

NATIONAL SCIENCE FOUNDATION (NSF)

Cooperative Agreement

Financial & Administrative Terms and Conditions (CA-FATC) Effective February 1, 2012

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1. Awardee Responsibilities and Compliance with Federal Requirements

- a. The awardee has full responsibility for the conduct of the project or activity supported under this award and for adherence to the award conditions. Although the awardee is encouraged to seek the advice and opinion of NSF on special problems that may arise, such advice does not diminish the awardee's responsibility for making sound scientific and administrative judgments and should not imply that the responsibility for operating decisions has shifted to NSF. The awardee is responsible for notifying NSF about: (1) any allegation of research misconduct that it concludes has substance and requires an investigation in accordance with NSF research misconduct regulations published at 45 Code of Federal Regulations (CFR) Part 689; or (2) any significant problems relating to the administrative or financial aspects of the award.
- b. The requirements of this award are contained in these Cooperative Agreement Financial & Administrative Terms and Conditions unless otherwise specified in the award. Certain applicable Federal administrative standards are incorporated by reference. The applicable requirements are contained in:
 - 2 CFR Part 215, Uniform Administrative Requirements for Grants and Cooperative Agreements with Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations. NSF has determined that 2 CFR Part 215 standards also will be applied to commercial organizations, including small businesses:

- 2. 45 CFR Part 602 (the Common Rule implementing Office of Management and Budget (OMB) Circular A-102), for units of State and Local Government.
- C. By acceptance of this award, the awardee agrees to comply with the applicable Federal requirements for cooperative agreements and to the prudent management of all expenditures and actions affecting the award. A listing of National Policy Requirements that awardees must adhere where applicable, located to, http://www.nsf.gov/bfa/dias/policy/rtc/appc_june11.pdf. Documentation for expenditure or action affecting this award must reflect appropriate organizational reviews or approvals that should be made in advance of the action. Organizational reviews are intended to help assure that expenditures are allowable, necessary and reasonable for the conduct of the project, and that the proposed action:
 - 1. is consistent with award terms and conditions;
 - 2. is consistent with NSF and awardee policies;
 - 3. represents effective utilization of resources; and
 - 4. does not constitute a significant project change (see Article 8).

Nothing in this article shall be construed to require administrative reviews or documentation that duplicates those already required by existing organizational systems or by applicable Federal standards, e.g., 2 CFR Part 215.

d. The awardee is responsible for ensuring that the Principal Investigator(s) or Project Director(s) receives a copy of the award conditions, including: the award notice, the budget, these general terms and conditions, any special or award specific terms and conditions, and any subsequent changes in the award conditions. These award conditions are made available to the awardee by NSF in electronic form at http://www.nsf.gov/awards/managing/co-op_conditions.jsp?org=NSF, and may be duplicated, copied or otherwise reproduced by the awardee as appropriate. This provision does not alter the awardee's full responsibility for conduct of the project and compliance with all award terms and conditions. Cooperative agreements are available electronically via the NSF FastLane system at https://www.fastlane.nsf.gov/. Sponsored project offices are able to view, print and/or download NSF awards for their organizations and Principal Investigators (PIs) can access their individual awards through use of the FastLane system.

2. NSF Responsibilities

- a. NSF has overall responsibility for NSF-funded awards, including providing award oversight for technical/programmatic, as well as financial and administrative performance. The cognizant NSF Program Officer may participate in discussions of programmatic, technical, managerial, and/or scheduling concerns; provide guidance and/or advice, especially with regard to the integration, collaboration, and coordination with other education projects funded by NSF; will review and, where required by the Agreement, approve technical or programmatic reports and information submitted by the awardee; and may schedule desk and on-site reviews as necessary to resolve any NSF award questions or resolve follow-up audit issues.
- b. The awardee shall submit all requests for prior approval in accordance with the procedures identified in 3.d. below.

The NSF Program Officer will only request additional work within the scope of the award;
 will only issue instructions that do not constitute significant changes as defined in Article
 and will only suggest changes that will not increase or decrease the estimated cost or time required for performance under the Cooperative Agreement.

3. Prior Approval Requirements

Unless otherwise specified in the award, provisions of the applicable Federal cost principles and other Federal administrative requirements for prior agency approval apply only to the activities and expenditures specified blow.

- a. Written prior approval from the NSF Grants and Agreements Officer is required for:
 - 1. Significant Project Changes.
 - (a) Transfer of the project effort (see Article 8);
 - (b) Change in objectives or scope (see Article 8);
 - (c) Absence or change of PI (see Article 8);
 - (d) Change in the amount of cost sharing reflected on Line M of the award budget (see Article 27); or
 - 2. Rearrangements/Alterations aggregating \$25,000 or over (Construction) (see Article 11).
- b. Written prior approval from the NSF Program Officer is required for reallocation of funds provided for participant or trainee support (see Article 7).
- c. All requests for no cost extensions must be submitted in accordance with the procedures set forth in AAG Chapter I.D.3c(ii.)¹ Note that Grantee-Approved Extensions are not applicable to cooperative agreements.
- d. Requests for the prior approvals identified above (as well as other types of award related notifications stipulated in the NSF *Proposal & Award Policies & Procedures Guide*, Part II, *Award & Administration Guide [AAG] Exhibit II-1*) must be submitted electronically to NSF through use of the NSF FastLane system at https://www.fastlane.nsf.gov/.

4. Pre-Award Costs

- a. Awardees may approve pre-award costs incurred within the ninety calendar day period immediately preceding the effective date of the award. Requests for approval of pre-award costs for periods greater than 90 calendar days must be submitted electronically via the NSF FastLane system. Pre-award expenditures prior to funding of an increment within a continuing award are not subject to this limitation or approval requirement, but are subject to paragraph c below.
- b. Pre-award costs must be necessary for the effective and economical conduct of the project and the costs must be otherwise allowable in accordance with Article 12.

¹ Awardees are not authorized to extend an award that contains a zero balance.

c. Pre-award expenditures are made at the awardee's risk. Awardee authority to approve pre-award costs does not impose an obligation on NSF: (1) in the absence of appropriations; (2) if an award is not subsequently made; or (3) if an award is made for a lesser amount than the awardee expected.

5. Consultant Services

Costs of consultants, including those who are members of a particular profession or possess a special skill and who are not officers or employees of the performing organization, are allowable when reasonable in relation to the services rendered. While NSF appropriations no longer identify a limitation on payments to consultants under NSF awards, payments should be comparable to the normal or customary fees charged and received by the consultant for comparable services, especially on non-government contracts, grants, and cooperative agreements.

6. Equipment

a. Title to Equipment – Universities and Other Non-profit Organizations

Unless otherwise specified in the cooperative agreement, title to equipment purchased or fabricated with NSF award funds shall vest in the awardee upon acquisition. Such equipment is considered exempt property and shall be acquired and used in accordance with paragraph c. below.

b. Title to Equipment – Commercial Organizations

Unless otherwise specified in the award, title to equipment purchased or fabricated with NSF award funds by a small business or other commercial firm shall vest in the Government. Such equipment shall be acquired and used in accordance with paragraph c. below.

- c. Conditions for Acquisition and Use of Equipment
 - 1. Awardee Assurance. The awardee will assure that each purchase of equipment is:
 - (a) necessary for the research or activity supported by the grant;
 - (b) not otherwise reasonably available and accessible;
 - (c) of the type normally charged as a direct cost to sponsored agreements;
 - (d) acquired in accordance with organizational practice.
 - 2. General Purpose Equipment. Expenditures for general purpose equipment (see AAG Chapter V.B.2.d) are unallowable unless the equipment is primarily or exclusively used in the actual conduct of the research.
 - 3. Equipment Usage. The equipment will remain in use for the specific project for which it was obtained in accordance with 2 CFR § 215.34(c), unless the provision in 2 CFR § 215.34(e) applies.
 - 4. Equipment Sharing. The equipment must be shared on other projects or programs in accordance with 2 CFR § 215.34(d).

