as needed.

Examples of the type of equipment expected to be procured during the 5 year award period may be provided as a general guide to support the budget. Actual equipment to be procured will be determined each year based upon the technical and scientific needs of NIST and CU in accordance with the scientific mission. The research conducted through this cooperative agreement involves such cutting edge, forward thinking efforts, that a firm pre-determined list of equipment is not possible or expected as part of the application.

- (8) Indirect Costs.** Given circumstances unique to this individual project, NIST is implementing an indirect cost rate different than the Federally negotiated rate in this project, as authorized by 2 C.F.R. § 102(b) and § 200.414(c), adopted by the Department of Commerce through 2 C.F.R. § 1327.101. This is due to the cooperative agreement providing financial assistance within the context of JILA, a Joint Institute of NIST and CU involving mutual collaboration and shared costs. Accordingly, it is assumed that General Administrative Recharge (GAR) will be the only indirect cost assessed for research activities and that the GAR

percentage will be set for the whole five year proposal period at the level in effect at the University for the 2015-2016 fiscal year.

Consistent with the current agreement, NIST specifies that zero Indirect Costs (Facilities and Administration charges) be applied to the Facilities Services Support activities which cover facilities costs such as capital improvements, renovations, utilities, telecommunications, janitorial activities, parking and operations and maintenance. These funds are specifically targeted to provide support to the cost of operating and enhancing the facility.

(9) SF-424A, Budget Information - Non-Construction Programs for an application for a five-year project. The SF-424A form that appears as part of the mandatory forms in the Grants.gov application package covers the first four (4) years of the project. 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 <http://www.nist.gov/director/grants/upload/sf424a.pdf>. The applicant 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, using the procedure described in the next paragraph.

If submitting the application electronically via Grants.gov, 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. **Item IV.2.a. (6) through Item IV.2.a.(9) 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.

An applicant should carefully follow specific Grants.gov instructions at www.grants.gov to enable attachments to 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. Applicants will receive a series of receipts during a process of up to two business days before the application is either validated as electronically received by the Federal agency system, or rejected by it.

If submitting an application by paper, all of the required application documents should be submitted as a complete package in the order listed above.

b. Recommended 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 or double, as the applicant prefers.
- (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 the original application is in color, the two (2) copies must also be in color. If submitting electronically via Grants.gov, paper copies are not required.
- (8) **Page layout.** Portrait orientation only.
- (9) **Page limit.** Fifty (50) pages for the Technical Proposal (see Section IV.2.a.(6) of this RFA).
- (10) **Page limit excludes:** SF-424, Application for Federal Assistance; SF-424A, Budget Information – Non-Construction Programs and a second SF-424A, if applicable (see Section IV.2.a.(9) of this RFA); SF-424B, Assurances – Non-Construction Programs; SF-LLL, Disclosure of Lobbying Activities; CD-511, Certification Regarding Lobbying; Resumes and Appendices (if included); Budget Narrative; and applicable Indirect Cost Rate documentation (General Administrative Recharge).
- (11) **Page numbering.** Number pages sequentially.
- (12) **Paper size.** 21.6 by 27.9 centimeters (8 ½ by 11 inches).
- (13) **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.
- (14) **Table of contents.** Optional. Will not be included in the page limit.
- (15) **Typed document.** All applications, including forms, must be typed.

c. **Pre-Applications.** Pre-applications or white papers are not necessary.

3. **Dun and Bradstreet Universal Numbering System (DUNS) Number and System for Award Management (SAM).** The applicant must have a Dun and Bradstreet Data Universal Numbering System (DUNS) number 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. See also Sections IV.7.a.(2).b. and VI.4.b of this RFA for more details.

- 4. Submission Dates and Times.** To ensure timely continuation of the ongoing joint research program, an electronic application should be received by 11:59 p.m. Eastern Time, Wednesday, April 15, 2015. A paper application should be received by NIST by 5:00 p.m. Mountain Time, Wednesday, April 15, 2015. Contact the NIST Federal Program Officer and the NIST Grants Officer listed in Section VII if a deadline extension will be requested.

When developing your submission timeline, keep in mind that (1) a free annual registration process in the electronic System for Award Management (SAM) (see Section VI.4.b.) may take between three and five business days or as long as more than two weeks, and (2) applicants using Grants.gov will receive a series of receipts over a period of up to two business days before learning via a validation or rejection whether a Federal agency's electronic system has received its application.

