



**NATIONAL SCIENCE FOUNDATION (NSF)
Research Terms & Conditions
Agency Specific Requirements
Effective May 14, 2018**

National Science Foundation website address: <<http://www.nsf.gov>>
Research Term & Conditions website address:
<<http://www.nsf.gov/awards/managing/rtc.jsp>>

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Article 1. Awards Covered by the Research Terms & Conditions

Effective May 14, 2018, grants made to institutions of higher education and non-profit organizations will incorporate by reference the *Research Terms & Conditions* dated March 14, 2017 and the *NSF Agency Specific Requirements* dated May 14, 2018. The *Research Terms & Conditions* will not be applied to NSF cooperative agreements or to NSF fellowship awards made to individuals.

Unless otherwise noted in a specific article, the *NSF Agency Specific Requirements* apply to all new NSF grants and funding amendments to existing NSF grants awarded on or after May 14, 2018.

Article 2. Prior Approval Requirements Not Included in the Research Terms & Conditions

The grantee must obtain written approval from NSF as specified in the *Research Terms and Conditions* Appendix A, Prior Approval Matrix.

Unless otherwise specified in the award notice, no additional NSF prior written approvals beyond those specified in Appendix A are required.

Requests for NSF prior written approval in the matrix specified above must be submitted via the use of NSF's electronic systems. Those prior approval requirements that do not already have a specific request type in NSF's electronic systems must be submitted via use of the "Other" category in Research.gov.

Article 3. Categories of Costs Aside from Those Identified in Subpart E of the Uniform Guidance that are Unallowable as Direct Charges

None.

Article 4. Contact Information for Technical Matters

Questions of a programmatic or technical nature should be directed to the cognizant NSF Program Officer identified in the award notice.

Article 5. Contact Information for Administrative Matters

Questions of an administrative nature should be directed to the cognizant NSF Grants Officer identified in the NSF award notice.

Article 6. Contact Information for Intellectual Property

Questions regarding intellectual property matters should be directed to the NSF Office of the General Counsel at (703) 292-8060.

Article 7. Revised Budget Requirements

Revised budgets, when required, must be submitted electronically via use of NSF's electronic systems. See *Proposal & Award Policies & Procedures Guide (PAPPG) Chapter III.D* and *PAPPG Chapter VII.B* for further instructions.

Article 8. Format, Content and Timing of Technical Reporting

a. *Annual Project Reports*

1. Submission Requirement. Annual project reports are required for both standard and continuing grants.¹

2. Content of Annual Project Reports. The Research Performance Progress Report (RPPR), as implemented by NSF in Research.gov, should be used for preparation of the Annual Project Reports to address progress in all activities of the project, including any activities intended to address the Broader Impacts criterion that are not intrinsic to the research. 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 grant, annual project reports should be submitted electronically, via Research.gov, 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 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

¹Submission of an "interim" report via [Research.gov](https://www.research.gov) does not constitute compliance with the annual reporting requirement.

the project's final report and must be submitted in accordance with paragraph b below. Failure to submit timely reports will delay NSF review and processing of pending proposals and processing of additional funding and administrative actions, including, but not limited to, no cost extensions for all identified PIs and co-PIs on a given grant. 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 grant, the final project report should be submitted electronically no later than 120 days following the end date of the grant. As reflected in the Project Report System, the report is considered due during the 120 day period. The report becomes overdue the day after the 120 day period ends. Note, however, that standard grants made prior to January 25, 2016 retain the requirement to submit final project reports no later than 90 days following the end date of the grant.

2. **Content of Final Project Report.** The Research Performance Progress Report (RPPR), as implemented by NSF in Research.gov, should be used for preparation of the Final Project Report to address progress in all activities of the project, including any activities intended to address the Broader Impacts criterion that are not intrinsic to the research. The grantee shall include subaward activities in final project reports that are submitted to NSF.

3. **Additional Requirements.** The grantee also shall provide to the cognizant NSF Program Officer, within 120 days following the end date of the grant, any unique reports or other end items specified in the grant (e.g., special cost sharing reports), including any reporting requirements set forth in the applicable program solicitation referenced in the grant as being directly related to either the grant or the administration of the grant.

c. *Project Outcomes Report for the General Public*

No later than 120 days following the end date of the grant, a project outcomes report for the general public must be submitted electronically via 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 [PAPPG Chapter VII.D.3](#). Note, however, that standard grants made prior to January 25, 2016 retain the requirement to submit project outcomes reports no later than 90 days following the end date of the grant.

Article 9. Expenditure Reports

Grantees must submit final payment requests through the Award Cash Management Service no later than 120 days after the end date of the grant. This requirement applies to all current grants and funding amendments to existing NSF grants, as well as to all new NSF grants.

NSF uses the payment request entries in the Award Cash Management Service (ACM\$) to collect the final financial data for awards paid through that system. No additional interim or final financial reporting is required.