- 5. Property Management Standards. The awardee shall maintain a property management system that, at a minimum, meets the requirements of 2 CFR § 215.34(f). Because of increasing threats to information technology systems, the awardee is reminded that, under 2 CFR sections 215.34.(f). (4) and (5), "[a] control system shall be in effect to insure adequate safeguards to prevent loss, damage, or theft of the equipment" and "[a]dequate maintenance procedures shall be implemented to keep the equipment in good condition." This requirement imposes on the awardee a duty to adequately maintain and to insure adequate safeguards against the loss, damage, or theft of information technology equipment and systems purchased with NSF funds.
- 6. Inventory Requirements.
 - (a) In accordance with the requirements of 2 CFR § 215.33(a)(1), for all equipment exceeding \$5,000, the awardee must submit an annual inventory listing of government-owned property to the NSF Property Administrator, Division of Administrative Services (DAS). The listing should include all government-owned equipment purchased under the award or acquired by screening excess through the General Services Administration (GSA); and include the type of equipment, serial number, acquisition price, acquisition date and condition of the equipment. The inventory listing and a copy of the organization's audited financial statement should be submitted electronically to fsrpts@nsf.gov and must be received by DAS no later than September 1 each year. If financial statements are not available electronically, a paper copy should be submitted to:

National Science Foundation Division of Administrative Services Attention: NSF Property Administration 4201 Wilson Boulevard, Room 295 Arlington, VA 22230

- (b) A physical inventory of Government-owned equipment shall be conducted every two years pursuant to 2 CFR § 215.34(f). Upon expiration of the award, the awardee shall report the property to the DAS Property Administrator for further agency utilization.
- 7. Competition. The awardee shall not use equipment acquired with Federal funds to provide services to non-Federal outside organizations for a fee that is less than private companies charge for equivalent services, unless specifically authorized by statute in accordance with 2 CFR § 215.34(b).
- 8. Right to Transfer Title.
 - (a) NSF may identify items of equipment having an acquisition cost of \$5,000 or more where NSF reserves the right to transfer the title to the Federal Government or a third party named by the Federal Government at any time during the grant period.

(b) In cases where NSF elects to transfer the title, disposition instructions will be issued no later than 120 calendar days after the expiration date of the NSF-supported project for which it was acquired.

7. Participant Support Costs

- a. Participant support costs are direct costs for items such as stipends or subsistence allowances, travel allowances and registration fees paid to or on behalf of participants or trainees (but not employees) in connection with meetings, conferences, symposia or training projects. (See also AAG Chapter V.C.5.) Awardee organizations must account for participant support costs separately. Note: No indirect costs normally may be charged against participant support costs. (See AAG Chapter V.D.1b.)
- b. Funds provided for participant support may not be used by awardees for other categories of expense without the specific prior written approval of the cognizant NSF Program Officer. Such requests must be submitted electronically via the NSF FastLane system.

8. Significant Project Changes

The awardee is required to obtain prior written approval from the NSF Grants and Agreements Officer whenever there are significant changes in the project or its direction as stipulated below.

a. Transfer of the Project Effort

- 1. NSF authorization to contract or otherwise transfer a significant part of the research or substantive effort to another organization that has been disclosed in the proposal is not needed unless approval has been specifically withheld in the award.
- 2. If it becomes necessary to transfer, by contract or other means, a significant part of the research or substantive effort after an award has been made, notification of this intent should be submitted to NSF electronically via the NSF FastLane system and electronically signed by an Authorized Organizational Representative (AOR). At a minimum, the request shall include a clear description of the work to be performed and the basis for selection of the subawardee (except for collaborative/joint arrangements; see AAG Chapter II.B.3 for additional information.) NSF approval of such changes will be by an amendment to the award or electronic notice approved by the NSF Grants and Agreements Officer.
- The awardee remains responsible for maintaining the necessary documentation on all subawards and making it available to NSF upon request. The awardee shall include subaward activities in the annual and final project reports that are submitted to NSF.
- 4. Awardees shall ensure that the following articles, if applicable, flow down to all subawardees, or are appropriately addressed in the subaward instrument: Articles 5, 7, 9, 10, 11, 12, 13, 18, 19, 23, 24, 25, 26, 27, 28, 29, 32, 33, 34, 35, 36, 37, 38, 39, 40, 44, 45, 46, 47, 48 and 49. If the awardee issues subawards exceeding \$2,000 for construction, alteration or repair that are within the scope of the Acts found in 2 CFR Part 215 Appendix A, "Contract Provisions," the

appropriate clauses applicable to construction activities also will be included in applicable subawards.

b. Change in Objectives or Scope

A proposed change in the phenomenon or phenomena under study or the objectives of the project stated in the proposal or agreed modifications thereto should be communicated to NSF via use of the FastLane notification and request module https://www.fastlane.nsf.gov/. NSF approval of such changes will be by an amendment to the award approved by the NSF Grants and Agreements Officer.

c. Absence or Change of Principal Investigator

If a named Principal Investigator or Project Director plans to or becomes aware that he or she will: (1) devote substantially less effort to the work than anticipated in the approved proposal (defined as a reduction of 25% or more in time); (2) sever his or her connection with the awardee organization; or (3) be absent for a continuous period of three months or more, or otherwise relinquish active direction of the project, he or she shall advise both the NSF Program Officer and awardee's Authorized Organizational Representative via use of the NSF FastLane Notification and Request module. Action appropriate to the situation will be initiated in accordance with the guidelines described in AAG Chapter II.B.2.

9. Procurement Standards

Whether or not approval of a procurement is required under Article 8a, where appropriate, the awardee (including commercial organizations) is responsible for compliance with the procurement standards identified in 2 CFR §§ 215.40 through .48. The awardee also is responsible for ensuring that the appropriate NSF conditions from this award (including Article 28, Audit and Records) are made a part of any contract or other arrangement whose award amount exceeds the simplified acquisition threshold (currently \$100,000).

10. Travel

These terms and conditions posted October 28, 2011 were modified January 10, 2012 to remove the reference to GSA Federal Travel Regulations (41 CFR 300-304) in Article 10 paragraph a.1. The effective date of these terms and conditions remains February 1, 2012.

a. Allowability of Travel Expenses

- 1. Expenses for transportation, lodging, subsistence and related items incurred by project personnel and by outside consultants employed on the project (see AAG Chapter V.B.4) who are in travel status on business related to an NSF-supported project are allowable as prescribed in the governing OMB cost principles. The requirements for prior approval detailed in the governing OMB cost principles are waived.
- 2. Except as provided in the governing OMB cost principles, the difference between economy airfare and a higher-class airfare is unallowable. A train, bus or other surface carrier may be used in lieu of, or as a supplement to, air travel at the lowest first-class rate by the

transportation facility used. If such travel, however, could have been performed by air, the allowance will not normally exceed that for jet economy airfare.

b. Travel Support for Dependents of Key Project Personnel

Travel support for dependents of key project personnel is allowable only under the following conditions:

- 1. the individual is a key person who is essential to the project on a full-time basis;
- 2. the individual's residence away from home and in a foreign country is for a continuous period of six months or more and is essential to the effective performance of the project; and
- 3. the dependents' travel allowance is consistent with the policies of the organization administering the award.
- c. Use of U.S.-Flag Air Carriers
- 1. In accordance with the Fly America Act (49 USC 40118), any air transportation to, from, between, or within a country other than the U.S. of persons or property, the expense of which will be assisted by NSF funding, must be performed by or under a code-sharing arrangement with a U.S.-flag air carrier if service provided by such a carrier is available (see Comptroller General Decision B-240956, dated September 25, 1991). Tickets (or documentation for electronic tickets) must identify the U.S. flag air carrier's designator code and flight number.
- 2. For the purposes of this requirement, U.S.-flag air carrier service is considered available even though:
- (a) comparable or a different kind of service can be provided at less cost by a foreign-flag air carrier;
- (b) foreign-flag air carrier service is preferred by, or is more convenient for, NSF or traveler; or
- (c) service by a foreign-flag air carrier can be paid for in excess foreign currency.
- 3. The following rules apply unless their application would result in the first or last leg of travel from or to the U.S. being performed by a foreign-flag air carrier:
- (a) a U.S.-flag air carrier shall be used to destination or, in the absence of direct or through service, to the farthest interchange point on a usually traveled route.
- (b) if a U.S.-flag air carrier does not serve an origin or interchange point, a foreign-flag air carrier shall be used only to the nearest interchange point on a usually traveled route to connect with a U.S. flag air carrier.
- d. Use of Foreign-Flag Air Carriers

There are certain circumstances under which use of a foreign-flag air carrier is permissible. These circumstances are outlined below:

1. Airline "Open Skies" Agreements:

A foreign flag air carrier may be used if the transportation is provided under an air transportation agreement between the United States and a foreign government, which the Department of Transportation has determined meets the requirements of the Fly America Act. For information on "open skies" agreements in which the United States has entered, please refer to the General Services Administration's (GSA) website at http://www.gsa.gov/portal/content/103191.