- 5. Intergovernmental Review.** Applications under this Program are not subject to Executive Order 12372.
- 6. Funding Restrictions.** Profit or fee is not an allowable cost.
- 7. Other Submission Policies.**
 - a. Applications may be submitted by paper or electronically.**

- (1) A paper application (one original and two copies) should be submitted to the NIST personnel identified below.

Dr. Thomas O'Brian
Division Chief
Quantum Physics Division/NIST
JILA
440 UCB
Boulder, Colorado 80309-0440
Contact Dr. O'Brian directly at 303-492-6807 or at thomas.obrian@nist.gov to make arrangements if using hand delivery.

- (2) An electronic application should be submitted via Grants.gov at www.grants.gov, under Request for Application 2015-NIST-JILA-01.

- (a) Submitters of electronic applications 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 2015-NIST-JILA-01 Request for Application, contact Christopher Hunton by phone at 301-975-5718 or by e-mail at christopher.hunton@nist.gov.

- (b) Grant program 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.4.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 log-on before a new Grants.gov system user can submit an application. Only authorized individual(s) 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.

8. To find instructions on submitting an application on Grants.gov, Applicants should refer to the "Applicants" tab in the banner just below the top of the www.grants.gov home page. Clicking on the "Applicants" tab produces the "Grant Applicants" page.

In addition to following the "Steps" and instructions described in the "Applicant Actions" section and its sub-categories, further detailed instructions are described in "Applicant Resources" and all of its subcategories. This appears in

the box near the top left of the Grant Applicants page. Applicants should follow the links associated with each subcategory.

Applicants will receive a series of receipts during a process of up to two business days before the application is either validated as electronically received by the Federal agency system, or rejected by it. Closely following the detailed information in these subcategories will increase the likelihood of acceptance of the application by the Federal agency's electronic system.

Applicants should pay close attention to the instructions under "Applicant FAQs," as it contains information important to successful submission on Grants.gov, including essential details on the naming conventions for attachments to Grants.gov applications.

All Federal grant program 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 volume on Grants.gov may be extremely heavy on the deadline date, and if Grants.gov is unable to accept applications electronically in a timely fashion, applicants 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 mail carriers and/or couriers are not always able to fulfill their guarantees.

- a. **Amendments.** Any amendments to this RFA will be provided in writing to the eligible applicant.

V. Application Review Information

1. **Evaluation Criteria.** The evaluation criteria to be used in evaluating the application will be as follows.
 - a. The quality of the proposed research and development plan and its potential impact on applicable areas of science referenced in the Program Description. This includes the scientific and technical merit, rationality, and potential advancement of discovery and understanding through the proposed work activities.
 - b. The quality of the application in terms of providing easily accessible, diverse, qualified Research Associates, Research Assistants, and other administrative and support staff to be located at the JILA facility at the University campus. This includes the quality of the plan to integrate the applicant's staff effectively into the activities of the JILA facility, including establishing robust communications between the applicant and NIST, and

the quality of the proposed plan in terms of performing collaborative research with NIST and visiting scientists.

- c. The qualifications and experience of the applicant's proposed staff in areas of research referenced in the Program Description or in related scientific or engineering areas that are key to the activities in the proposed project. This should be demonstrated by examples such as publications and invited lectures in applicable fields of science, and the impact of the research may be demonstrated by citations, intellectual property, other public references, and awards.
- d. The quality of the application in terms of ensuring that both the JILA Joint Institute and the JILA cooperative agreement maintain effective collaboration by providing easily accessible administrative support in order to obtain equipment, materials and supplies, travel arrangements, and laboratory renovations as deemed necessary based upon the needs of the JILA/CU/NIST researchers, in support of JILA/CU/NIST research activities.

Each of the above criteria is of equal importance.

2. Review and Selection Process

- a. **Review of the Application.** An initial administrative review of the application will be conducted to determine responsiveness to this RFA and the scope of the stated program objectives. NIST, in its discretion, may accept an application with deficiencies that are easily corrected and/or NIST may request further information from CU before proceeding to full review of the application.