Grantees must submit final payment requests through ACM\$ **no later than 120 days** after the grant end date. For instructions regarding final disbursement reporting, see [PAPPG Chapter VIII.E](#).

Article 10. Additional Documentation Besides Progress Reports Needed to Trigger Incremental Funding

Unless otherwise specified, each successive increment of a continuing grant will be funded at the level specified in the original award notice without a formal request from the grantee provided an annual project report has been received from the Principal Investigator(s) and accepted by the cognizant NSF Program Officer.

Continuing funding is contingent on (1) availability of funds; (2) satisfactory scientific/technical progress; and (3) any special conditions of the grant.

Article 11. Indirect Costs

Except where specifically identified in an NSF program solicitation, the applicable US Federally negotiated indirect cost rate(s) must be used in computing indirect costs (Facilities and Administrative Costs (F&A)) for a proposal. Use of an indirect cost rate lower than the organization's current negotiated indirect cost rate is considered a violation of NSF's cost sharing policy. The amount for indirect costs should be calculated by applying the current negotiated indirect cost rate(s) to the approved base(s). Indirect cost recovery for colleges, universities, and other organizations of higher education are additionally restricted by 2 CFR § 200, Appendix III, paragraph C.7. which specifies Federal agencies are required to use the negotiated F&A rates in effect at the time of the initial award throughout the life of the sponsored agreement. Additional information on the charging of indirect costs to an NSF grant is available in [PAPPG Chapter X.D](#).

Additional NSF Agency Specific Requirements

Article 12. Grantee Responsibilities and Federal Requirements

The grantee has full responsibility for the conduct of the project or activity supported under this grant and for adherence to the grant conditions. Although the grantee is encouraged to seek the advice and opinion of NSF on special problems that may arise, such advice does not diminish the grantee's responsibility for making sound scientific and administrative judgments and should not imply that the responsibility for operating decisions has shifted to NSF. The grantee 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 grant.

By acceptance of this grant, the grantee agrees to comply with the applicable Federal requirements for grants and cooperative agreements and to the prudent management of all expenditures and actions affecting the grant including the monitoring of subrecipients (if applicable). Specific guidance on subrecipient monitoring and management can be found in 2 CFR § 200.331.

Documentation for each expenditure or action affecting this grant 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 grant terms and conditions;
2. is consistent with NSF and grantee policies;
3. represents effective utilization of resources; and
4. does not constitute a significant project change.

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.

The grantee is responsible for ensuring that the Principal Investigator(s) (PIs) or Project Director(s) (PDs) and co-PIs/co-PDs receives a copy of the grant conditions, including: the award notice, the budget, the *Research Terms & Conditions*, any special terms and conditions and any subsequent changes in the grant conditions. These grant conditions are made available to the grantee by NSF in electronic form (<http://www.nsf.gov/bfa/dias/policy rtc/index.jsp>), and may be duplicated, copied or otherwise reproduced by the grantee as appropriate. This provision does not alter the grantee's full responsibility for conduct of the project and compliance with all grant terms and conditions. Award notices are available electronically via the NSF FastLane system at <https://www.fastlane.nsf.gov/fastlane.jsp>. Sponsored Project Offices are able to view, print and/or download NSF award notices for their organizations and PIs/PDs and co-PIs/co-PDs can access their individual award notices through use of the FastLane system.

Article 13. Participant Support Costs

a. Participant support costs as defined in 2 CFR § 200.75 are direct costs for items such as stipends or subsistence allowances, travel allowances and registration fees paid to or on behalf of participants (but not employees) in connection with NSF-sponsored conferences. NSF prior written approval is required for any additional categories of participant support costs, such as incentives, gifts, souvenirs, t-shirts and/or memorabilia and the request must be submitted via use of NSF's electronic systems and NSF approval of such changes will be by an amendment to the grant. Grantees must account for participant support costs separately. Indirect costs (F&A) are not allowed on participant support costs (see [PAPPG Chapter II.C.2.g\(v\)](#)).

b. Funds provided for participant support may not be used by grantees for other categories of expense without specific NSF prior written approval. Such requests must be submitted electronically via use of NSF's electronic systems.

Article 14. Travel

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 [PAPPG Chapter II.C.2.g\(iv\)](#)) who are in travel status on business related to an NSF-supported project are allowable as prescribed in the governing cost principles. Except as noted in paragraph b. below, the requirements for NSF prior written approval specified in 2 CFR § 200.474 are waived.

2. Except as provided in the governing 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

1. Travel support for dependents of key project personnel is allowable only under the conditions outlined in 2 CFR § 200.474(c)(2).

NSF prior written approval is required for travel costs for dependents and must be requested via use of NSF's electronic systems. NSF approval of such changes will be by an amendment to the award.