Note on U.S./European Union Open Skies Agreement

In 2007, the U.S. entered into an "Open Skies" Agreement with the European Union ("EU"). This agreement was modified in June 2010. The current Agreement gives European Community airlines (airlines of Member States) the right to transport passengers and cargo on flights funded by the U.S. government, when the transportation is between: (1) any two points outside the United States; or (2) a point in the United States and any point outside the United States that the EU airline is authorized to serve under the "Open Skies" Agreement.

As of 2011, two significant changes have been made to the U.S./EU Open Skies Agreement. First, EU airlines are now granted the right to transport civilian agency-funded passengers who are NOT eligible to travel on GSA Airline City Pair Contract fares (e.g., grantees) between a point in the United States and a point outside the United States even if there is a GSA Airline City Pair Contract fare in effect between the origin and destination points. An individual, however, who is traveling on a route for which there is a City Pair Contract fare in effect, and who is eligible for such a fare (e.g., Federal employee), will be required to fly on a U.S. carrier, absent another applicable exception.

Second, under the amended Agreement, EU airlines are now authorized to transport passengers between points in the United States and points outside the EU if the EU airline is authorized to serve the route under the Agreement. This includes flights that originate, arrive, or stop in the EU. Prior to this change, EU airlines were limited to flying passengers between points in the U.S. and points in the EU.

- 2. *Involuntary Rerouting:* Travel on a foreign-flag carrier is permitted if a U.S.-flag air carrier involuntarily reroutes the traveler via a foreign-flag air carrier, notwithstanding the availability of alternative U.S.-flag air carrier service.
- 3. Travel To and From the U.S. on non-European Community Airlines

Use of a non-European Community foreign-flag air carrier is permissible if the airport abroad is:

- (a) the traveler's origin or destination airport, and use of U.S.-flag air carrier service would extend the time in a travel status by at least 24 hours more than travel by a foreign-flag air carrier; or
- (b) an interchange point, and use of U.S.-flag air carrier service would increase the number of aircraft changes the traveler must make outside of the U.S. by two or more, would require the traveler to wait four hours or more to make connections at that point, or would extend the time in a travel status by at least six hours more than travel by a foreign-flag air carrier.

4. Travel Between Points Outside the U.S. on non-European Community Airlines

Use of a non- European Community foreign-flag air carrier is permissible if:

- (a) travel by a foreign-flag air carrier would eliminate two or more aircraft changes en route;
- (b) travel by a U.S.-flag air carrier would require a connecting time of four hours or more at an overseas interchange point; or
- (c) the travel is not part of the trip to or from the U.S., and use of a U.S.-flag air carrier would extend the time in a travel status by at least six hours more than travel by a foreign-flag air carrier.
- 5. Short Distance Travel. For all short distance travel, regardless of origin and destination, use of a foreign-flag air carrier is permissible if the elapsed travel time on a scheduled flight from origin to destination airport by a foreign-flag air carrier is three hours or less and service by a U.S.-flag air carrier would double the travel time.

11. Rearrangements and Alterations

- a. Rearrangement and alteration costs that do not constitute construction (i.e., rearrangements and alterations aggregating less than \$25,000) to adapt space or utilities within a completed structure to accomplish the objectives of the award, are allowable and approved, provided the:
 - 1. building has a usable life consistent with project purposes and is architecturally suitable for conversion:
 - 2. rearrangements and alterations are essential to the project; and
 - 3. space involved will be occupied by the project.
- b. Rearrangements and alterations (construction) aggregating \$25,000 or over require the prior written approval of the NSF Grants and Agreements Officer.

12. Allowable Costs

- a. The allowability of costs and cost allocation methods for work performed under this award, up to the amount specified in the award, shall be determined in accordance with the applicable Federal cost principles in effect on the effective date of the award and the terms and conditions of the award.
- b. The Federal cost principles applicable to specific types of awardees are contained in:
 - 1. 2 CFR Part 220, Cost Principles for Educational Institutions (OMB Circular A-21);
 - 2. 2 CFR Part 225, Cost Principles for State, Local, and Indian Tribal Governments (OMB Circular A-87);
 - 3. 2 CFR Part 230, Cost Principles for Nonprofit Organizations (OMB Circular A-22);

- 4. Federal Acquisition Regulation 31.2 (48 CFR § 31.2) for commercial firms and those non-profit organizations specifically exempted from the provisions of OMB Circular A-122; and
- 5. 45 CFR Part 74, Appendix E, "Principles for Determining Costs Applicable to Research and Development Under Grants and Contracts with Hospitals," for hospitals.
- c. Certain prior approval requirements contained in these Federal cost principles have been modified by Article 3.

13. Indirect Costs

In accordance with 2 CFR 220 (OMB Circular A-21), Section G.7.a and unless otherwise specified in the award notice, awardees subject to A-21 are required to use the indirect cost (F&A) rate(s) approved by the cognizant Federal negotiating agency that are in effect at the time of the initial award, throughout the life of the award. Awardees not subject to A-21 are required to use the Federally-negotiated indirect cost rate(s) in effect at the time expenditures are incurred. Additional information on the charging of indirect costs to an NSF award is available in AAG Chapter V.D.

14. Payments

- a. Requests for payment must be made electronically via use of the FastLane Financial Functions, Cash Request process.² Awardees should request payments in amounts necessary to meet their current needs, pursuant to the guidelines contained in 31 CFR Part 205. Unless otherwise specified in the award, the awardee agrees to comply with all applicable Treasury regulations and National Science Foundation implementing and reporting procedures, which are outlined in AAG Chapter III.
- b. In accordance with 2 CFR § 215.22, where appropriate, awardees are required to maintain advances of Federal funds in interest-bearing accounts. For awardees not subject to the Cash Management Improvement Act (CMIA), (State agencies or instrumentalities) interest earned on Federal advances deposited in interest bearing accounts shall be remitted annually to:³

Department of Health and Human Services (DHHS)
Payment Management System
P.O. Box 6021
Rockville, MD 20852

c. Interest earned on NSF advances deposited in interest bearing accounts shall be remitted annually to the Department of Health and Human Services (DHHS). Interest amounts up to \$250 per year may be retained by the grantee for administrative expenses. The requirement to remit interest annually to DHHS does not apply to

² Awardees may contact the Division of Financial Management at (703) 292-8280 for information on using the FastLane Cash Request System.

³ In keeping with Electronic Funds Transfer rules [31 CFR Part 206], interest should be remitted to the DHHS Payment Management System through an electronic medium such as the FEDWIRE Deposit System. Awardees that do not have this capability should submit payment by check.

grantees subject to the Cash Management Improvement Act (CMIA), Subpart A - Rules Applicable to Federal Assistance Programs Included in a Treasury-State Agreement.

15. Cooperative Agreement Increments

Unless otherwise specified, each successive increment of a cooperative agreement will be funded at the level specified in the original award without a formal request from the awardee provided an annual project report has been received from the Principal Investigator(s) and accepted by the NSF Program Officer. Continuing funding is contingent on: (1) availability of funds; (2) satisfactory scientific/technical progress; and (3) fulfillment of any special conditions of the award (including the requisite cost sharing notification, when applicable (see Article 27)).

16. Project Reporting Requirements

a. Annual Project Reports

- 1. Submission Requirement. Annual project reports are required for both standard and continuing awards.⁴
- 2. Content of Annual Project Reports. Unless otherwise specified in the award, awardees are required to submit annual reports electronically via the project reporting system in FastLane. The NSF FastLane system may be accessed at https://www.fastlane.nsf.gov/fastlane.jsp. The content requirements for annual project reports are specified in the FastLane system and may be supplemented in the award document. The grantee shall include subaward activities in annual project reports that are submitted to NSF.
- 3. Timing of Annual Project Reports.

Unless otherwise specified in the award, annual project reports should be submitted at least 90 days prior to the end of the current budget period to allow adequate time for the Program Officer to review and approve the report. As reflected in the FastLane Project Report System, the report is considered due during the 90 day period. The report becomes overdue the day after the 90 day period ends. It should be noted that the final annual report serves as the project's final report and must be submitted in accordance with paragraph b below.

