



NATIONAL SCIENCE FOUNDATION (NSF)

Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Phase II Cooperative Agreement Financial & Administrative Terms and Conditions (SBIR/STTR-II-CA-FATC)

Effective May 13, 2022

Effective May 13, 2022, new NSF cooperative agreements and funding amendments to existing NSF cooperative agreements will begin referencing, and are subject to, the Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR) Phase II Cooperative Agreement Financial & Administrative Terms and Conditions (SBIR/STTR-II-CA-FATC) dated 5/13/22.

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1. Type of Award

The award notice specifies a pre-determined fixed amount of NSF support for the project described in the referenced proposal. This amount is based upon the budget approved by NSF for the referenced proposal, as amended.

Payment of the award amount is subject to compliance with the award terms and conditions, including

Article Allowable Costs, Article Payments, Article Project Reporting Requirement, Article Price Reduction for Defective Cost or Pricing Data, and NSF's acceptance of the reports submitted by the awardee under Article Project Reporting Requirements. On the basis of its review of these reports and/or other pertinent information, NSF reserves the right to modify the payment schedule or suspend or terminate the award, if NSF determines that such action is appropriate. If estimated total expenditures are less than the award amount (less the small business fee), the awardee shall contact NSF to renegotiate the scope of this award. Similarly, if the awardee expects that the full scope of work will be completed at a total cost less than the award amount (less the small business fee), it is the obligation of the awardee to promptly notify NSF.

2. 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 SBIR/STTR Phase II Cooperative Agreement Financial & Administrative Terms and Conditions unless otherwise specified in the award notice. The applicable Federal administrative standards are incorporated by reference and are contained in 2 CFR §200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (Uniform Guidance) Subparts A through D. 2 CFR §200 Subparts A through D also apply to commercial organizations, including small businesses. These SBIR/STTR Phase II Cooperative Agreement Financial & Administrative Terms and Conditions (SBIR/STTR-II-CA-FATC) serve as the Foundation's implementation of 2 CFR §200.

c. By acceptance of this award, the awardee agrees to comply with the applicable Federal requirements and to the prudent management of all expenditures and actions affecting the award, including the monitoring of subrecipients (if applicable). Specific guidance on subrecipient monitoring and management can be found in 2 CFR §200.331. A listing of National Policy Requirements the awardees must adhere to, where applicable, is located at: <https://nsf.gov/awards/managing/rtc.jsp>.

d. Documentation for each 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 the award terms and conditions;
2. is consistent with NSF and awardee policies;
3. represents effective utilization of resources; and
4. does not constitute a project change which requires NSF prior written approval (see Article Project Changes).

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 §200.

e. The awardee is responsible for ensuring that the Principal Investigator(s) (PIs)¹ and co-PIs receive 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 (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. Award notices are available electronically via the NSF FastLane system at <https://www.fastlane.nsf.gov/>.

3. NSF Responsibilities

a. The awardee has overall responsibility for NSF-funded cooperative agreements, including providing award oversight for technical/programmatic, 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; review and, where required by the Agreement, approve technical or programmatic reports and requests submitted by the awardee; and may schedule desk and/or 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 Article 4.b. below.

c. The cognizant NSF Program Officer will only request additional work within the scope of the award; will only issue instructions that do not constitute a project change as defined in Article Project Changes; and will only suggest changes that will not increase or decrease the estimated cost or time required for performance under the Cooperative Agreement (see Article Limitation of Funds).

4. Prior Approval Requirements

a. Unless otherwise stated in the award notice, SBIR/STTR Phase II awardees must obtain NSF prior written approval as specified in these terms and conditions and in the [applicable prior approval matrix](#). Requests for NSF prior written approval specified in the applicable NSF Prior Approval Matrix 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.

b. All requests for no cost extensions must be submitted in accordance with the procedures set forth in [PAPPG Chapter VI.D.3.c.\(ii\)](#)² Awardee-approved extensions are not applicable to NSF cooperative agreements.

¹ For purposes of the terms and conditions, the term Principal Investigator (PI) and co-PI also includes the term Project Director and co-Project Director.

² Awardees are not authorized to extend an award that contains a zero balance.

c. NSF approval requirements (Change of Scope). Certain changes to the award that involve the approved scope of work require NSF pre-approval. Such changes of scope include, but are not limited to:

- Changes to any of the “key personnel”. Changes could include removal, substitution, or significantly reduced involvement (25% or more reduction in effort). Key personnel include any company employees listed on line A of the approved budget, any consultants listed on line G.5 of the approved budget, any subaward personnel listed on line A of a subaward budget, and/or anyone so named as a key person in the NSF award notice.
- Reduction of the total level of project effort (as measured by the number of person-months of commitment by all company employees) of 25% or more.
- Any purchase of equipment, not in the original approved budget, totaling \$25,000 or more.
- No item of equipment over \$5,000, other than items identified in the approved budget, may be purchased without the advance written approval of the cognizant NSF Program Officer.
- Adding or removing project subawards, or any significant reduction (25% or more) of the amount of an existing subaward.
- Closure of the project with award funds (less the small business fee) unexpended. If the approved scope of work is completed with funds unspent (excluding the small business fee), the awardee is obligated to work with NSF to come to a mutually agreeable scope change before closing out the project.
- Expenditure of any funds listed in the approved award budget for “Technical and Business Assistance” (TABAs) activities, unless said activities were fully documented (including pricing documentation and information about the specific vendors to be used) in the Phase II proposal budget and included in the Phase II Administrative and Financial Capability review (see Article 13).
- Reallocation of funds from TABA activities to other project costs (see Article Technical and Business Assistance Costs).
- Expenditure of any award funds for travel costs for dependents of key project personnel. Such costs are only permitted under the conditions outlined in 2 CFR §474(c)(2).
- Expenditure of funds for foreign travel or expenditure of funds on project activities to be carried out in foreign countries. Foreign travel is not permitted in SBIR/STTR awards except with a specific waiver from the cognizant NSF Program Officer. All work in SBIR/STTR awards must be carried out in the United States unless a waiver is granted by the cognizant NSF Program Officer.

d. NSF approval requirements (Conflicts of Interest). NSF must approve allocations of funds or the addition of new personnel and/or organizations where certain pre-existing relationships are in place between the small business and the proposed new personnel and/or organizations. Cases where NSF approval is required include, but are not limited to:

- New commitment (or reallocation) of funds to any employee or consultant who is a relative of any

company owner, officer, director, or employee. In this context and as noted below, “relative” means an individual who is related as father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half-brother, or half-sister.