2. Temporary dependent care costs (as dependent is defined in 26 USC 152) above and beyond regular dependent care that directly results from travel to conferences is allowable as outlined in 2 CFR § 200.474(c)(1).

c. Use of US-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 US 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 US-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 US flag air carrier's designator code and flight number.

2. For the purposes of this requirement, US-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 US being performed by a foreign-flag air carrier:

(a) a US-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 US-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 US 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 GSA website at <http://www.gsa.gov/portal/content/103191>.

Note on US/European Union Open Skies Agreement

In 2007, the US 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 US 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 US/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 US 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 US and points in the EU.

2. *Involuntary Rerouting:* Travel on a foreign-flag carrier is permitted if a US-flag air carrier involuntarily reroutes the traveler via a foreign-flag air carrier, notwithstanding the availability of alternative US-flag air carrier service.

3. *Travel To and From the US 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 US-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 US-flag air carrier service would increase the number of aircraft changes the traveler must make outside of the US 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 US 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 US-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 US, and use of a US-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 US-flag air carrier would double the travel time.

Article 15. Information Collection

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

Article 16. Responsible Conduct of Research

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 grantees 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.

Grantees must designate one or more persons to oversee compliance with the RCR training requirement. Grantees 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 grantee has put in place for their organization.

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

Article 17. Reporting Subawards and Executive Compensation

The URL referenced in b.2.(a) below has changed to: <http://www.sam.gov>.

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. Executive 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 2 CFR § 200.330).

(c) A subaward may be provided through any legal agreement, including an agreement that you or a subrecipient considers a contract.

1. Subrecipient 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. Total compensation 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.

Article 18. System for Award Management and Universal Identifier Requirements

The Central Contractor Registration (CCR) has become the System for Award Management (SAM). The URL has changed to: <https://www.sam.gov>. All requirements related to CCR mentioned in the Article below apply to and must be completed in SAM.

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. Central Contractor Registration (CCR) 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. Data Universal Numbering System (DUNS) number 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. Entity, 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 2 CFR § 200.330).

(c) A subaward may be provided through any legal agreement, including an agreement that you consider a contract.

5. Subrecipient 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.

Article 19. 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 are available to the public on Research.gov at: <http://www.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.

Article 20. Federal Tax Obligations

Article 20 applies only to grants that have cumulative budgets that exceed \$5,000,000.

In accordance with the *Commerce, Justice, Science and Related Agencies Appropriations Act of 2012*, the grantee affirms that they:

- (1) have filed all required Federal tax returns;
- (2) have not been convicted of a criminal offense under the Internal Revenue Code of 1986; and
- (3) have not been notified of any unpaid Federal tax assessment for which the liability remains unsatisfied, unless the assessment is the subject of an installment agreement or offer in compromise that has been approved by the Internal Revenue Service and is not in default, or the assessment is the subject of a non-frivolous administrative or judicial proceeding.

Article 21. Payments

Except as noted in [PAPPG Chapter VIII.C](#), NSF grantees are required to request payments electronically through the Award Cash Management Service (ACM\$). Under ACM\$, grantees must provide award level detail at the time of the payment request. Grantees 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 grant, the grantee agrees to comply with all applicable Treasury regulations and National Science Foundation implementing and reporting procedures, which are outlined in [PAPPG Chapter VIII](#).

Article 22. Cost Sharing or Matching

a. *General*

1. The grantee must cost share in accordance with any amount specified on Line M of the grant budget. Cost sharing participation in other projects may not be counted towards meeting the specific cost sharing requirements of the grant, and must come from non-Federal sources.

2. Should the grantee become aware that it may be unable to provide the cost sharing of at least the amount identified on Line M of the NSF grant budget, it must: a) immediately provide written notification to the cognizant NSF 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 grant accordingly, including, if appropriate, reducing the amount of NSF support. Should the organization's plans be unacceptable to NSF, the grant 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 grant; the subsequent recovery by NSF of some or all of the NSF funds provided under the grant; possible termination of the grant; and may constitute a violation of the terms of the grant so serious as to provide grounds for subsequent suspension or debarment.

b. *Cost Sharing Records*

The grantee must maintain records of all project costs that are claimed by the grantee 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 § 200.306. Unless otherwise specified in the grant, 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 grantee'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*

The amount of mandatory cost sharing must be documented (on an annual and final basis), certified by the Authorized Organizational Representative, and reported to the cognizant NSF Program Officer via use of NSF's electronic systems. Such notifications must be submitted no later than 90 days prior to the end of the current budget period to meet the annual notification requirement, and no later than 120 days following the end date of the grant to meet the final notification requirement. The cost share notification is considered due during the 90 or 120 day period respectively. The notification becomes overdue **the day after the respective 90 or 120 day period ends**. Note, however, that standard grants made prior to January 25, 2016 retain the requirement to submit final cost sharing reports no later than 90 days following the end date of the grant.