Failure to submit timely reports will delay processing of additional funding and administrative actions, including, but not limited to, no cost extensions. In the case of continuing grants, failure to submit timely reports may delay processing of funding increments.

b. Final Project Report

1. Submission Requirement. Unless otherwise specified in the award, the awardee shall submit a Final Project Report within 90 days following the expiration date of

⁴ Submission of an "interim" report via the NSF FastLane system does not constitute compliance with the annual reporting requirement.

the award. The report is considered due during the 90 day period. The report becomes overdue the day after the 90 day period ends.

- 2. Content of Final Project Report. Unless otherwise specified in the award, awardees shall submit final reports electronically via the project reporting system in FastLane. The NSF FastLane system may be accessed at: https://www.fastlane.nsf.gov/fastlane.jsp. The content requirements for final project reports are specified in the FastLane system and may be supplemented in the award document. The grantee shall include subaward activities in final project reports that are submitted to NSF.
- 3. Additional Requirements. The awardee also shall provide to the cognizant NSF Program Officer, within 90 days following the expiration date of the award, any unique reports or other end products specified in the award (e.g., special cost sharing reports), including report requirements set forth in any NSF brochure, guide, solicitation, etc. referenced in the award as being directly related to either the award or administration of the award.

c. Special Reports

The awardee shall provide the NSF with such other special reports as the NSF may reasonably require or, the awardee may deem appropriate. Insofar as possible, such reports shall be requested with sufficient advance notice to ensure care and thoroughness in their preparation by the awardee. Any addenda to the reports shall be sent to the cognizant NSF Program Officer.

d. Project Outcomes Report for the General Public

Unless otherwise specified in the award, the grantee shall submit a Project Outcomes Report for the General Public within 90 days following the expiration date of the award. The Project Outcomes Report must be submitted electronically via Research.gov, which may be accessed at http://www.research.gov/. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. For information about the content of the report, see the AAG Chapter II.E.3.

17. Expenditure Reports

All awardees shall submit a Federal Financial Report (FFR) by the 30th day following the end of each quarter (i.e., January 30, April 30, July 30, and October 30). All FFRs must be submitted electronically through Research.gov.

Instructions for using the FFR are available within Research.gov Help by selecting "Federal Financial Report (FFR)" or from the Grantee Cash Management Section staff at http://www.nsf.gov/bfa/dfm/cmeab.jsp. For more detailed instructions on using Research.gov, go to Research.gov Help and then select "Federal Financial Report (FFR)".

18. Information Collection

Information collection activities performed under this award are the responsibility of the awardee, and NSF support of the project does not constitute NSF approval of the survey design, questionnaire content or information collection procedures. The awardee shall not

represent to respondents that such information is being collected for or in association with the National Science Foundation or any other Government agency without the specific written approval of such information collection plan or device by the Foundation. This requirement, however, is not intended to preclude mention of NSF support of the project in response to an inquiry or acknowledgment of such support in any publication of this information.

19. Responsible Conduct of Research

Article 19 applies to new proposals submitted or due on or after January 4, 2010.

In accordance with Section 7009 of the America Creating Opportunities to Meaningfully Promote Excellence in Technology, Education, and Science (COMPETES) Act (42 U.S.C. 1862o–1) NSF requires that awardees must have a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research (RCR) to undergraduates, graduate students, and postdoctoral researchers who will be supported by NSF to conduct research. Training plans are subject to review, upon request.

Awardees must designate one or more persons to oversee compliance with the RCR training requirement. Awardees are responsible for verifying that undergraduate students, graduate students, and postdoctoral researchers supported by NSF to conduct research have received training in the responsible and ethical conduct of research, in accordance with the plan the awardee has put in place for their organization.

Awardees shall ensure that these RCR requirements flow down to all subrecipients, or are otherwise appropriately addressed in the subaward instrument.

20. Reporting Subawards and Executive Compensation

Article 20 applies to new cooperative agreements of \$25,000 or more awarded on or after October 1, 2010.

In accordance with the Office of Management and Budget guidance published in the Federal Register (FR) September 14, 2010 on *Requirements for Federal Funding Accountability and Transparency Act Implementation*, grantees must comply with the following award term, contained in 75 FR 22705:

- a. Reporting of first-tier subawards
- 1. Applicability. Unless you are exempt as provided in paragraph d. of this award term, you must report each action that obligates \$25,000 or more in Federal funds that does not include Recovery funds (as defined in section 1512(a)(2) of the American Recovery and Reinvestment Act of 2009, Pub. L. 111-5) for a subaward to an entity (see definitions in paragraph e of this award term).
- 2. Where and when to report
- (a) You must report each obligating action described in paragraph a.1.of this award term to www.fsrs.gov.

- (b) For subaward information, report no later than the end of the month following the month in which the obligation was made. (For example, if the obligation was made on November 7, 2010, the obligation must be reported by no later than December 31, 2010.)
- 3. What to report. You must report the information about each obligating action that the submission instructions posted at www.fsrs.gov specify.
- b. Reporting Total Compensation of Recipient Executives
- 1. Applicability and what to report. You must report total compensation for each of your five most highly compensated executives for the preceding completed fiscal year, if:
- (a) the total Federal funding authorized to date under this award is \$25,000 or more;
- (b) in the preceding fiscal year, you received—
- (i) 80 percent or more of your annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
- (ii) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and
- (c) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)
- 2. Where and when to report. You must report executive total compensation described in paragraph b.1.of this award term:
- (a) As part of your registration profile at www.ccr.gov.
- (b) By the end of the month following the month in which this award is made, and annually thereafter.
- c. Reporting of Total Compensation of Subrecipient Executives
- 1. Applicability and what to report. Unless you are exempt as provided in paragraph d. of this award term, for each first-tier subrecipient under this award, you shall report the names and total compensation of each of the subrecipient's five most highly compensated executives for the subrecipient's preceding completed fiscal year, if:
- (a) in the subrecipient's preceding fiscal year, the subrecipient received—
- (i) 80 percent or more of its annual gross revenues from Federal procurement contracts (and subcontracts) and Federal financial assistance subject to the Transparency Act, as defined at 2 CFR 170.320 (and subawards); and

- (ii) \$25,000,000 or more in annual gross revenues from Federal procurement contracts (and subcontracts), and Federal financial assistance subject to the Transparency Act (and subawards); and
- (b) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)
- 2. Where and when to report. You must report subrecipient executive total compensation described in paragraph c.1.of this award term:
- (a) To the recipient.
- (b) By the end of the month following the month during which you make the subaward. For example, if a subaward is obligated on any date during the month of October of a given year (i.e., between October 1 and 31), you must report any required compensation information of the subrecipient by November 30 of that year.
- d. Exemptions

If, in the previous tax year, you had gross income, from all sources, under \$300,000, you are exempt from the requirements to report:

- 1. subawards, and
- 2. the total compensation of the five most highly compensated executives of any subrecipient.
- e. Definitions

For purposes of this award term:

- 1. Entity means all of the following, as defined in 2 CFR part 25:
- (a) A Governmental organization, which is a State, local government, or Indian tribe;
- (b) A foreign public entity;
- (c) A domestic or foreign nonprofit organization;
- (d) A domestic or foreign for-profit organization;
- (e) A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.
- 2. <u>Executive</u> means officers, managing partners, or any other employees in management positions.

3. Subaward:

- (a) This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
- (b) The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. --.210 of the attachment to OMB Circular A- 133, "Audits of States, Local Governments, and Non-Profit Organizations").
- (c) A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.
- 4. <u>Subrecipient</u> means an entity that:
- (a) Receives a subaward from you (the recipient) under this award; and
- (b) Is accountable to you for the use of the Federal funds provided by the subaward.
- 5. <u>Total compensation</u> means the cash and noncash dollar value earned by the executive during the recipient's or subrecipient's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):
- (a) Salary and bonus.
- (b) Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Statement of Financial Accounting Standards No. 123 (Revised 2004) (FAS 123R), Shared Based Payments.
- (c) Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.
- (d) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.
- (e) Above-market earnings on deferred compensation which is not tax-qualified.
- (f) Other compensation, if the aggregate value of all such other compensation (e.g. severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds \$10,000.