The application will be reviewed by at least three independent, objective NIST scientists and possibly other Federal employees, who are knowledgeable in the subject matter of this RFA and its objectives and who are able to conduct a review based on the evaluation criteria (see Section V.1. of this RFA). Based on the reviewers' scores, a recommendation will be provided to the Selecting Official for further consideration.

James Olthoff, Director of the NIST Physical Measurement Laboratory, or designee will serve as the Selecting Official. The Selecting Official will take into consideration the results of the merit review, availability of funding, and relevance to the program objectives as described above in the Program Description. The Selecting Official will make a funding recommendation to the NIST Grants Officer.

- b. **Institutional Award Review.** In addition to the above review by NIST, to be considered for this five-year institutional renewal award, the Department of

Commerce requires that the NIST Grants Officer and the DoC Office of Acquisition Management receive from the NIST Federal Program Officer the results of an independent review conducted by technically qualified parties not affiliated with NIST or CU that includes any findings and recommendations evaluating the effectiveness of program and/or the performance of the recipient in meeting program goals and objectives. This review, conducted in a separate procedure from this RFA process, is conducted every five years to help the Department determine whether an institutional award program or project should continue, and if so, whether a competition should be held. NIST will take into account the information from this process in determining final action on the JILA Cooperative Agreement Institutional Renewal.

- c. Federal Awarding Agency Review of Risk Posed by Applicants.** After applications are proposed for funding by the Selecting Official, the NIST Grants Management Division performs administrative reviews, which may include a review of the financial stability of an applicant, the quality of the applicant's management systems, the history of performance, and/or the applicant's ability to effectively implement statutory, regulatory, or other requirements imposed on non-Federal entities. Upon review of these factors, if appropriate, special conditions that correspond to the degree of risk may be applied.
- d. Negotiation and Final Action.** NIST reserves the right to negotiate the budget costs with the applicant, 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 an application where information is uncovered that raises a reasonable doubt as to the responsibility of the applicant. NIST may decide not to select the application, or to select only part(s) of any particular application. The final approval of a selected application and issuance of an award will be by the NIST Grants Officer. The award decision of the NIST Grants Officer is final.

3. Anticipated Award Date.

Review, selection, and award processing is expected to be completed in May 2015. The earliest anticipated start date for the award made under this RFA is expected to be June 1, 2015.

VI. Federal Award Administration Information

- 1. Federal 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/>

[dev01_002513.pdf.](#)

2. **Uniform Administrative Requirements, Cost Principles and Audit Requirements.** Through 2 C.F.R. § 1327.101, the Department of Commerce adopted Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 C.F.R. Part 200, which apply to awards in this program. Refer to <http://www.ecfr.gov/cgi-bin/text-idx?SID=bd58a13de66200ce25c4fa5f6fdbf197&node=pt2.1.200&rgn=div5> and <http://www.ecfr.gov/cgi-bin/text-idx?SID=bd58a13de66200ce25c4fa5f6fdbf197&node=pt2.1.1327&rgn=div5>.
3. **Financial Assistance Standard Terms and Conditions.** The DoC will apply Financial Assistance Standard Terms and Conditions to this award. A current version of these terms, dated December 2014, is available at http://www.osec.doc.gov/oam/grants_management/policy/default%20p2.htm.
4. **Administrative and National Policy Requirements**
 - a. **DoC Pre-Award Notification Requirements.** The DoC Pre-Award Notification Requirements for Grants and Cooperative Agreements, 79 FR 78390 (December 30, 2014), are applicable to this RFA and are available at <http://www.gpo.gov/fdsys/pkg/FR-2014-12-30/pdf/2014-30297.pdf>.
 - 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 if applicable, the U.S. Treasury's Automated Standard Application for Payment System (ASAP), if the applicant has received prior Federal awards and has received award funding through 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 Registration (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 EIN/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, available here <http://www.gpo.gov/fdsys/pkg/FR-2010-09-14/pdf/2010-22706.pdf>.