Article 23. Revision of Budget & Program Plans

The grantee must obtain written approval from NSF as specified in the *Research Terms and Conditions* Appendix A, Prior Approval Matrix (see also Article 2).

Article 24. Non-Federal Audits

In order to avoid duplicate record keeping, NSF may make special arrangements with the grantee to retain any records that are needed for joint use. NSF may request transfer to its custody of records not needed by the grantee 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 grantee. In the rare event that this provision is exercised, NSF will negotiate a mutually agreeable arrangement with the grantee regarding reimbursement of costs.

All grants issued by NSF meet the definition of "Research and Development" (R&D) at 2 CFR § 200.87. As such, auditees should identify NSF grants as part of the R&D cluster on the Schedule of Expenditures of Federal Awards (SEFA). The auditor should test NSF grants for compliance as instructed in Part V, Clusters of Programs. NSF recognizes that some grants may have another classification for purposes of indirect costs. The auditor is not required to report the disconnect (i.e., the grant is classified as R&D for audit purposes but non-research for indirect cost rate purposes), unless the auditee is charging indirect costs at a rate other than the rate(s) specified in the grant document(s).

Article 25. Equipment

The standards for managing, tracking, and disposing of property furnished by NSF or whose cost was charged to a project supported by an NSF grant are outlined in 2 CFR § 200.310-316.

a. Unless otherwise specified in the grant, title to equipment purchased or fabricated with NSF grant funds shall vest in the grantee upon acquisition in accordance with 15 United States Code (USC) 3710. Such equipment shall be acquired and used in accordance with the Research Terms & Conditions and the provisions below.

b. Conditions for Acquisition and Use of Equipment

1. Grantee Assurance. The grantee 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; and
 - (d) acquired in accordance with organizational practice.
2. General Purpose Equipment. Expenditures for general-purpose equipment are typically not eligible for support (see [PAPPG Chapter IX.D.2.b](#)).
3. Equipment Usage. The equipment must remain in use for the specific project for which it was obtained in accordance with 2 CFR § 200.313(c)(1), unless the provision in 2 CFR § 200.313(c)(4) applies.

4. Equipment Sharing. The equipment must be shared on other projects or programs in accordance with 2 CFR § 200.313(c)(1).

5. Property Management Standards. The grantee shall maintain a property management system that, at a minimum, meets the requirements of 2 CFR § 200.313(d). Because of increasing threats to information technology systems, the grantee is reminded that, under 2 CFR §§ 200.313(d)(3) and (4), "[a] control system must be developed to ensure adequate safeguards to prevent loss, damage, or theft of the property" and "[a]dequate maintenance procedures must be developed to keep the property in good condition." This requirement imposes on the grantee 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 Reporting Requirements for NSF-owned Equipment.

(a) In the event that title to equipment is vested in the Federal Government (i.e., NSF) such property shall be marked, tagged or segregated in such a manner as to indicate clearly its ownership by the government. In accordance with the requirements of 2 CFR § 200.312(a), for all NSF-owned equipment having an original acquisition cost of \$5,000 or more, the grantee must submit an annual inventory report by NSF grant number of such property to the NSF Property Administrator, Division of Administrative Services (DAS).

The report should include all NSF owned equipment purchased or constructed, including land and buildings, under the grant or acquired by screening excess through the General Services Administration (GSA); and include the type of equipment or property, serial number, acquisition price, acquisition date and condition of the equipment. In the event that the grantee is in possession of NSF-owned equipment under multiple grants, the reporting must be specific to each NSF grant number.

The report also should include a description of Construction-in-Progress (CIP) and Work-in-Progress (WIP) items and construction costs incurred to date. CIP is defined as real property that is in the process of being manufactured or fabricated but is not yet complete. WIP is defined as equipment that is in the process of being manufactured or fabricated but is not yet complete. CIP and WIP consist of the costs of direct materials, direct labor, direct purchased services and indirect costs, including general and administrative and overhead costs. Costs coded as such should not be depreciated. The inventory should be submitted electronically to fsrpts@nsf.gov and must be received by DAS no later than August 15 each year.

(b) A physical inventory of NSF-owned equipment shall be conducted every two years pursuant to 2 CFR § 200.313(d)(2). At the end of the grant, the grantee shall report the property to the Property Section for further agency utilization (See [PAPPG Chapter IX.D.4](#)).

7. Competition. The grantee 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 Federal statute for as long as the Federal government retains an interest in the equipment in accordance with 2 CFR § 200.313(c)(3).

8. Right to Transfer Title.

(a) In accordance with 2 CFR § 200.313(e), 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 days after the end date of the NSF-supported project for which it was acquired.