21. Central Contractor Registration and Universal Identifier Requirements

Article 21 applies to new cooperative agreements awarded on or after October 1, 2010.

In accordance with the Office of Management and Budget guidance published in the Federal Register (FR) September 14, 2010 on *Financial Assistance Use of Universal Identifier and Central Contractor Registration*, grantees must comply with the following award term, contained in 75 FR 22706:

- a. Requirement for Central Contractor Registration (CCR). Unless you are exempted from this requirement under 2 CFR 25.110, you as the recipient must maintain the currency of your information in the CCR until you submit the final financial report required under this award or receive the final payment, whichever is later. This requires that you review and update the information at least annually after the initial registration, and more frequently if required by changes in your information or another award term.
- b. Requirement for Data Universal Numbering System (DUNS) numbers. If you are authorized to make subawards under this award, you:
- 1. Must notify potential subrecipients that no entity (see definition in paragraph c. of this award term) may receive a subaward from you unless the entity has provided its DUNS number to you.
- 2. May not make a subaward to an entity unless the entity has provided its DUNS number to you.
- c. *Definitions*. For purposes of this award term:
- 1. <u>Central Contractor Registration (CCR)</u> means the Federal repository into which an entity must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the CCR Internet site (currently at http://www.ccr.gov).
- 2. <u>Data Universal Numbering System (DUNS) number</u> means the nine-digit number established and assigned by Dun and Bradstreet, Inc. (D&B) to uniquely identify business entities. A DUNS number may be obtained from D&B by telephone (currently 866-705-5711) or the Internet (currently at http://fedgov.dnb.com/webform).
- 3. <u>Entity</u>, as it is used in this award term, means all of the following, as defined at 2 CFR part 25, subpart C:
- (a) A Governmental organization, which is a State, local government, or Indian tribe;
- (b) A foreign public entity;
- (c) A domestic or foreign nonprofit organization;
- (d) A domestic or foreign for-profit organization; and
- (e) A Federal agency, but only as a subrecipient under an award or subaward to a non-Federal entity.

4. Subaward:

- (a) This term means a legal instrument to provide support for the performance of any portion of the substantive project or program for which you received this award and that you as the recipient award to an eligible subrecipient.
- (b) The term does not include your procurement of property and services needed to carry out the project or program (for further explanation, see Sec. --.210 of the attachment to OMB Circular A-133, "Audits of States, Local Governments, and Non-Profit Organizations").
- (c) A subaward may be provided through any legal agreement, including an agreement that you consider a contract.
- 5. <u>Subrecipient</u> means an entity that:
- (a) Receives a subaward from you under this award; and
- (b) Is accountable to you for the use of the Federal funds provided by the subaward.

22. Academic Technology Transfer and Commercialization of University Research

- a. Any institution of higher education (as such term is defined in section 101(A) of the Higher Education Act of 1965 (20 U.S.C. 1001(a)) that receives National Science Foundation research support (i.e., any grant or cooperative agreement awarded by NSF) and has received at least \$25,000,000 in total Federal research grants in the most recently completed Federal fiscal year shall keep, maintain, and report annually to the National Science Foundation the universal resource locator (URL) for a public website that contains information concerning its general approach to and mechanisms for transfer of technology and the commercialization of research results, including:
- 1. contact information for individuals and university offices responsible for technology transfer and commercialization;
- 2. information for both university researchers and industry on the institution's technology licensing and commercialization strategies;
- 3. success stories, statistics, and examples of how the university supports commercialization of research results:
- 4. technologies available for licensing by the university where appropriate; and
- 5. any other information deemed by the institution to be helpful to companies with the potential to commercialize university inventions.

For purposes of determining whether an institution meets the threshold for this requirement, both the NSF research support and the Federal research grants must have been active at some point during the most recently completed Federal fiscal year.

The institution's URL containing the information required in section a. must be electronically submitted to the following email alias: ACA520@nsf.gov. The URLs will be available to the public on the Science, Engineering and Education (SEE) Innovation section of Research.gov/acasection520.

b. Trade Secret Information - Notwithstanding section a., an institution shall not be required to reveal confidential, trade secret, or proprietary information on its website.

23. Copyrightable Material

a. Definition

Subject writing means any material that:

- 1. is or may be copyrightable under Title 17 of the U.S.C.; and
- 2. is produced by the awardee or its employees in the performance of work under this award.

Subject writings include such items as reports, books, journal articles, software, databases, sound recordings, videotapes, and videodiscs.

b. Copyright Ownership, Government License

Except as otherwise specified in the award or by this paragraph, the awardee may own or permit others to own copyright in all subject writings. The awardee agrees that if it or anyone else does own copyright in a subject writing, the Federal government will have a nonexclusive, nontransferable, irrevocable, royalty-free license to exercise or have exercised for or on behalf of the U.S. throughout the world all the exclusive rights provided by copyright. Such license, however, will not include the right to sell copies or phonorecords of the copyrighted works to the public.

c. Awards Affected by International Agreements

If the award indicates it is subject to an identified international agreement or treaty, NSF can direct the awardee to convey to any foreign participant or otherwise dispose of such rights to subject writings as are required to comply with that agreement or treaty.

d. Awardee Action to Protect Government Interests

The awardee agrees to acquire, through written agreement or an employment relationship, the ability to comply with the requirements of the preceding paragraphs and, in particular, to acquire the ability to convey rights in a subject writing to a foreign participant if directed by NSF under the previous paragraph. The awardee further agrees that any transfer of copyright or any other rights to a subject writing, by it or anyone whom it has allowed to own such rights, will be made subject to the requirements of this article.

24. Program Income

a. Definition

Program income means gross income earned by the awardee that is directly generated by a supported activity or earned as a result of the award. Program income includes, but is not limited to, income from fees for services performed, the use or rental of real or personal property acquired under the award, the sale of commodities or items fabricated under the award, license fees and royalties on patents and copyrights, and interest on loans made with award funds. Interest earned on advances of Federal funds is not program income. Program income does not include the receipt of principal on loans, rebates, credits, discounts, etc., or interest earned on any of them.

b. Standard Treatment

Unless otherwise specified in the award, program income (except as noted in (1) below) received or accrued to the awardee during the period of this award shall be retained and added to the funds committed to the project by NSF and used to further project objectives. Also, unless otherwise specified, the awardee shall have no obligation to NSF with respect to: (1) license fees and royalties for copyrighted material, patents, patent applications, trademarks, and inventions received or accrued at any time; or (2) program income received beyond the period of this award.

c. Records Retention

The awardee is required to retain appropriate financial and other records relating to project income earned during the award period and for three years beyond the end of the award period.

25. Publications

a. Acknowledgment of Support

The awardee is responsible for assuring that an acknowledgment of NSF support:

1. is made in any publication (including World Wide Web sites) of any material based on or developed under this project, in the following terms:

"This material is based upon work supported by the National Science Foundation under Grant No. (NSF grant number)."

2. is orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines.

b. News Releases

The awardee is strongly encouraged to consult with and notify the NSF Program Officer or his/her designee prior to issuing news releases concerning NSF-supported activities.

c. Disclaimer

The awardee is responsible for assuring that every publication of material (including World Wide Web pages) based on or developed under this award, except scientific articles or papers appearing in scientific, technical or professional journals, contains the following disclaimer:

"Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation."

d. Copies for NSF

The awardee is responsible for assuring that the cognizant NSF Program Officer is provided access to, either electronically or in paper form, a copy of every publication of material based on or developed under this award, clearly labeled with the award number and other appropriate identifying information, promptly after publication.

e. Metric System

All reports and publications resulting from this NSF award are encouraged to use the metric system of weights and measures.

26. Patent Rights⁵

Unless otherwise provided in the award, if this award is for experimental, developmental, or research work, the following clause (implementing the Bayh-Dole Act, [35 U.S.C. § 200 et seq.]) shall apply. The awardee shall include this clause in all subawards for experimental, developmental, or research activities.

a. Definitions

- 1. INVENTION means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the USC, to any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. § 2321 et seq.).
- 2. SUBJECT INVENTION means any invention of the awardee conceived or first actually reduced to practice in the performance of work under this award, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d)) must also occur during the period of performance.
- 3. PRACTICAL APPLICATION means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to

⁵ The June, 2011 Supreme Court decision in Stanford vs. Roche has implications for the Foundation's intangible property policy. Article 26 remains unchanged at this time, as the Foundation assesses how best to implement revisions to this term and condition.

establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.