- New commitment (or reallocation) of funds to any organization with an owner, officer, director, or employee who is a relative of any owner, officer, director, or employee of the small business.
- New commitment (or reallocation) of funds to any organization where a company owner, officer, director, or employee (or a relative thereof) is an owner, officer, director, employee, or otherwise has a significant financial interest.

5. Pre-award Costs

a. The awardees may approve pre-award costs incurred within the 90-calendar day period before the start date of the award. Requests for approval of pre-award costs for periods greater than 90 calendar days must be submitted electronically via NSF’s electronic systems.

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 Allowable Costs.

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 anticipated.

d. In accordance with 2 CFR §200.458, if pre-award costs are charged to the award, these costs must be charged to the initial budget period, unless otherwise specified in the award notice.

6. No-Cost Extensions

No-cost extensions to the project must be approved by NSF. Requests for no-cost extensions should be submitted to NSF at least 45 days prior to the expiration date of the award and must be submitted through NSF’s electronic systems. The request must explain the need for the extension and include an estimate of the unobligated funds remaining and a plan for their use.

7. Consultant Services (also referred to as Professional Service Costs)

Costs for professional and consultant services, 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 and when not contingent upon recovery of costs from NSF. If not included in the award budget, anticipated services must be justified and information furnished on each individual’s expertise, primary organizational affiliation, normal daily compensation rate and number of days of expected service. Consultants’ travel costs, including subsistence, may be included. If requested, the awardee must be able to justify that the proposed rate of pay is reasonable. Additional information on the allowability of consultant costs is available in 2 CFR §200.459.

8. Equipment

Equipment falls under the umbrella of property, which consists of real property and personal property (tangible and intangible). The standards for managing, tracking, and disposing of property funded by NSF or any property acquired for a project under an NSF award are outlined in 2 CFR §§200.310-316. See also FAQ 200.318-1 of the [Frequently Asked Questions for The Office of Management and Budget's Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards at 2 CFR §200](#) regarding Equipment and Screening Procedures.

a. *Title*

Unless otherwise specified in the cooperative agreement, title to equipment purchased or fabricated with NSF award funds will vest with the awardee upon acquisition. Such equipment is considered exempt property and shall be acquired and used in accordance with paragraph c below. In special situations, the award may require that title to equipment purchased, acquired or fabricated by the awardee with NSF funds pass directly to the government upon acquisition. The awardee holds title to the property in trust consistent with [2 CFR §200.316](#), unless and until the expiration of 120 days from the award end date providing the government has not exercised its conditional interest as further described in paragraph b.7.

b. *Conditions for Acquisition and Use of Equipment*

1. **Awardee Assurance.** The awardee will assure that for each purchase of equipment, it is:
 - (a) necessary for the research or activity supported by the award;
 - (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 awardee shall maintain a property management system that, at a minimum, meets the requirements of 2 CFR §200.313(d), which requires a physical inventory every two years, ensures adequate safeguards to prevent loss, damage, or theft of the property, and provides for maintenance procedures to keep the property in good condition.
6. **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 Federal

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

7. Right to Transfer Title. 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 award period.

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.

9. Participant Support Costs

a. Participant support costs as defined in 2 CFR §200.1 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. 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 award. The awardees must account for participant support costs separately. Indirect costs (Facilities and Administrative Costs (F&A)) are not allowed on participant support costs (see [PAPPG Chapter II.C.2.g\(v\)](#)).

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

10. Project Changes

Consistent with 2 CFR §200.308(c), the awardee is required to obtain NSF prior written approval whenever there are changes in the project as stipulated below.

a. Subawarding or Transferring Part of an NSF Award (Subaward)

1. If the intention to subaward or transfer part of the project to another organization has been disclosed in the proposal, NSF authorization is not needed unless approval has been specifically withheld in the award notice.
2. If it becomes necessary to subaward or transfer part of an NSF award after an award has been made, notification of this intent should be submitted via use of NSF's electronic systems and must be electronically signed by an Authorized Organizational Representative (AOR). The request shall include a clear description of the work to be performed and a proposed budget (see [PAPPG Chapter VII.B.4](#) for additional information). NSF approval of such changes will be by an amendment to the award.
3. The awardee remains responsible for monitoring of the activities of the subrecipient as necessary to ensure that the subaward is used for authorized purposes, in compliance with Federal statutes, regulations and the terms and conditions of the subaward as outlined in 2 CFR §200.331-332. This includes ensuring necessary documentation on all subawards is maintained for the same retention period as the awardee's 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. Consistent with the requirements specified in 2 CFR §200.332, the awardees must adhere to the requirements for pass-through entities in establishing and managing subawards issued under the award. In addition, the awardees shall ensure that the following articles, if applicable, flow down to all subawardees, or are appropriately addressed in the subaward instrument: Articles Consultant Services (also referred to as Professional Service Costs), Equipment, Participant Support Costs, Procurement Standards, Travel, Allowable Costs, Information Collection, Responsible and Ethical Conduct of Research, Reporting Subawards and Executive Compensation, System for Award Management and Universal Identifier Requirements, Copyrighted Material, Publications, Intangible Property, Audit and Records, Site Visits, Non-Discrimination Statutes, Reporting Classifiable Information, Animal Welfare, Research Involving Recombinant or Synthetic Nucleic Acid Molecules, Clean Air and Water, Human Research Subjects, Life Sciences Dual Use Research of Concern (DURC), Whistleblower Protection, State Sales and Use Taxes, Build America, Buy America, Recipient Integrity and Performance Matters, Fee Payments, Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019, Liability, Sharing of Findings, Data and Other Research Products, Government Permits and Activities Abroad.