Article 26. Intangible Property²

The following Patent Rights article (implementing the Bayh-Dole Act., [35 USC § 200 et seq.] shall apply to all awards for scientific or engineering research unless special provisions have been negotiated. The grantee shall include this article in all subawards for scientific or engineering 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 USC § 2321 et seq.](#))

2. SUBJECT INVENTION means any invention of the grantee conceived or first actually reduced to practice in the performance of work under this grant, 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 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. SMALL BUSINESS FIRM means a small business concern as defined at section 2 of Pub. L. 85-536 (15 USC 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this article, the size standards for small business concerns involved in government procurement and subcontracting at 13 CFR 121.3-8 and 13 CFR 121.3-12, respectively, will be used.

6. 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

² Grantees are reminded that, in view of the US Supreme Court decision in [Stanford v. Roche](#), employee assignment agreements should include a present conveyance of rights ("I hereby assign" rather than a promise or intent to assign) in order to effectively convey patent rights to the institution, allowing the institution to meet its responsibility under the Bayh-Dole Act to provide the agency with a license to patented inventions.

Internal Revenue Code of 1954 (26 USC § 501(c)) and exempt from taxation under Section 501(a) of the Internal Revenue Code (26 USC § 501(a)) or any domestic non-profit scientific or educational organization qualified under a State non-profit organization statute.

7. STATUTORY PERIOD means the one-year period before the effective filing date of a claimed invention during which exceptions to prior art exist per 35 USC 102(b) as amended by the Leahy-Smith America Invents Act, Public Law 112-29.

8. CONTRACTOR means any person, small business firm or nonprofit organization, or, as set forth in section 1, paragraph (b)(4) of Executive Order 12591, as amended, any business firm regardless of size, which is a party to a funding agreement.

b. *Allocation of Principal Rights*

The grantee may retain the entire right, title and interest throughout the world to each subject invention subject to the provisions of this Intangible Property article and 35 USC Part 203. With respect to any subject invention in which the grantee 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 US the subject invention throughout the world. If the grant indicates it is subject to an identified international agreement or treaty, the National Science Foundation (NSF) also has the right to direct the grantee 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 Grantee*

1. The grantee will disclose each subject invention to NSF within two months after the inventor discloses it in writing to grantee 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 grant 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 grantee 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 grantee.

2. The grantee 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 a patent, a printed publication, public use, sale or other availability to the public has initiated the one-year statutory period wherein valid patent protection can still be obtained in the US, 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 grantee 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 US after a

publication, on sale, or public use. If the grantee files a provisional application as its initial patent application, it shall file a non-provisional application within 10 months of the filing of the provisional application. The grantee will file patent applications in additional countries or international patent offices within either ten months of the first filed patent application, or six months from the date when permission is granted by the Commissioner of Patents to file foreign patent applications when such filing has been prohibited by a Secrecy Order.

4. For any subject invention with NSF and grantee co-inventors, where NSF determines that it would be in the interest of the government, pursuant to 35 USC 207(a)(3), to file an initial patent application on the subject invention, NSF, at its discretion and in consultation with the grantee, may file such application at its own expense, provided that the grantee retains the ability to elect title pursuant to 35 U.S.C. 202(a).

5. 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. When a grantee has requested an extension for filing a non-provisional application after filing a provisional application, a one-year extension will be granted unless NSF notifies the contractor within 60 days of receiving the request.

d. *Conditions When the Government May Obtain Title*

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

1. if the grantee fails to disclose or elect the subject invention within the times specified in paragraph c. above, or elects not to retain title;

2. in those countries in which the grantee fails to file patent applications within the times specified in paragraph c. above, provided, however, that if the grantee has filed a patent application in a country after the times specified in paragraph (c) of this article, but prior to its receipt of the written request of NSF, the grantee shall continue to retain title in that country; or

3. in any country in which the grantee decides not to continue the prosecution of any non-provisional patent application for, to pay a maintenance, annuity or renewal fee on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

e. *Minimum Rights to Grantee*

1. The grantee will retain a non-exclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the grantee fails to disclose the subject invention within the times specified in paragraph c. above. The grantee's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the grantee is a party and includes the right to award sublicenses of the same scope to the extent the grantee 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 grantee's business to which the invention pertains.

2. The grantee'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 grantee 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 grantee, 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 grantee a written notice of its intention to revoke or modify the license, and the grantee will be allowed thirty days (or such other time as may be authorized by NSF for good cause shown by the grantee) after the notice to show cause why the license should not be revoked or modified. The grantee 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. *Grantee Action to Protect Government's Interest*

1. The grantee 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 grantee 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 grantee 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 grantee each subject invention made under this grant in order that the grantee can comply with the disclosure provisions of paragraph c. above, to assign to the grantee the entire right, title and interest in and to each subject invention made under the grant, 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 grantee 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 US or foreign statutory bars.