- 4. MADE when used in relation to any invention means the conception or first actual reduction to practice of such invention.
- 5. NON-PROFIT ORGANIZATION means a domestic university or other institution of higher education or an organization of the type described in Section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. § 501(c)) and exempt from taxation under Section 501(a) of the Internal Revenue Code (26 U.S.C. § 501(a)) or any domestic non-profit scientific or educational organization qualified under a State non-profit organization statute.

b. Allocation of Principal Rights

The awardee may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this Patent Rights clause and 35 U.S.C. Part 203. With respect to any subject invention in which the awardee retains title, the Federal Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the U.S. the subject invention throughout the world. If the award indicates it is subject to an identified international agreement or treaty, the National Science Foundation (NSF) also has the right to direct the awardee to convey to any foreign participant such patent rights to subject inventions as are required to comply with that agreement or treaty.

- c. Invention Disclosure, Election of Title and Filing of Patent Applications by Awardee
 - 1. The awardee will disclose each subject invention to NSF within two months after the inventor discloses it in writing to awardee personnel responsible for the administration of patent matters. The disclosure to NSF shall be in the form of a written report and shall identify the award under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding of the nature, purpose, operation, and, to the extent known, the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to NSF, the awardee will promptly notify NSF of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the awardee.
 - 2. The awardee will elect in writing whether or not to retain title to any such invention by notifying NSF within two years of disclosure to NSF. However, in any case where publication, on sale, or public use has initiated the one-year statutory period wherein valid patent protection can still be obtained in the U.S., the period for election of title may be shortened by NSF to a date that is no more than 60 days prior to the end of the statutory period.
 - 3. The awardee will file its initial patent application on an invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of

any statutory period wherein valid patent protection can be obtained in the U.S. after a publication, on sale, or public use. The awardee will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application, or six months from the date when permission is awarded by the Commissioner of Patents and Trademarks to file foreign patent applications when such filing has been prohibited by a Secrecy Order.

- 4. Requests for extension of the time for disclosure to NSF, election, and filing under subparagraphs 1., 2., and 3. may, at the discretion of NSF, be awarded.
- d. Conditions When the Government May Obtain Title

The awardee will convey to NSF, upon written request, title to any subject invention:

- if the awardee fails to disclose or elect the subject invention within the times specified in paragraph c. above, or elects not to retain title; provided that NSF may only request title within 60 days after learning of the failure of the awardee to disclose or elect within the specified times;
- 2. in those countries in which the awardee fails to file patent applications within the times specified in paragraph c. above, but prior to its receipt of the written request of NSF, the awardee shall continue to retain title in that country; or
- 3. in any country in which the awardee decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

e. Minimum Rights to Awardee

- 1. The awardee will retain a non-exclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the awardee fails to disclose the subject invention within the times specified in paragraph c. above. The awardee's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the awardee is a party and includes the right to award sublicenses of the same scope to the extent the awardee was legally obligated to do so at the time the award was made. The license is transferable only with the approval of NSF except when transferred to the successor of that part of the awardee's business to which the invention pertains.
- 2. The awardee's domestic license may be revoked or modified by NSF to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR Part 404. This license will not be revoked in that field of use or the geographical areas in which the awardee has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at discretion of NSF to the extent the awardee, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

3. Before revocation or modification of the license, NSF will furnish the awardee a written notice of its intention to revoke or modify the license, and the awardee will be allowed thirty days (or such other time as may be authorized by NSF for good cause shown by the awardee) after the notice to show cause why the license should not be revoked or modified. The awardee has the right to appeal, in accordance with applicable regulations in 37 CFR Part 404 concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

f. Awardee Action to Protect Government's Interest

- 1. The awardee agrees to execute or to have executed and promptly deliver to NSF all instruments necessary to: (i) establish or confirm the rights the Government has throughout the world in those subject inventions for which the awardee retains title; and (ii) convey title to NSF when requested under paragraph d. above, and to enable the Government to obtain patent protection throughout the world in that subject invention.
- 2. The awardee agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the awardee each subject invention made under this award in order that the awardee can comply with the disclosure provisions of paragraph c. above, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information requested by paragraph c.1. above. The awardee shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.
- 3. The awardee will notify NSF of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.
- 4. The awardee agrees to include, within the specification of any U.S. patent application and any patent issuing thereon covering a subject invention, the following statement:

"This invention was made with Government support under (identify the award) awarded by the National Science Foundation. The Government has certain rights in this invention."

5. The awardee or its representative will complete, execute and forward to NSF a confirmation of a License to the U.S. Government and the page of a United States patent application that contains the Federal support clause within two months of filing any domestic or foreign patent application.

g. Subcontracts

- 1. The awardee will include this Patent Rights clause, suitably modified to identify the parties, in all subcontracts, regardless of tier, for experimental, developmental or research work. The subcontractor will retain all rights provided for the awardee in this Patent Rights clause, and the awardee will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractors' subject inventions.
- 2. In the case of subcontracts, at any tier, when the prime award by NSF was a contract (but not a cooperative agreement), NSF, subcontractor, and contractor agree that the mutual obligations of the parties created by this Patent Rights clause constitute a contract between the subcontractor and the Foundation with respect to those matters covered by this Patent Rights clause.

h. Reporting on Utilization of Subject Inventions

The awardee agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the awardee or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the awardee and such other data and information as NSF may reasonably specify. The awardee also agrees to provide additional reports in connection with any march-in proceeding undertaken by NSF in accordance with paragraph j. of this Patent Rights clause. As required by 35 U.S.C. § 202(c)(5), NSF agrees it will not disclose such information to persons outside the Government without the permission of the awardee.

i. Preference for United States Industry

Notwithstanding any other provision of this Patent Rights clause, the awardee agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the U.S. unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the U.S. However, in individual cases, the requirement for such an agreement may be waived by NSF upon a showing by the awardee or its assignee that reasonable but unsuccessful efforts have been made to award licenses on similar terms to potential licensees that would be likely to manufacture substantially in the U.S. or that under the circumstances domestic manufacture is not commercially feasible.

j. March-in Rights

The awardee agrees that with respect to any subject invention in which it has acquired title, NSF has the right in accordance with procedures at 37 CFR § 401.6 and NSF regulations at 45 CFR § 650.13 to require the awardee, an assignee or exclusive licensee of a subject invention to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances and if the awardee, assignee, or exclusive licensee

refuses such a request, NSF has the right to grant such a license itself if NSF determines that:

- 1. such action is necessary because the awardee or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;
- 2. such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the awardee, assignee, or their licensees;
- such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the awardee, assignee, or licensee; or
- 4. such action is necessary because the agreement required by paragraph i. of this Patent Rights clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the U.S. is in breach of such agreement.
- k. Special Provisions for Awards with Non-profit Organizations

If the awardee is a nonprofit organization, it agrees that:

- 1. rights to a subject invention in the U.S. may not be assigned without the approval of NSF, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the awardee;
- the awardee will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when NSF deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. § 202(e) and 37 CFR § 401.10;
- 3. the balance of any royalties or income earned by the awardee with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific or engineering research or education; and
- 4. it will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms and that it will give preference to a small business firm if the awardee determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided that the awardee is also satisfied that the small business firm has the capability and resources to carry out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the awardee. However, the awardee agrees that the Secretary of Commerce may review the awardee's licensing program and decisions regarding small business applicants, and the awardee will negotiate changes to its licensing policies, procedures or practices with the Secretary when the Secretary's review discloses that the

awardee could take reasonable steps to implement more effectively the requirements of this paragraph k.4.

I. Communications

All communications required by this Patents Rights clause must be submitted through the iEdison Invention Information Management System maintained by the National Institutes of Health unless prior permission for another form of submission is obtained from the Patent Assistant at patents@nsf.gov or at Office of the General Counsel, National Science Foundation, 4201 Wilson Boulevard, Arlington, VA 22230.