If the awardee issues contracts exceeding \$2,000 for construction, alteration or repair that are within the scope of the Acts found in 2 CFR §200, Appendix II, "Contract Provisions for Non-Federal Entity Contracts Under Federal Awards," the appropriate clauses applicable to construction activities also will be included in applicable contracts.

b. *Changes 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 via use of NSF's electronic systems. NSF approval of such changes will be by an amendment to the award.

c. *Long-Term Disengagement or Change of PI or co-PI*

If a named PI or co-PI 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 in 2 CFR §200.308(c)(3) as a reduction of 25% or more in time devoted to the project); (2) sever his or her connection with the awardee; or (3) be disengaged from the project for a continuous period of more than 3 months, or otherwise relinquish active direction of the project, he or she shall advise the appropriate official at the awardee, who shall initiate action appropriate to the situation in accordance with the guidelines described in [PAPPG Chapter VII.B.2.](#)

11. Procurement Standards

- a. The awardee (including commercial organizations) is responsible for compliance with the procurement standards identified in 2 CFR §200.317-327.

12. 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 Article Prior Approval Requirements, the requirements for NSF prior written approval specified in 2 CFR §200.475 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.

13. Technical and Business Assistance Costs

a. The associated Phase II SBIR/STTR solicitation permits proposers to include up to \$50,000 for commercialization assistance to assist in technology commercialization efforts (as outlined in the current SBIR/STTR Policy Directive and the John S. McCain National Defense Authorization Act for Fiscal Year 2019). Specifically, this funding is for securing the services of one or more third-party service providers that will assist with one or more of the following commercialization activities:

1. the identification and development of customers for the NSF-funded technology;
2. providing advice on financing strategy and fundraising from private sector;
3. establishing strategic partnerships with relevant stakeholders; and/or
4. the evaluation and protection of intellectual property.

b. If the approved award budget includes funds for TABA activities, and these funds were not allocated to specific cost items, each of which was documented with pricing documentation, and reviewed in-depth as part of the Phase II Administrative and Financial Capability review, then the following requirements apply:

1. Prior to expending funds for these purposes, the awardee will be required to submit the following documentation for approval from the cognizant NSF Program Officer:
 - The proposed commercialization-related activities to be undertaken with support from the service provider. These activities should be consistent with the Phase II commercialization plan submitted in the Phase II proposal.
 - The expected outcomes of the proposed activities.
 - A brief profile of the service provider, including a discussion of the provider's qualifications and track record.
 - Letter of commitment or statement of work from the service provider describing the services to be provided, cost for the services, and clearly defined, agreed-upon deliverables with measurable success metrics.
2. The awardee is obligated to track funds spent on TABA activities separately from other award expenses and report the cumulative amount of TABA funds spent as part of each interim report submitted to NSF, and as part of the final report.
3. Prior approval from NSF is required to reallocate budgeted TABA funds for other types

of costs.

14. Allowable Costs

- a. The allowability of costs³ 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 governing cost principles as specified below and must conform with NSF policies, award special provisions and awardee internal policies in effect on the start date of the award.
- b. The cost principles that govern for-profit organizations can be found in the Federal Acquisition Regulation, 48 CFR Part 31.
- c. Certain prior approval requirements contained in the governing cost principles have been modified by Article Prior Approval Requirements.

15. Payments

- a. NSF SBIR/STTR awardees are required to request payments electronically through the Award Cash Management Service (ACM\$). Under ACM\$, awardees must provide award level detail at the time of the payment request. 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 [PAPPG Chapter VIII](#)
- b. In accordance with 2 CFR §200.305, where appropriate, the awardee is required to maintain advances of Federal funds in interest-bearing accounts. The awardees may retain interest earned on amounts up to \$500 per year for administrative expenses. Any additional interest earned on Federal advance payments deposited in interest-bearing accounts must be remitted annually to the Department of Health and Human Services Payment Management System (PMS) through an electronic medium using either the Automated Clearing House (ACH) network or a Fedwire Funds Service payment. Instructions on submission of remittances is contained in [PAPPG Chapter VIII.D.3](#).
- c. In the absence of an approved modification to this schedule, payments will be made by NSF as follows: A total of twenty-five percent (25%) of the award amount will be made available on the start date of the award, and an additional twenty-five percent (25%) upon approval by NSF of the first and second interim reports (see Article Project Reporting Requirements). The remainder of the funds, less \$25,000, will be made available upon approval by NSF of the third interim report. The final \$25,000 will be made available upon approval by NSF of a satisfactory final report and upon submission of a Project Outcomes Report, as described in Article Project Reporting Requirements and/or in the SBIR/STTR Program Solicitation.
- d. In accordance with 2 CFR §200.344, unless the Federal awarding agency authorizes an extension, awardees must liquidate all financial obligations incurred under the Federal award no later than 120 calendar days after the end date of the period of performance. NSF will financially close SBIR/STTR awards will financially close 120 days from after the period of performance award end date and the award will be removed from the ACM\$ payment screen for active awards.

To receive payment, SBIR/STTR awardees must register with the System for Award Management (SAM) at <https://www.sam.gov/>. NSF will use the awardees company name, address and electronic

³ Consistent with 2 CFR §200.453(c), for computing devices, charging as a direct cost is allowable for devices that are essential and allocable, but not solely dedicated, to the performance of the award.

funds transfer information from SAM to register the official address and banking information for payments. Next, the awardee should follow the instructions to register in ACM\$ at: [ACM\\$ Information](#). Failure to submit an acceptable final report will result in withholding of payment and may be grounds for suspension or termination of the grant.