3. For each subject invention, the grantee will no less than 60 days prior to the expiration of the statutory deadline, notify NSF of any decision: not to continue the prosecution of a non-provisional patent application; not to pay a maintenance, annuity or renewal fee; not to defend in a reexamination or opposition proceeding on a patent, in any country; to request, be a party to, or take action in a trial proceeding before the Patent Trial and Appeals Board of the U.S. Patent and Trademark Office, including but not limited to post-grant review, review of a business method patent, *inter partes* review, and derivation proceeding; or to request, be a party to, or take action in a non-trial submission of art or information at the U.S. Patent and Trademark Office, including but not limited to a pre-issuance submission, a post-issuance submission, and supplemental.

4. The grantee agrees to include, within the specification of any US patent application and any patent issuing thereon covering a subject invention, the following statement:

“This invention was made with Government support under (identify NSF grant number) awarded by the National Science Foundation. The Government has certain rights in this invention.”

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

g. *Subawards*

1. The grantee will include this Intangible Property article, suitably modified to identify the parties, in all subawards, regardless of tier, for experimental, developmental or research work. The subawardee will retain all rights provided for the grantee in this Intangible Property article, and the grantee will not, as part of the consideration for awarding the subaward, obtain rights in the subawardees' subject inventions.

2. In the case of subawards, at any tier, when the prime award by NSF was a contract (but not a cooperative agreement), NSF, subawardee and contractor agree that the mutual obligations of the parties created by this Intangible Property article constitute a contract between the subawardee and the Foundation with respect to those matters covered by this Intangible Property article.

h. *Reporting on Utilization of Subject Inventions*

The grantee 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 grantee 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 grantee and such other data and information as NSF may reasonably specify. The grantee also agrees to provide additional reports in connection with any march-in proceeding undertaken by NSF in accordance with paragraph j. of this Intangible Property article. As required by [35 USC § 202\(c\)\(5\)](#), NSF agrees it will not disclose such information to persons outside the Government without the permission of the grantee.

i. *Preference for United States Industry*

Notwithstanding any other provision of this Intangible Property article, the grantee agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the US 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 US. However, in individual cases, the requirement for such an agreement may be waived by NSF upon a showing by the grantee 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 US or that under the circumstances domestic manufacture is not commercially feasible.

j. *March-in Rights*

The grantee 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 grantee, 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 grantee, assignee or exclusive licensee refuses such a request, NSF has the right to grant such a license itself if NSF determines that such action is necessary:

1. because the grantee 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. to alleviate health or safety needs which are not reasonably satisfied by the grantee, assignee, or their licensees;
3. to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the grantee, assignee, or licensee; or
4. because the agreement required by paragraph i. of this Intangible Property article has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the US is in breach of such agreement.

k. *Special Provisions for Grants with Non-profit Organizations*

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

1. rights to a subject invention in the US 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 grantee;
2. the grantee 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 USC § 202\(e\)](#) and [37 CFR § 401.10](#);
3. the balance of any royalties or income earned by the grantee 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 grantee 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 grantee 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 grantee. However, the grantee agrees that NSF may review the grantee's licensing program and decisions regarding small business applicants, and the grantee will negotiate changes to its licensing policies, procedures or practices with NSF when NSF's review discloses that the grantee could take reasonable steps to implement more effectively the requirements of this paragraph k.4. In accordance with 37 CFR 401.7, NSF or the grantee may request that the Secretary review the grantee's licensing program and decisions regarding small business applicants.

I. *Communications.* All communications required by the Intangible Property article 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, 2415 Eisenhower Avenue, Alexandria, VA 22314.

Article 27. Copyright Ownership, Government License

Except as otherwise specified in the grant or by this paragraph, the grantee may own or permit others to own copyright in all subject writings. Subject writing means any material that:

1. is or may be copyrightable under Title 17 of the USC; and
2. is produced by the grantee or its employees in the performance of work under this grant.

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

The grantee 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 US 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.

d. *Grants Affected by International Agreements*

If the grant indicates it is subject to an identified international agreement or treaty, NSF can direct the grantee 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. In such cases, the standard clauses for Copyrighted Material or Intangible Property will be modified through the addition of the following:

“This project is supported under the cooperative program listed below. Your rights in inventions, writings and data may be affected.”

The applicable agreement or treaty will be identified immediately beneath that sentence.

e. *Grantee Action to Protect Government Interests*

The grantee 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 grantee 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.

Article 28. Public Access to Copyrighted Material

NSF's Public Access Policy applies to awards, funded in whole or in part, as a result of proposals submitted, or due, on or after January 25, 2016. NSF's Public Access Policy may be viewed at http://www.nsf.gov/news/special_reports/public_access/.

NSF's policy on public access to copyrighted material (Public Access Policy) reflects the Foundation's commitment to making certain that, to the extent possible, the American public, industry and the scientific community have access to the results of federally funded scientific research. Pursuant to this policy, grantees must ensure that all articles in peer-reviewed scholarly journals and papers in juried conference proceedings:

- are deposited in a public access compliant repository (as identified in the Public Access Policy);
- are available for download, reading and analysis within 12 months of publication;
- possess a minimum set of machine-readable metadata elements as described in the Public Access Policy;
- are reported in annual and final reports with a persistent identifier.