27. Cost Sharing and Cost Sharing Records

a. General

- The awardee must cost share in accordance with any amount specified on Line
 M of the award budget. Cost sharing participation in other projects may not be
 counted towards meeting the specific cost sharing requirements of the award,
 and must come from nonfederal sources.
- 2. Should the awardee become aware that it may be unable to provide the cost sharing of at least the amount identified on Line M of the NSF award budget, it must: a) immediately provide written notification to the Grants Officer of the situation; and b) indicate steps it plans to take to secure replacement cost sharing; or c) indicate the plans it has to either continue or phase out the project in the absence of the approved level of cost sharing.
- 3. Should NSF agree to the organization's proposed plans, the NSF Grants Officer will modify the award accordingly, including, if appropriate, reducing the amount of NSF support. Should the organization's plans be unacceptable to NSF, the award may be subject to termination. NSF modifications to proposed cost sharing revisions are made on a case-by-case basis.
- 4. Failure by the organization to notify NSF, in accordance with paragraph 2. above, may result in the disallowance of some or all of the costs charged to the award; the subsequent recovery by NSF of some or all of the NSF funds provided under the award; possible termination of the award; and may constitute a violation of the terms of the award so serious as to provide grounds for subsequent suspension or debarment.

b. Cost Sharing Records

The awardee must maintain records of all project costs that are claimed by the awardee as cost sharing as well as records of costs to be paid by the Government. Such records are subject to audit. Acceptable forms of cost sharing contributions are those that meet the criteria identified in 2 CFR § 215.23. Unless otherwise specified in the award, approval is given to include unrecovered indirect costs (also known as facilities and administrative costs for colleges and universities) as part of cost sharing or matching contributions. If the awardee's cost participation includes in-kind contributions, the basis for determining the valuation for volunteer services and donated property must be documented.

c. Cost Sharing Reports

Unless otherwise required by the award or requested by NSF, the actual cost participation by the awardee, while subject to documentation and audit, need not be reported to NSF. In cases, however, where the cost-sharing amount reflected on Line M of the cumulative award budget is \$500,000 or more, the amount of cost sharing must be documented (on an annual and final basis) and certified by the Authorized Organizational Representative via use of the Notification and Request Module in the NSF FastLane System. Such notifications must be submitted within 90 days:

- 1. prior to the end of the current budget period to meet the annual notification requirement; and
- 2. following the expiration of the award to meet the final notification requirement.

The cost share notification is considered due during the 90 day period. The notification becomes overdue the day after the 90 day period ends.

28. Audit and Records

- a. Financial records, supporting documents, statistical records, and other records pertinent to this award shall be retained by the awardee for a period of three years from submission of the final project and expenditure reports specified in Articles 16 and 17.
 - 1. Records that relate to audits, appeals, litigation or the settlement of claims arising out of the performance of the project shall be retained until such audits, appeals, litigation or claims have been disposed of.
 - 2. Records relating to projects subject to special project income provisions shall be retained until three years from the end of the awardee's fiscal year in which the award requirement for reporting income expires.
- b. Unless court action or audit proceedings have been initiated, the awardee may substitute microfilm copies of original records.
- c. The Director of the National Science Foundation and the Comptroller General of the U.S., or any of their duly authorized representatives, shall have access to any pertinent books, documents, papers and records of the awardee organization and of the performing organization, if different, to make audits, examinations, excerpts and

transcripts. Further, any negotiated contract in excess of the simplified acquisition threshold (currently \$100,000) made by the awardee shall include a provision to the effect that the awardee, the Director of the National Science Foundation, the Comptroller General of the U.S., or any of their duly authorized representatives, shall have access to pertinent records for similar purposes.

- d. In order to avoid duplicate record keeping, NSF may make special arrangements with the awardee to retain any records that are needed for joint use. NSF may request transfer to its custody of records not needed by the awardee when it determines that the records possess long-term retention value. When the records are transferred to, or maintained by NSF, the three-year retention requirement is not applicable to the awardee. In the rare event that this provision is exercised, NSF will negotiate a mutually agreeable arrangement with the awardee regarding reimbursement of costs.
- e. Awardees that are States, Local Governments or Non-Profit Organizations, shall arrange for the conduct of audits as required by OMB Circular A-133 "Audits of States, Local Governments, and Non-Profit Organizations" (including colleges and universities.) They shall provide copies of the reports of these audits to the cognizant Federal audit agency. Any Federal Audit of this project deemed necessary by NSF shall build upon the results of such audit(s).

29. Site Visits

NSF, through authorized representatives, has the right, at all reasonable times, to make site visits to review project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by NSF on the premises of the awardee or a contractor under an award, the awardee shall provide and shall require its contractors to provide all reasonable facilities and assistance for the safety and convenience of the Government representatives in the performance of their duties. All site visits and evaluations shall be performed in such a manner that will not unduly delay the work.

30. Suspension or Termination

- a. Any suspension or termination action taken by NSF must be issued by an NSF Grants and Agreements Officer and will be in accordance with this article and AAG Chapter VII.A.
- b. The award may be suspended or terminated in whole or in part in any of the following situations by:
 - 1. NSF when the awardee has materially failed to comply with the terms and conditions of the award;
 - NSF when the Foundation has other reasonable cause;
 - 3. NSF when ordered by the Deputy Director under NSF's Regulation on Research Misconduct [45 CFR Part 689];
 - 4. NSF and the awardee by mutual agreement (if NSF and the awardee cannot reach an agreement, NSF reserves the right to unilaterally terminate the award); or
 - 5. the awardee on written notice to NSF setting forth the reasons for such action, the effective date, and, in the case of partial termination, the portion to be terminated or suspended (with the understanding that if NSF determines that the

unterminated portion will not accomplish the purposes of the award, it may suspend or terminate the entire award).

- c. Normally, action by NSF to suspend or terminate an award will be taken only after the awardee has been informed by NSF of any deficiency on its part and given an opportunity to correct it; but NSF may immediately suspend or terminate the award without notice when it believes such action is reasonable to protect the interests of the Government.
- d. No costs incurred during a suspension period or after the effective date of a termination will be allowable, except those costs which, in the opinion of NSF, the awardee could not reasonably avoid or eliminate, or which were otherwise authorized by the suspension or termination notice, provided such costs would otherwise be allowable under the terms of the award and the appropriate Federal cost principles.
- e. Within 30 days of the termination date, the awardee will furnish a summary of progress under the award and an itemized accounting of costs incurred prior to the termination date or pursuant to d, above. Final allowable costs under a termination settlement shall be in accordance with the terms of the award, including this article, and the appropriate Federal cost principles, giving due consideration to the progress under the award. In no event will the total of NSF payments under a terminated award exceed the award amount, or the NSF pro rata share of the total project costs when cost sharing was anticipated, whichever is less.
- f. A notice of termination other than by mutual agreement and/or the final settlement amount may be subject to review pursuant to Article 31.

31. Termination Review Procedure

- a. A request for review of a notice of termination or settlement should be addressed to the Director, Division of Grants and Agreements, National Science Foundation, 4201 Wilson Blvd., Arlington, VA, 22230. It must be postmarked no later than 30 days after the date of the letter notifying the awardee of the termination or settlement.
- b. The request for review must contain a full statement of the awardee's position and the pertinent facts and reasons in support of such position.
- c. Review of a notice of termination or settlement will be conducted in accordance with AAG Chapter VII.A.4.
- d. Pending resolution of the request for review, the notice of termination shall remain in effect.

32. Nondiscrimination

a. The award is subject to the provisions of Title VI of the Civil Rights Act of 1964 [42 U.S.C. § 2000d], Title IX of the Education Amendments of 1972 [20 USC §§ 1681 et seq.], the Rehabilitation Act of 1973 [29 U.S.C. § 794], the Age Discrimination Act of 1975 [42 U.S.C. §§ 6101 et seq], and all regulations and policies issued by NSF pursuant to these statutes. Specifically, in accordance with these statutes, regulations, and policies, no person on the basis of race, color, national origin, sex, disability, or age

shall be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under the award.

b. By electronically signing a proposal, the Authorized Organizational Representative is providing the requisite Certification of Compliance with National Science Foundation Nondiscrimination Regulations and Policies. This Nondiscrimination Certification sets forth the nondiscrimination obligations with which all awardees must comply. These obligations also apply to subrecipients, subawardees, and subcontractors under the award. The awardee, therefore, shall obtain the NSF Nondiscrimination Certification from each organization that applies to be or serves as a subrecipient, subgrantee or subcontractor under the award (for other than the provision of commercially available supplies, materials, equipment or general support services) prior to entering into the subaward arrangement.