16. Project Reporting Requirements

a. *General*

Payment of the award amount is conditioned upon the awardee's acceptance and compliance with the award terms and conditions which include contributing the approximate person-months proposed and delivery to NSF and its acceptance of required reports. The results of the awardees' efforts under this award are to be documented in the form of interim reports (3-5 pages) submitted on a six-month schedule and a final report. The intent of this reporting schedule is for the awardee to update NSF on the award progress at roughly the quarter-point, halfway-point, and three-quarter-point of the project, as measured by project effort. Therefore, with approval by the cognizant NSF Program Officer and the awardee organization, the timing of the interim reports can be altered based on project progress. The interim reports and the final report must be submitted electronically via Research.gov, and must include a completed, signed SBIR/STTR Project Status Form. The Project Reporting system may be accessed at <http://www.research.gov/>.

The interim reports and the final report must be approved by the cognizant NSF Program Officer prior to release of payment. In instances where a report is considered unacceptable, the cognizant NSF Program Officer will reject the report and will provide the awardee with a written explanation for non-acceptance.

b. *Interim Reports*

For each interim report, the awardee organization shall provide information, at a minimum, in the Participants/Organizations module in Research.gov. In addition, a progress narrative should be uploaded, which should include the following information:

1. **A brief executive summary of progress.** This should highlight key technical and commercial activity/results during the reporting period, with key upcoming activities. (1 page maximum)
2. **Update on technical progress.** Detailed discussion covering NSF-funded technical R&D activities and project progress. This narrative should include any R&D work done under the base Phase II award as well as any active supplements (e.g. TECP, Phase IIB, etc.). Include a brief description of each project objective where progress was made. For each Phase II milestone, the report should include an estimate of percentage completion. (3-5 pages suggested)
3. **Outcomes of Technical and Business Assistance activities.** A summary of outcomes, if any, from NSF funding provided for Technical and Business Assistance (TABAs) activities. (max 1 page)
4. **A brief discussion of updates or progress in areas other than NSF-funded technical R&D.** This could include, but is not limited to, customer and partner engagements, partnership activities, new team members, investment/fundraising activities, or any other fronts that relate to the technical or commercial potential of the underlying effort. (1-2 pages suggested)
5. **Problems encountered during the interim reporting period.** This could include any

issues or concerns, technical or otherwise. If none, so state. (2 pages maximum)

The PI must also include a completed SBIR/STTR Project Status Form, submitted to Research.gov as a "Special Requirement", to include reporting on total project spending and effort, level of effort for all senior personnel, project progress by milestone, as well as a number of certifications affirming key project requirements.

c. *Final Report*

As part of the Phase II final report, the Participants/Organizations module in Research.gov should be completed. In addition, the following documents should be uploaded as separate files:

1. A completed SBIR/STTR Project Status Form
2. A progress narrative (not to exceed 15 pages) which includes the same five sections as noted in section (b) above, but which covers the entire project duration;

The Phase II final report is due no later than 90 days after the end date of the award. The final report should 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.

d. *Project Outcomes Report for the General Public*

No later than 120 days following the end date of the award, 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. This report will be posted electronically by NSF exactly as it is submitted. For information about the content of the report, see the [PAPPG Chapter VII.D.3](#).

e. If the awardee does not submit all reports as described in Article Project Reporting Requirements and 2 CFR §200.344, NSF must proceed to close out the project with the information available within one year of the period of performance end date. If awardees do not submit all reports in accordance with this section, and 2 CFR §200.344 (Closeout), within one year of the period of performance end date, NSF must report the non-Federal entity's material failure to comply with the terms and conditions of the award with the OMB-designated integrity and performance system (currently FAPIIS). NSF may also pursue other enforcement actions per § 200.339.

17. Expenditure Reports

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

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.

For instructions regarding final disbursement reporting, see [PAPPG Chapter VIII.E](#).

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 and Ethical 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 USC §1862o-1) NSF requires that the awardee 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.

The awardee must designate one or more persons to oversee compliance with the RCR training requirement. The awardee is 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.

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

20. Reporting Fraud, Waste, and Abuse

a. Awardees must contact the OIG and the cognizant NSF Program Officer without delay when they first suspect fraud waste, or abuse. The OIG maintains a hotline to receive this information, which can be made through the OIG website at <https://oig.nsf.gov/contact/hotline> or by telephone at (800) 428-2189. Upon request, OIG will take appropriate measures to protect the identity of any individual who reports misconduct, as authorized by the Inspector General Act of 1978, as amended. Reports to OIG may also be made anonymously.

b. Examples of fraud, waste, and abuse relating to the SBIR/STTR program include, but are not limited to:

1. misrepresentations or material, factual omissions to obtain or otherwise receive funding under an SBIR/STTR award;
2. misrepresentations of the use of funds expended, work done, results achieved, or compliance with program requirements under an SBIR/STTR award;
3. fraud, theft, misuse, conversion, misappropriation, or embezzlement of SBIR/STTR award funds, including any use of award funds while not in full compliance with SBIR/STTR program requirements, or failure to pay taxes due on misused or converted SBIR/STTR award funds;

4. submission of a false claim or a false statement by any person in connection with any NSF SBIR/STTR program, activity, award, or operations;
5. concealment, forgery, falsification, or unauthorized destruction of government or program records;
6. fabrication, falsification, or plagiarism in applying for, carrying out, or reporting results from an SBIR/STTR award;
7. failure to comply with applicable federal costs principles governing an award;
8. extravagant, careless, or needless spending;
9. self-dealing, such as making a sub-award to an entity in which the PI has a financial interest without explicit NSF knowledge and approval;
10. acceptance by agency personnel of bribes, kickbacks, illegal gratuities, or gifts in exchange for grant or contract awards or other conflicts of interest that prevent the government from getting the best value; and,
11. Other violations of criminal or civil law, other violation of federal regulations, or other misconduct in connection with SBIR/STTR operations, programs, activities, or awards.

21. Reporting Subawards and Executive Compensation

This grant term was extracted verbatim from Appendix A to Part 170. For these purposes, the term “you” means the NSF awardee.