- 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 JILA Cooperative Agreement Institutional Renewal 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 application 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, 2 C.F.R. §200.315, and in Section D.03 of the DoC Financial Assistance Terms and Conditions dated December 26, 2014, found at http://www.osec.doc.gov/oam/grants_management/policy/documents/DOC_Standar

[d Terms 12 26 2014.pdf](#). 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 RFA, 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 Activities Involving Human Subjects, Human Tissue, Data or Recordings Involving Human Subjects Including Software Testing.** Any application that includes research activities involving human subjects, human tissue/cells, or data or recordings involving human subjects, including software testing, must satisfy 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. Research activities involving human subjects who fall within the classes of subjects found in 45 C.F.R. Part 46, Subparts B, C and D must satisfy the requirements of the applicable subpart. In addition, any such application that includes research activities 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 activities include research involving human subjects. NIST policy also requires a NIST administrative review for research involving human subjects approved by a non-NIST Institutional Review Board (IRB). (15 C.F.R. § 27.112 Review by Institution.) If NIST determines that an application includes research activities which involve human subjects, the applicant 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 for those activities under the award until the NIST Grants Officer issues written approval. Retroactive approvals are not permitted.

Organizations that have an IRB are required to follow the procedures of their organization for approval of exempt and non-exempt research activities that involve human subjects, if the application is funded. Both domestic and foreign

organizations performing non-exempt research activities involving human subjects will be required to have protocols approved by a cognizant, active IRB currently registered with the Office for Human Research Protections (OHRP) within the DHHS that is linked to the engaged organizations. All engaged organizations must possess a currently valid Federalwide Assurance (FWA) on file from OHRP. Information regarding how to apply for an FWA and register an IRB with OHRP can be found at <http://www.hhs.gov/ohrp/assurances/index.html>. NIST relies only on OHRP-issued FWAs and IRB Registrations for both domestic and foreign organizations for NIST supported research involving human subjects. NIST will not issue its own FWAs or IRB Registrations for domestic or foreign organizations.

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, and which institutions are expected to be engaged in the research activities.

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 applicant participant(s) believes that the activity/task is not research as defined under the Common Rule, the following information may be requested for that activity/task:

- (1) Justification, including the rationale for the determination and in some cases additional documentation, to support a determination that the activity/task in the application is not research as defined in the Common Rule. See 15 C.F.R. § 27.102 Definitions.
- (2) If the applicant participant(s) uses a cognizant IRB that provides a determination that the activity/task is not research, a copy of that determination documentation will be required by NIST. The applicant participant(s) is not required to establish a relationship with a cognizant IRB if they do not have one, but if the applicant participant(s) has a cognizant IRB that requires review of the activity/task, or the applicant participant(s) elects to obtain IRB review, a copy of the IRB approval/determination documentation will be required by NIST.

NIST will review the information submitted and may coordinate further with the applicant before determining whether the activity/task will be defined as research for purposes of implementing the Common Rule in the applicable NIST financial assistance program or project.

If the application appears to NIST to include exempt research activities, and the performer of the activity or the supplier and/or the receiver of the biological materials or data from human subjects **does not** have a cognizant IRB to provide an exemption determination, the following information may be requested during the

review process so that NIST can evaluate whether an exemption under the Common Rule applies (see 15 C.F.R. § 27.101 To what does this policy apply?):

- (1) The name(s) of the institution(s) where the exempt research will be conducted; and/or from which biological materials or data from human subjects will be provided.
- (2) A copy of the protocol for the research to be conducted; and/or the biological materials or data from human subjects to be collected/provided, not pre-existing samples (*i.e.*, will proposed research collect only information without personal identifiable information, will biological materials or data be de-identified and when and by whom was the de-identification performed, how were the materials or data originally collected).
- (3) For pre-existing biological materials or data from human subjects, provide copies of the consent forms used for collection and a description of how the materials or data were originally collected and stripped of personal identifiers. If copies of consent forms are not available, explain.
- (4) Any additional clarifying documentation that NIST may request during the review process in order to make a determination that the activity/task or use of biological materials or data from human subjects is exempt under the Common Rule (see 15 C.F.R. § 27.101 To what does this policy apply?).

If the application appears to NIST to include research activities (exempt or non-exempt) involving human subjects, and the performer of the activity has a cognizant IRB registered with OHRP, 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 of the engaged organizations has applied for or will apply for an FWA or IRB registration, those details should be clearly provided for each engaged organization.