Either the final printed version or the final peer-reviewed manuscript is acceptable for deposit.

Article 29. Publications

The grantee is responsible for assuring that an acknowledgment of NSF support is made in any publication (including World Wide Web pages) of any material based on or developed under the project and that NSF support is orally acknowledged during all news media interviews, including popular media such as radio, television and news magazines (see [PAPPG Chapter XI.E](#)).

The grantee 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 grant, clearly labeled with the grant number and other appropriate identifying information, promptly after publication.

Article 30. Program Income

a. *Standard Treatment*

Unless otherwise specified in the grant, program income received or accruing to the grantee during the period of the grant is to be retained by the grantee, added to the funds committed to the project by NSF, and thus used to further project objectives. The grantee has no obligation to NSF with respect to program income received beyond the period of the grant.

The grantee also shall have no obligation to NSF with respect to program income earned from license fees and royalties for copyrighted material, patents, patent applications, trademarks and inventions produced under a grant (see [PAPPG Chapter VIII.D.4](#)). However, Patent and Trademark Amendments (35 USC 18) shall apply to inventions made under a grant.

Efforts should be made to avoid having unexpended program income remaining at the end of the grant. Program income earned during the project period should be expended prior to requesting reimbursement against the grant. In the event a grantee has unexpended program income remaining at the end of the grant, it must be remitted to NSF by crediting costs otherwise chargeable against the grant. If it is not possible to record the credit via ACM\$, the excess program income must be remitted to NSF electronically or by check payable to the National Science Foundation.

b. *Special Treatment*

In exceptional circumstances, NSF may approve use of a special grant provision to restrict or eliminate a grantee's control of income earned through NSF-supported activities if it determines that this would best serve the purposes of a particular program or grant. The special provisions may require treatment of the program income via use of the deductive method, the Federal share of program income be kept in a separate account, or reported on and/or remitted for such periods as may be reasonable under the circumstances.

If, in accordance with the grant terms and conditions program income is designated for deductive treatment, it must be remitted to NSF by crediting costs otherwise chargeable against the grant. Program Income in excess of the grant will be remitted to NSF electronically or by check payable to the National Science Foundation.

c. *Records Retention*

The grantee is required to retain appropriate financial and other records relating to program income earned during the grant period of performance and for three years beyond the date of submission of the final financial disbursements in ACM\$. For instructions regarding final disbursement reporting, see [PAPPG Chapter VIII.E](#).

d. *Reporting Requirements*

On an annual basis, grantees are required to submit a Program Income Reporting Worksheet to NSF in order to report program income earned/expended for any of their

grants during the previous twelve months or to validate that they did not earn/ expend program income for any of their grants during the applicable period. The Program Income Reporting Worksheet utilizes the standard OMB-approved Government-wide data elements from the Program Income section of the Federal Financial Report (SF 425) and is due 45 days after the end of the Federal Fiscal Year. The Program Income Reporting Worksheet and related instructions are available through Research.gov (<http://research.gov/programincome>).

Failure to report program income or to validate that no program income was earned or expended could result in suspension of future grant payments.

Article 31. Reporting Classifiable Information

NSF grants are intended for unclassified, publicly releasable research. The grantee 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 a grant, the PI/PD or co-PI/co-PD 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/PD or co-PI/co-PD should promptly notify the cognizant NSF Program Officer.

Article 32. Animal Welfare

a. Any grantee performing research on vertebrate animals³ shall comply with the Animal Welfare Act [7 USC §§ 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 grants. The grantee is expected to ensure that the guidelines described in the National Academies of Science, Engineering and Medicine (NASEM) Publication, "*Guide for the Care and Use of Laboratory Animals*" 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 NASEM Guide). Further guidance on the use of vertebrate animals in NSF funded projects can be found in [PAPPG Chapter XI.B.3](#).

b. Effective October 1, 2015, grantees must include NSF-supported activities with live vertebrate animals as covered activities in their Office of Laboratory Animal Welfare (OLAW) Animal Welfare Assurance. Further, they must promptly report situations involving NSF-supported animal activities to OLAW as required by the Public Health Service (PHS) Policy on Humane Care and Use of Laboratory Animals (<http://grants.nih.gov/grants/olaw/references/phspol.htm>) Section IV.F.3. The cognizant NSF Program Officer also should be notified.

c. Any changes to, or lapses in, the Institutional Animal Care and Use Committee approved animal use protocols associated with an NSF grant should be reported promptly by the grantee to the cognizant NSF Program Officer.

³ 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.

d. In the event the grantee's multi-project Assurance is cancelled or lapses, the grantee must immediately notify the cognizant NSF Grants Officer(s) identified in the award notice.