- a. Reporting of first-tier subawards.
 - i. Applicability. Unless exempt as provided in paragraph d. of this award term, you must report each action that equals or exceeds \$30,000 in Federal funds for a subaward to a non-Federal entity or Federal agency (see definitions in paragraph e. of this award term).
 - ii. Where and when to report.
 - (a) The non-Federal entity or Federal agency must report each obligating action described in paragraph a.1. of this award term to <http://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.)
 - iii. What to report. You must report the information about each obligating action that the submission instructions posted at <http://www.fsrs.gov> specify.
- b. Reporting total compensation of recipient executives for non-Federal entities.

- i. 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 Federal award equals or exceeds is \$30,000 or more as defined in 2 CFR §170.320;
 - (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/excomp.htm>.)
- ii. 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 <https://www.sam.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.
 - i. Applicability and what to report. Unless you are exempt as provided in paragraph d. of this award term, for each first-tier non-Federal entity subrecipient under this grant, the recipient 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>).

ii. 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:

i. Subawards,

and

ii. The total compensation of the five most highly compensated executives of any subrecipient.

e. Definitions. For purposes of this award term:

i. Federal Agency means a Federal agency as defined at 5 U.S.C. 551(1) and further clarified by 5 U.S.C. 552(f).

ii. Non-Federal 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; and,

(d) A domestic or foreign for-profit organization.

iii. Executive means officers, managing partners, or any other employees in management positions.

iv. 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 §200.331).

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

v. Subrecipient means a non-Federal entity or Federal agency 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.

vi. 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)).

22. System for Award Management and Universal Identifier Requirements

This award term was extracted verbatim from Appendix A to Part 25. For these purposes, the term "you" means the NSF awardee.

a. Requirement for System for Award Management

Unless you are exempted from this requirement under 2 CFR §25.110, you as the recipient must maintain current information in the SAM. This includes information on your immediate and highest level owner and subsidiaries, as well as on all of your predecessors that have been awarded a Federal contract or Federal financial assistance within the last three years, if applicable, until you submit the final financial report required under this Federal 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 Federal award term.

b. Requirement for Unique Entity Identifier

If you are authorized to make subawards under this Federal award, you:

i. Must notify potential subrecipients that no entity (see definition in paragraph C of this award term) may receive a subaward from you until the entity has provided its Unique Entity Identifier to you.

ii. May not make a subaward to an entity unless the entity has provided its Unique Entity Identifier to you. Subrecipients are not required to obtain an active SAM registration, but must obtain a Unique Entity Identifier.

c. Definitions

For purposes of this term:

- i. System for Award Management (SAM) means the Federal repository into which a recipient must provide information required for the conduct of business as a recipient. Additional information about registration procedures may be found at the SAM Internet site (currently at <https://www.sam.gov>).
- ii. Unique Entity Identifier means the identifier assigned by SAM to uniquely identify business entities.
- iii. Entity includes non-Federal entities as defined at 2 CFR §200.1 and also includes all of the following, for purposes of this part:
 - (a) A foreign organization;
 - (b) A foreign public entity;
 - (c) A domestic or foreign for-profit organization; and
 - (d) A Federal agency.
- iv. Subaward has the meaning given in 2 CFR §200.1.
- v. Subrecipient has the meaning given in 2 CFR §200.1.

23. Unpaid Federal Tax Liability

Article 23 applies only to awardees that are corporations.

In accordance with the Financial Services and General Governmental Appropriations Act, 2020, the awardee affirms that the corporation has no unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

24. Criminal Convictions

Article 24 applies only to awardees that are corporations.

In accordance with the Financial Services and General Governmental Appropriations Act, 2020, the awardee affirms that the corporation has not been convicted of a felony criminal violation under any Federal law within the preceding 24 months.

25. Copyrighted Material

a. Definition

Subject writing means any material that:

- i. is or may be copyrighted under Title 17 of the USC; and
- ii. 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 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.

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. In such cases, the standard clauses for Copyrighted Material or Patents Rights 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.

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.

26. 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, the awardee 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.

27. Publications

a. *Acknowledgment of Support*

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

- i. 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 Cooperative Agreement No. (NSF award number)."

- ii. 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 cognizant 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.

28. Intangible Property⁴

⁴ The awardee is 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.

The following Intangible Property article (implementing the Bayh-Dole Act., [35 U.S.C. §200 et seq.] shall apply to all awards for scientific or engineering research unless special provisions have been negotiated. The awardee shall include this article in all subawards for scientific or engineering research activities.

a. *Definitions*

- i. 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.).
- ii. 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.
- iii. 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.
- iv. MADE when used in relation to any invention means the conception or first actual reduction to practice of such invention.
- v. SMALL BUSINESS FIRM means a small business concern as defined at section 2 of Pub. L. 85-536 (15 U.S.C. 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.
- vi. 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 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.
- vii. 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 U.S.C. 102(b) as amended by the Leahy-Smith America Invents Act, Public Law 112-29.
- viii. 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 awardee 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 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 US 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*

- i. 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.
- ii. 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 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.
- iii. 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 US after a publication, on sale, or public use. If the awardee 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 awardee 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.
- iv. For any subject invention with NSF and awardee co-inventors, where NSF determines that it would be in the interest of the government, pursuant to 35 U.S.C. 207(a)(3), to file an initial patent application on the subject invention, NSF, at its discretion and in consultation with the awardee, may file such application at its own expense, provided that the awardee retains the ability to elect title pursuant to 35 U.S.C. 202(a).
- v. 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 an awardee 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 awardee will convey to NSF, upon written request, title to any subject invention:

- i. 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;
- ii. in those countries in which the awardee fails to file patent applications within the times specified in paragraph c. above, provided, however, that if the awardee 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 awardee shall continue to retain title in that country; or
- iii. in any country in which the awardee 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 Awardee*

- i. 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.
- ii. 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.
- iii. 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 30 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*

- i. 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.
- ii. 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, to assign to the awardee the entire right, title and interest in and to each subject invention made under the award, 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 US or foreign statutory bars.
- iii. For each subject invention, the awardee 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-award 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.
- iv. The awardee 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 award number) awarded by the National Science Foundation. The Government has certain rights in this invention.”
- v. The awardee 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 clause within two months of filing any domestic or foreign patent application.

g. *Subawards*

- i. The awardee 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 awardee in this Intangible Property article, and the awardee will not, as part of the consideration for awarding the

subaward, obtain rights in the subawardees' subject inventions.