Additional documentation may be requested by NIST for performers with a cognizant IRB during review of the application, and 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 application submitted to NIST, if the protocol includes tasks not included in 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 is 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. (See 15 C.F.R. § 27.112 Review by Institution.)

This clause reflects the existing NIST policy for Research Involving Human Subjects. Should the policy be revised prior to award, a clause reflecting the policy current at time of award may be incorporated into the award.

If the policy is revised after award, a clause reflecting the updated policy may be incorporated into the award.

For more information regarding research projects involving human subjects, contact Jason Boehm, Director, NIST Program Coordination Office (e-mail: jason.boehm@nist.gov; phone: (301) 975-8678).

- f. Research Applications Involving Live Vertebrate Animals.** Any application that includes research activities involving live vertebrate animals, that will be cared for, euthanized, or used by participants in the research described in the application to accomplish research goals, teaching, or testing, 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. In addition, such applications should be in compliance with the National Research Council's "Guide for the Care and Use of Laboratory Animals (8th edition)," (the Guide) which can be obtained from National Academy Press, 500 5th Street, N.W., Department 285, Washington, DC 20055, or online at <http://grants.nih.gov/grants/olaw/Guide-for-the-Care-and-Use-of-Laboratory-Animals.pdf>.

The requirements described above do not apply to proposed research using preexisting images of animals or to research plans that do not include live animals. The requirements also do not apply to obtaining stock items from animal material suppliers (e.g., tissue banks), such as cell lines and tissue samples, or from commercial food processors, where the vertebrate animal was euthanized for food purposes and not for sample collection. NIST does require documentation for obtaining custom samples from live vertebrate animals from animal material suppliers and other organizations (i.e., universities, companies, and government laboratories, etc.). Custom samples includes samples from animal material suppliers, such as when a catalog item indicates that the researcher is to specify the characteristics of the live vertebrate animal to be used, or how a sample is to be collected from the live vertebrate animal.

Some “field studies” of animals may be exempt under the Animal Welfare Act from full review and approval by an animal care and use committee, as determined by each institution. Field study is defined as “...a study conducted on free-living wild animals in their natural habitat.” However, this term excludes any study that involves an invasive procedure or that harms or materially alters the behavior of an animal under study. Field studies, with or without invasive procedures, may also require obtaining appropriate federal or local government permits (e.g., marine mammals, endangered species etc.)

The applicant should clearly indicate in the application, by separable task, all research activities believed to include research involving live vertebrate animals, the institution(s) where the research activities involving live vertebrate animals may be conducted, and if any special permits are required.

NIST reserves the right to make an independent determination of whether an applicant’s research activities involve live vertebrate animals, custom samples from, or field studies with live vertebrate animals. If NIST determines that the application includes research activities, field studies or custom samples involving live vertebrate animals, the applicant 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 for those activities under the award until the NIST Grants Officer issues written approval.

If an application appears to include research activities, field studies or custom sample collections involving live vertebrate animals the following information may be requested from the applicant during the application review process:

- (1) The name(s) of the institution(s) where the research involving live vertebrate animals will be conducted and/or custom samples collected;
- (2) The assurance type and number, as applicable, for the cognizant Institutional Animal Care and Use Committee (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; a 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 for the Animal Study Protocol (ASP) (if currently approved);
- (4) If the review by the cognizant IACUC is pending, the estimated start date for research involving vertebrate animals;
- (5) If any assurances must be obtained or IACUCs must be established, those details should be clearly provided for each instance.
- (6) If any special permits are required for field studies, those details should be clearly provided for each instance.

Additional documentation may be requested by NIST during review of the application and may include the following for research activities and/or custom sample collections 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 ASP;
- (2) Documentation of the IACUC approval indicating the approval and expiration dates of the ASP; and
- (3) If applicable, a non-duplication-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 (e.g., documentation of special permits).

This clause reflects the existing NIST policy for Research Involving Live Vertebrate Animals. Should the policy be revised prior to award, a clause reflecting the policy current at time of award may be incorporated into the award.

If the policy is revised after award, a clause reflecting the updated policy may be incorporated into the award.

For more information regarding research projects involving live vertebrate animals, contact Linda Beth Schilling, Senior Coordinator and Policy Advisor for Animal Subjects Research at NIST (e-mail: linda.schilling@nist.gov; phone: (301) 975-2887).