Research facilities subject to the Animal Welfare Act using or intending to use live animals in research and who receive Federal funding are required to register the facility with the Animal and Plant Health Inspection Service (APHIS), US Department of Agriculture. 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/>.

Article 33. Investigator Financial Disclosure Policy

If the grantee employs more than 50 persons, the grantee must maintain an appropriate written and enforced policy on conflict of interest consistent with the provisions of [PAPPG Chapter IX.A](#).

Article 34. State Sales and Use Taxes

Grantees are reminded that the governing cost principles limit the allowability of taxes to those the organization is required to pay. Grantees 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 grant funds.

Article 35. Micro-purchase Threshold

a. In accordance with Section 207 (a)(1) of the American Innovation and Competitiveness Act (AICA), the micro-purchase threshold for procurement activities under this grant is raised to \$10,000. Grantees are authorized to establish lower thresholds at their discretion.

b. NSF is in the process of developing procedures for submission of grantee requests for higher micro-purchase thresholds as specified in AICA Section § 207 (a)(2). Until such time as these procedures have been disseminated by the Foundation, submission of such requests will not be permitted.

Article 36. Breach of Personally Identifiable Information

Grantees that use or operate a Federal information system or create, collect, use, process, store, maintain, disseminate, disclose, or dispose of Personally Identifiable Information (PII) within the scope of an NSF award, must have procedures in place to respond to a breach of PII. These procedures should promote cooperation and the free exchange of information with NSF, as needed to properly escalate, refer and respond to a breach. Grantees will notify NSF upon learning that a breach of PII within the scope of an NSF award has occurred.

Article 37. Termination and Enforcement

a. Any suspension or termination action taken by NSF must be issued by a cognizant NSF Grants Officer and will be in accordance with this article and [PAPPG Chapter XII.A](#).

b. The grant may be suspended or terminated in whole or in part in any of the following situations by:

1. NSF when the grantee fails to comply with the terms and conditions of the grant;
2. NSF when the Foundation has cause;
3. NSF when ordered by the Deputy Director under NSF's Regulation on Research Misconduct [45 CFR Part 689];
4. mutual agreement of NSF and the grantee; or
5. the grantee 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 grant, it may suspend or terminate the entire grant).

c. Normally, action by NSF to suspend or terminate a grant will be taken only after the grantee 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 grant 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 grantee 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 grant and the governing cost principles.

e. Within 30 days of the termination date, the grantee will furnish a summary of progress under the grant 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 grant, including this article, and the governing cost principles, giving due consideration to the progress under the grant. In no event will the total of NSF payments under a terminated grant exceed the grant amount, or the NSF pro rata share of the total project costs when cost sharing was anticipated, whichever is less.

f. When an NSF grant is terminated or partially terminated, both NSF and the grantee remain responsible for compliance with the requirements in 2 CFR §§ 200.343 Closeout and 200.344 Post-closeout adjustments and continuing responsibilities.

g. A notice of termination other than by mutual agreement and/or the final settlement amount may be subject to review pursuant to Article 37.

h. NSF will report grant terminations to the OMB-designated integrity and performance system in accordance with Federal regulation, but only after the grantee has had an opportunity to exhaust the review procedures contained in [PAPPG Chapter XII.B](#).

Article 38. Termination Review Procedure

a. A request for review of a notice of termination or settlement should be addressed to the Division Director, Division of Grants and Agreements (DGA), National Science Foundation, 2415 Eisenhower Avenue, Alexandria, VA, 22314. It must be postmarked no later than 30 days after the date of the letter notifying the grantee of the termination or settlement.

b. The request for review must contain a full statement of the grantee'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 [PAPPG Chapter XII.B.3](#).

d. Pending resolution of the request for review, the notice of termination shall remain in effect.

Article 39. Resolution of Conflicting Conditions

Should there be any inconsistency between any special conditions contained in the award notice and the Research Terms & Conditions, the special conditions in the award notice shall control. Should there be any inconsistency between the Research Terms & Conditions, any special conditions contained in the award notice, and any NSF guides, brochures, etc., cited or included by reference in the award notice, the matter should be referred to the cognizant NSF Grants Officer for guidance.

Other Considerations

Article 40. Liability

NSF cannot assume any liability for accidents, bodily injury, illness, breach of contract, any other damages or loss, or any claims arising out of any activities undertaken pursuant to the grant, whether with respect to persons or property of the grantee or third parties. The grantee is advised to insure or otherwise protect itself or others, as it may deem desirable.

Article 41. 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 grantees 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.

Article 42. Government Permits and Activities Abroad

a. For grants that include activities requiring permits from appropriate Federal, state, or local government authorities, the grantee should obtain any required permits prior to undertaking the proposed activities.

b. The grantee 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 grantee compliance with the laws and regulations of the country in which the work is to be conducted.

c. The grantee 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.