- ii. 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*

Upon request, 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 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 awardee.

i. *Preference for United States Industry*

Notwithstanding any other provision of this Intangible Property article, 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 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 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 US 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 the NSF [PAPPG Chapter XI.D.1.1](#) 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 such action is necessary:

- i. 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;
- ii. to alleviate health or safety needs which are not reasonably satisfied by the awardee, assignee or their licensees;
- iii. to meet requirements for public use specified by Federal regulations and such

requirements are not reasonably satisfied by the awardee, assignee or licensee; or

- iv. 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. *Communications*

All communications required by this Patents Rights article must be submitted through the [iEdison Invention Information Management System](#) maintained by the National Institutes of Health unless NSF prior written 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.

29. Audit and Records

Financial records, supporting documents (including documentation of personnel expenses), statistical records and other records pertinent to this award must be retained by the awardee for a period of three years from award financial closeout as described in [PAPPG Chapter VIII.E](#), except as noted in 2 CFR §200.333.

30. 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 subrecipient under an award, the awardee shall provide and shall require its subrecipients to provide all reasonable facilities and assistance for the safety and convenience of the NSF 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.

31. Termination and Enforcement

a. Any suspension or termination action taken by NSF must be issued by a cognizant NSF Grants and Agreements Officer and will be in accordance with this article, 2 CFR §200.340, and [PAPPG Chapter XII.A](#).

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

1. By NSF, if the awardee fails to comply with the terms and conditions of a Federal award;
2. By NSF, to the greatest extent authorized by law, if an award no longer effectuates the program goals or agency priorities;
3. By NSF, with the consent of the awardee, in which case the two parties must agree upon the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated;
4. By the awardee upon sending to NSF written notification setting forth the reasons for such termination, the effective date, and, in the case of partial termination, the portion

to be terminated. However, if NSF determines in the case of partial termination that the reduced or modified portion of the NSF award will not accomplish the purposes for which the NSF award was made, NSF may terminate the Federal award in its entirety;

5. By NSF, pursuant to termination provisions included in the NSF award; or
6. By NSF, when ordered by the Deputy Director under NSF's Regulation on Research Misconduct [45 CFR Part 689].

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; NSF, however, 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 governing 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 governing 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. When an NSF award is terminated or partially terminated, both NSF and the awardee remain responsible for compliance with the requirements in 2 CFR §§200.344 and 200.345.

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

h. NSF will report award terminations to the OMB-designated integrity and performance system in accordance with Federal regulation, but only after the awardee has had an opportunity to exhaust the review procedures contained in [PAPPG Chapter XII.B](#). See also Article Project Reporting Requirements for additional information on FAPIIS.

32. 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 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 [PAPPG](#)

[Chapter XII.B.3.](#)

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

33. Price Reduction for Defective Cost or Pricing Data

a. If any price, including profit, negotiated in connection with this award, was increased by any significant amount because (1) the awardee or its subrecipient furnished cost or pricing data that were not complete, accurate and current as certified in its Certificate of Current Cost Pricing data, (2) a subrecipient or prospective subrecipient furnished the awardee cost or pricing data that were not complete, accurate and current as certified in its Certificate of Current Cost Pricing Data, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the award shall be amended to reflect the reduction.

b. Any reduction in the award price under paragraph a. above due to defective data from a prospective contractor that was not subsequently awarded the subaward shall be limited to the amount, plus applicable overhead and profit markup, by which the actual subaward price was not itself affected by defective cost or pricing data.

c. If the cognizant NSF Grants Officer determines under paragraph a. of this clause that a price or cost reduction should be made, the awardee agrees not to raise the following matters as a defense:

1. The awardee or subrecipient was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the award would not have been modified even if accurate, complete and current cost or pricing data had been submitted.
2. The cognizant NSF Grants Officer should have known that the cost or pricing data in issue were defective even though the awardee or subrecipient took no affirmative action to bring the character of the data to the attention of the cognizant NSF Grants Officer.
3. The awardee or subrecipient did not submit a Certificate of Cost or Pricing Data. Except as prohibited by c.3. of this article, an offset in an amount determined appropriate by the cognizant NSF Grants Officer based upon the facts shall be allowed against the amount of an award price reduction if:
 - The awardee certifies to the cognizant NSF Grants Officer that, to the best of the awardee's knowledge and belief, the awardee is entitled to the offset in the amount requested; and
 - The awardee proves that the cost or pricing data (or price of amendment) is accurate and that the data was not submitted before such date.

An offset shall not be allowed if:

- The understated data was known by the awardee to be understated when the Certificate of Cost or Pricing Data was signed; or The Government proves that the facts demonstrate that the award price would not have been increased in the amount to be offset even if the available data had been submitted before the date of agreement of price.

d. If any reduction in the award price under this article reduces the price for which payment was made prior to the date of the amendment reflecting the price reduction, the awardee shall be liable to and shall pay the United States at the time such overpayment is repaid simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the awardee to the date the Government is repaid by the awardee at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 USC 6621(a)(2).

34. Non-Discrimination Statutes

The award is subject to the provisions of Title VI of the Civil Rights Act of 1964 [42 USC §§2000d et seq.], Title IX of the Education Amendments of 1972 [20 USC §§1681 et seq.], the Rehabilitation Act of 1973 [29 USC §794], the Age Discrimination Act of 1975 [42 USC §§6101 et seq.], Equal Employment Opportunity [E.O. 11246], Limited English Proficiency (LEP) [E.O. 13166] 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.