- g. Funding Availability and Limitation of Liability.** Funding for the program listed in this RFA 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 RFA does not oblige NIST or DoC to award any specific project or to obligate any available funds.

- h. Certifications Regarding Federal Felony and Federal Criminal Tax Convictions, Unpaid Federal Tax Assessments and Delinquent Federal Tax Returns.** In accordance with Federal appropriations law, an authorized representative of the selected applicant(s) may be required to provide certain pre-award certifications regarding federal felony and federal criminal tax convictions, unpaid federal tax assessments, and delinquent federal tax returns.
- i. Safety.** Safety is a top priority at NIST. If this NIST Grant Program involves Guest Researchers, they will be expected to be safety-conscious, to attend NIST safety training, and to comply with all NIST safety policies and procedures, as required by their guest research agreement.
- j. NIST Guest Researcher Agreement.** If this NIST Grant Program involves Guest Researchers, they will be expected to sign a guest researcher agreement. Assistance with this process may be obtained by contacting the Point of Contact for Programmatic and Technical Questions listed in Section VII. of this RFA.

5. Reporting

- a. Reporting Requirements.** The following reporting requirements described in Sections A.01 Performance (Technical) Reports and B.02 Financial Reports of the DoC Financial Assistance Standard Terms and Conditions dated December 26, 2014, http://www.osec.doc.gov/oam/grants_management/policy/documents/DOC_Standard_Terms_12_26_2014.pdf), apply to awards in this program:
 - (1) Financial Requirements – Financial Report.** Each award recipient will be required to submit an SF-425, Federal Financial Report, on a semi-annual basis for the periods ending March 31 and September 30 of each year. Reports will be due within 30 days after the end of the reporting period to the NIST Grants Officer and Grants Specialist named in the award documents. A final SF-425 shall be submitted within 90 days after the expiration date of the award.
 - (2) Performance (Technical) Report.** Each award recipient will be required to submit a technical progress report on a semi-annual basis for the periods ending March 31 and September 30 of each year. Reports will be due within 30 days after the end of the reporting period. A final technical progress report shall be submitted within 90 days after the expiration date of the award. A copy of the technical progress report shall be submitted to the Project Manager and the original report should be provided to the NIST Grants Officer. Technical progress reports shall contain information as prescribed in 2 C.F.R. § 200.328.

(3) Patent and Property Reports. From time to time, and in accordance with the Uniform Administrative Requirements (see Section VI.2. of this RFA) and other terms and conditions governing the award, the recipient may need to submit property and patent reports.

b. Audit Requirements. 2 C.F.R. Subpart F, adopted by the Department of Commerce through 2 C.F.R. § 1327.101 requires any non-Federal entity (*i.e.*, including non-profit institutions of higher education and other non-profit organizations) that expends Federal awards of \$750,000 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 Subpart. 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 available here <http://www.gpo.gov/fdsys/pkg/FR-2010-09-14/pdf/FR-2010-09-14.pdf>.

6. Full Review of Award Progress for Further Renewal in Five Years

As indicated with respect to the Review and Selection Process this year, the JILA project involves an Institutional Award and may be subject to renewal again in five years, consistent with policies described in the Department of Commerce Grants and Cooperative Agreements Manual, Chapter 16, Section J.2. Prior to considering renewal for another potential five-year, multi-year award term, NIST anticipates seeking an independent, objective evaluation of the JILA Cooperative Agreement 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 again in five years. This process will be considered as part of an 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.

VII. Federal Awarding Agency Contact(s)

Questions should be directed to the following contact persons:

Subject Area	Point of Contact
Programmatic and Technical Questions	Dr. Thomas O'Brian Division Chief Quantum Physics Division/NIST JILA 440 UCB Boulder, Colorado 80309-0440 Phone: (303) 492-6807 E-mail: Thomas.obrian@nist.gov
Technical Assistance with Grants.gov Submissions	Christopher Hunton Phone: (301) 975-5718 Fax: (301) 975-8884 E-mail: christopher.hunton@nist.gov or Grants.gov Phone: (800) 518-4726 E-mail: support@grants.gov
Grant Rules and Regulations	Scott McNichol Phone: (301) 975-5603 Fax: (301) 975-8884 E-mail: scott.mcnichol@nist.gov