33. Reporting Classifiable Information

NSF awards are intended for unclassified, publicly releasable research. The awardee will not be granted access to classified information. NSF does not expect that the results of the research project will involve classified information.

If, however, in conducting the activities supported under an award, the PI is concerned that any of the research results involve potentially classifiable information that may warrant Government restrictions on the dissemination of the results, the PI should promptly notify the cognizant NSF Program Officer.

34. Animal Welfare

- a. Any awardee performing research on vertebrate animals, shall comply with the Animal Welfare Act [7 U.S.C. § 2131 et seq.] and the regulations promulgated thereunder by the Secretary of Agriculture [9 CFR §§ 1.1-4.11] pertaining to the humane care, handling, and treatment of vertebrate animals held or used for research, teaching or other activities supported by Federal awards. The awardee is expected to ensure that the guidelines described in the National Academy of Science (NAS) Publication, "Guide for the Care and Use of Laboratory Animals" (1996) are followed and to comply with the Public Health Service Policy and Government Principles Regarding the Care and Use of Animals (included as Appendix D to the NAS Guide).
- b. In the event the awardee's multi-project Assurance is cancelled or lapses, the awardee must immediately notify the cognizant Grants and Agreements Officer identified in the award.

NOTE--The awardee may request registration of its facility and a current listing of licensed dealers from the Regional Office of the Animal and Plant Health Inspection Service (APHIS), United States Department of Agriculture, for the region in which its research facility is located. The location of the nearest APHIS Regional Office, as well as information concerning this and other APHIS activities, may be obtained at http://www.aphis.usda.gov/.

⁶ The complete text of the Nondiscrimination Certification is available electronically in the *Grant Proposal Guide*, Chapter II, Exhibit II-6.

⁷ In addition to vertebrate animals covered by the Animal Welfare Act, the requirements specified in this Article also are extended to rats, birds and mice.

35. Research Involving Recombinant DNA Molecules

If this award supports research involving recombinant DNA molecules, the awardee agrees to comply with the requirements of AAG Chapter VI.B.2.

36. Clean Air and Water

(Applicable only if the award exceeds \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act [42 U.S.C. § 7413(c)(1)] or the Clean Water Act [33 U.S.C. § 1319(c)] and is listed by the Environmental Protection Agency (EPA), or the award is not otherwise exempt.)

The awardee agrees as follows:

- a. To comply with all the requirements of Section 114 of the Clean Air Act [42 U.S.C. § 7414] and Section 308 of the Clean Water Act [33 U.S.C. § 1318], respectively, relating to inspection, monitoring, entry, reports and information, as well as other requirements specified in Section 114 and Section 308 of the Clean Air Act and the Clean Water Act, respectively, and all regulations and guidelines issued thereunder before the award of the cooperative agreement.
- b. That no portion of the work required by the award will be performed in a facility listed on the Environmental Protection Agency List of Violating Facilities on the date that the award was awarded unless and until EPA eliminates the name of such facility or facilities from such listing.
- c. To use its best efforts to comply with clean air standards and clean water standards at the facility in which the award is being performed.
- d. To insert the substance of the provisions of this article into any nonexempt subcontract.

37. Human Research Subjects

The awardee is responsible for the protection of the rights and welfare of any human subjects involved in research, development and related activities supported by this award. The awardee agrees to comply with the NSF regulation, entitled, "*Protection of Human Subjects* [45 CFR Part 690]."

38. Investigator Financial Disclosure Policy

If the awardee employs more than 50 persons, the awardee shall maintain an appropriate written and enforced policy on conflict of interest consistent with the provisions of AAG Chapter IV.A.

39. State Sales and Use Taxes

Awardees are reminded that each set of cost principles cited in Article 12b limits the allowability of taxes to those the organization is required to pay. Awardees must avail themselves of any tax exemptions for which any activities supported by Federal funds may qualify, including any applicable exemptions from state or local sales and use taxes on the purchase of goods and services made with NSF award funds.

40. Debarment and Suspension

Recipients shall fully comply with the requirements stipulated in Subpart C of 2 CFR Part 180, entitled "Responsibilities of Participants Regarding Transactions Doing Business With Other Persons." The recipient is responsible for ensuring that any lower tier covered transaction, as described in Subpart B of 2 CFR Part 180, entitled "Covered Transactions," includes a term or condition requiring compliance with Subpart C. The recipient also is responsible for further requiring the inclusion of a similar term or condition in any subsequent lower tier covered transaction. The recipient acknowledges that failing to disclose the information required under 2 CFR § 180.335 may result in the termination of the award, or pursuance of other available remedies, including suspension and debarment. Recipients may access the Excluded Parties List System at https://www.epls.gov.

41. Changes—Limitation of Funds

Either party to this agreement may request changes or additions to the agreement. Any such changes must be agreed to by both parties, set forth in writing, and approved by the NSF Grants and Agreements Officer. No changes shall be considered as an authorization to the awardee to exceed the amount of funds awarded under this agreement. This agreement, however, may be formally amended to modify the amount of funds awarded.

42. Resolution of Conflicting Conditions

Should there be any inconsistency between any special conditions contained in the award and these Cooperative Agreement General Conditions, the special conditions in the award shall control. Should there be any inconsistency between these Cooperative Agreement General Conditions, any special conditions contained in the award, and any NSF guides, brochures, etc., cited or included by reference in the award, the matter should be referred to the NSF Grants and Agreements Officer for guidance.

43. Resolution of Disagreements and Disputes

Disagreements and disputes of fact arising under this cooperative agreement that are not resolved through informal discussions will be subject to the written decision of the NSF Grants and Agreements Officer. This decision will be final unless, within 30 days of receipt of the decision, the awardee makes a written request for review to the Director, Division of Grants and Agreements, NSF. The request for review must contain a full statement of the awardee's position and the pertinent facts and reasons in support of the position. Review will follow the procedures stipulated under AAG Chapter VII.B.3.

Other Considerations

44. Liability

NSF cannot assume any liability for accidents, illnesses, injuries, or claims arising out of, or related to, any activities supported by an award or for unauthorized use of patented or copyrighted materials. The awardee organization is advised to take such steps as may be deemed necessary to insure or protect itself, its employees and its property.

45. Sharing of Findings, Data, and Other Research Products

- a. NSF expects significant findings from research and education activities it supports to be promptly submitted for publication, with authorship that accurately reflects the contributions of those involved. It expects investigators to share with other researchers, at no more than incremental cost and within a reasonable time, the data, samples, physical collections and other supporting materials created or gathered in the course of the work. It also encourages awardees to share software and inventions or otherwise act to make the innovations they embody widely useful and usable.
- b. Adjustments and, where essential, exceptions may be allowed to safeguard the rights of individuals and subjects, the validity of results, or the integrity of collections or to accommodate legitimate interests of investigators.

46. Partnerships with Foreign Collaborators

- a. The awardee shall provide written notification to the cognizant NSF Program Officer prior to entering into formal arrangements with foreign collaborators. In the notification, the awardee should specify: the projects and individuals involved; the purpose of the cooperative program; the proposed duration; location; and, the magnitude of the proposed activity.
- b. This provision is not intended to require notifications to the NSF of the routine use of awardee services and facilities by foreign investigators or foreign students, or the routine use of foreign facilities by project staff in accordance with the awardee's standard policies and procedures.

47. Government Permits and Activities Abroad

- a. For awards that include activities requiring permits from appropriate Federal, state, or local government authorities, the awardee should obtain any required permits prior to undertaking the proposed activities.
- b. The awardee must comply with the laws and regulations of any foreign country in which research is to be conducted. Areas of potential concern include: (1) requirements for advance approval to conduct research or surveys; (2) special arrangements for the participation of foreign scientists and engineers; and (3) special visas for persons engaged in research or studies. NSF does not assume responsibility for awardee compliance with the laws and regulations of the country in which the work is to be conducted.
- c. The awardee also should assure that activities carried on outside the U.S. are coordinated as necessary with appropriate U.S. and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.

48. Sense of the Congress on Use of Funds

Recent Acts making appropriations to NSF provide "It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available in

this Act should be American-made" and require the Foundation to notify awardees of that statement.

49. Increasing Seat Belt Use in the United States

In accordance with Executive Order 13043, *Increasing Seat Belt Use in the United States*, dated April 16, 1997, "grantees are encouraged to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented, or personally owned vehicles."