35. 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 or co-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 or co-PI should promptly notify the cognizant NSF Program Officer.

36. Animal Welfare

a. Any awardee performing research on vertebrate animals⁵ 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 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 Academies of Sciences, 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, the awardee 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](#) Section IV.F.3. The cognizant NSF Program Officer also should be notified.

⁵ 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.

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

d. In the event the awardee's multi-project Assurance is cancelled or lapses, the awardee must immediately notify the cognizant NSF Grants and Agreements 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/>.

37. Research Involving Recombinant or Synthetic Nucleic Acid Molecules

If this award supports research involving recombinant or synthetic nucleic acid molecules, the awardee agrees to comply with the [Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules](#) (NIH Guidelines) including the procedural requirements and any subsequent revisions as they are published in the Federal Register. Further information on research awards that involve recombinant or synthetic nucleic acid molecules can be found in [PAPPG Chapter XI.B.2](#).

38. Clean Air and Water

(Applicable only if the award exceeds \$150,000, or a facility to be used has been the subject of a conviction under the Clean Air Act [42 USC §7413(c)(1)] or the Clean Water Act [33 USC §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 USC §7414] and Section 308 of the Clean Water Act [33 USC §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 issuance 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 issued 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 subaward.

39. 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]."

40. Life Sciences Dual Use Research of Concern (DURC)

This Article applies to all research, for which NSF award funds may be used, that potentially falls within the scope of [the US Government Policy for Institutional Oversight of Life Sciences Dual Use Research of Concern](#) as published in September 2014, hereafter referred to as the “Policy”. See also [PAPPG Chapter XI.B.5](#).

The awardee is responsible for monitoring the research progress and for implementation of all appropriate biosafety and biosecurity risk mitigation measures including compliance with all applicable laws and regulations related to that implementation, including the Policy specified above. (See also <https://osp.od.nih.gov/biotechnology/dual-use-research-of-concern/> for Frequently Asked Questions, case studies and other educational materials on DURC.)

41. Investigator Financial Disclosure Policy

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

42. Whistleblower Protection

The awardee is notified of the applicability of 41 USC §4712, as amended by P.L. 112-239, providing protection for whistleblowers.

43. State Sales and Use Taxes

The awardee is reminded that the governing cost principles cited in Article Allowable Costs limit the allowability of taxes to those the organization is required to pay. The awardee must avail itself 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.

44. Build America, Buy America

a. The awardee is subject to the Buy America Sourcing requirements under the Build America, Buy America provisions of the [Infrastructure Investment and Jobs Act](#) (IIJA) (P.L. 117-58, §§70911-70917) when using Federal funds for the purchase of goods, products, and materials on any form of construction, alteration, maintenance, or repair of infrastructure in the United States regardless of the appropriation.

These sourcing requirements require that all iron, steel, manufactured products, and construction materials used in Federally funded infrastructure projects must be produced in the United States. The awardee must implement these requirements in its procurements, and this article must flow down to all subawards and contracts at any tier. For legal definitions and sourcing requirements, the awardee must consult NSF’s Implementation of the Act on the [Build America, Buy America website](#).

b. When supported by rationale provided in IIJA §70914, the awardee must submit a waiver request to the cognizant NSF Program Officer and Grants and Agreements Officer. Non-compliant purchases must not be made in advance of waiver approval. Guidance on the submission of an NSF waiver request is available on the [Build America, Buy America website](#).

45. Recipient Integrity and Performance Matters

The awardee must fully comply with the requirements stipulated in [Appendix XII to Part 200](#) of 2 CFR §200, entitled “Award Term and Condition for Recipient Integrity and Performance Matters.” See also Article Termination and Enforcement of these terms and conditions for NSF’s responsibilities regarding reporting award terminations to the OMB-designated integrity and performance system in accordance with Federal regulation. In addition, Article Project Reporting Requirements specifies NSF responsibilities to report in FAPIIS an awardee’s failure to submit all required reports.

46. Breach of Personally Identifiable Information

An awardee that uses or operates a Federal information system or creates, collects, uses, processes, stores, maintains, disseminates, discloses, or disposes 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. The awardee must notify NSF upon learning that a breach of PII within the scope of an NSF award has occurred.

47. Post-award Disclosure of Current Support and In-Kind Contribution Information

If an organization discovers that a PI or co-PI on an active NSF award failed to disclose current support or in-kind contribution information⁶ as part of the proposal submission process (see [PAPPG Chapter II.C.2.h](#)), the AOR must submit the following information within 30 calendar days of the identification of the undisclosed current support or in-kind contribution through use of the “Other Request” category in the Notification and Request Module in Research.gov.⁷

Post-award Disclosure of Project Support Information:

1. PI/co-PI Name:
2. Project Title:
3. Award Number (if available):
4. Source of Support:
5. Primary Place of Performance:
6. Project Start and End Date:
7. Total Award Amount (including Indirect Costs): \$
8. Brief Description of the Major goals of the project:
9. Description of any Overlap/Duplication of the project with the NSF award:
10. Impact on the ability of the PI/co-PI to carry out the NSF award:
11. Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project:
 - a. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
 - b. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
 - c. Enter the applicable year: (e.g., 2020, 2021):

⁶ The post-award disclosure requirement applies to current support (including in-kind contributions) that was active as of the date the proposal was submitted to NSF. See [NSF Pre-award and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending Support](#) which has been developed to assist users in determining the types of activities that must be disclosed.

⁷ The requisite information must be entered into the box entitled, “Proposed Change” with the box entitled, “Justification for Change” stating, “See above”.

- i. Enter the number of person-month(s) (or partial person-months):
- d. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
- e. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):

Post-award Disclosure of In-Kind Contribution Information

1. PI/co-PI Name:
2. Source of Support:
3. Primary Place of Performance:
4. Summary of In-kind Contributions:
5. Description of any Overlap/Duplication of the project with the NSF award:
6. Impact on the ability of the PI/co-PI to carry out the NSF award:
7. Person-Month(s) (or Partial Person-Months) Per Year Committed to the Project:
 - a. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
 - b. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
 - c. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
 - d. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
 - e. Enter the applicable year: (e.g., 2020, 2021):
 - i. Enter the number of person-month(s) (or partial person-months):
8. Dollar Value of In-kind Contribution: \$

Upon receipt and review of the information provided, NSF may consult with the AOR, or designee, if necessary. Based on the results of this review, the Foundation will determine the impact of the new information on the NSF-funded award, and, where necessary, take appropriate action.

48. Fee Payments

Payment of fee is allowable only if expressly authorized by solicitation and the terms and conditions of the NSF award.

49. Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019

Section 889 of the National Defense Authorization Act (NDAA) for Fiscal Year (FY) 2019 (Public Law 115-232) prohibits the head of an executive agency from obligating or expending loan or grant funds to procure or obtain, extend, or renew a contract to procure or obtain, or enter into a contract (or extend or renew a contract) to procure or obtain the equipment, services, or systems as identified in section 889 of the NDAA for FY 2019.

- a. In accordance with 2 CFR §200.216 and §200.471, for all awards that are issued on or after August 13, 2020, recipients and subrecipients are prohibited from obligating or expending loan or grant funds to:
 - i. Procure or obtain;

- ii. Extend or renew a contract to procure or obtain; or
- iii. Enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115-232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - (a) For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - (b) Telecommunications or video surveillance services provided by such entities or using such equipment.
 - (c) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- b. In implementing the prohibition under Public Law 115-232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
- c. See Public Law 115-232, section 889 for additional information.

50. Debarment and Suspension

The awardee shall fully comply with the requirements stipulated in Subpart C of 2 CFR Part 180, entitled "[Responsibilities of Participants Regarding Transactions](#)" as supplemented by NSF's regulations at 2 CFR Part 2520.

The awardee 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.

51. Changes to the Cooperative Agreement

The Awardee may request changes or additions to the cooperative agreement. Any such changes must

be set forth in writing, agreed to by NSF and approved by the cognizant NSF Grants and Agreements Officer.

52. Limitation of Funds

This award shall be limited to amounts currently obligated to the award. The awardee bears the risk of making its own obligations, expenditures, or commitments above the current obligation of funds on this award and under no circumstance is NSF required to increase the award ceiling to accommodate additional obligations, expenditures, or commitments.

53. Ensuring Adequate COVID-19 Safety Protocols

a. This clause implements Section 3(b) of Executive Order 14042, Ensuring Adequate COVID Safety Protocols for Federal Contractors, dated September 9, 2021 (published in the Federal Register on September 14, 2021, 86 FR 50985). Note that the Department of Labor has included “cooperative agreements” within the definition of “contract-like instrument” in its rule referenced at Section 2(e) of this Executive Order, which provides:

For purposes of this order, the term “contract or contract-like instrument” shall have the meaning set forth in the Department of Labor’s proposed rule, “Increasing the Minimum Wage for Federal Contractors,” 86 Fed. Reg. 38816, 38887 (July 22, 2021). If the Department of Labor issues a final rule relating to that proposed rule, that term shall have the meaning set forth in that final rule.

b. The awardee must comply with all guidance, including guidance conveyed through Frequently Asked Questions, as amended during the performance of this award, for awardee workplace locations published by the Safer Federal Workforce Task Force (Task Force Guidance) at <https://www.saferfederalworkforce.gov/contractors/>.

c. *Subawards.* The awardee must include the substance of this clause, including this paragraph (c), in subawards at any tier that exceed the simplified acquisition threshold, as defined in Federal Acquisition Regulation 2.101 on the date of subaward, and are for services, including construction, performed in whole or in part within the United States or its outlying areas. That threshold is presently \$250,000.

d. *Definition.* As used in this clause -

United States or its outlying areas means—

1. The fifty States;
2. The District of Columbia;
3. The commonwealths of Puerto Rico and the Northern Mariana Islands;
4. The territories of American Samoa, Guam, and the United States Virgin Islands; and
5. The minor outlying islands of Baker Island, Howland Island, Jarvis Island, Johnston Atoll, Kingman Reef, Midway Islands, Navassa Island, Palmyra Atoll, and Wake Atoll.

e. The Foundation will take no action to enforce this article, where the place of performance identified in the award is in a U.S. state or outlying area subject to a court order prohibiting the application of requirements pursuant to the Executive Order (hereinafter, "Excluded State or Outlying Area". A current list of such Excluded States and Outlying Areas is maintained at <https://www.saferfederalworkforce.gov/contractors/>.

54. Resolution of Conflicting Conditions

Should there be any inconsistency between any special condition(s) specified in the award notice and these SBIR/STTR Phase II Cooperative Agreement General Conditions, the special conditions in the award notice shall govern.

Should there be any inconsistency between these SBIR/STTR Phase II Cooperative Agreement General Conditions and any NSF solicitation cited or incorporated by reference in the award notice, the matter should be referred to the cognizant NSF Grants and Agreements Officer for guidance.

55. 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 cognizant 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 Division Director, Division of Grants and Agreements (DGA), 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 [PAPPG Chapter XII.B.3](#).

Other Considerations

56. 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 award, whether with respect to persons or property of the awardee or third parties. The awardee is advised to insure or otherwise protect itself or others, as it may deem desirable.

57. Sharing of Findings, Data and Other Research Products

a. When doing so would not negatively impact any proprietary or commercial interest of the awardee(s), 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. With the same caveat, 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. With the same caveat, it also encourages the awardee 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.

58. Partnerships with Foreign Collaborators

The NSF must have advance knowledge of proposed or funded awardee activities with foreign entities.

Accordingly, prior to making a commitment to such foreign entities as described above, and prior to negotiating the terms of any potential international agreement, the awardee shall submit to the NSF advance notification of proposed plans for international scientific cooperative programs that involve the use of personnel, facilities and/or services or in-kind contributions.

Advance notification to the NSF should identify the projects and individuals involved and the purpose of the cooperative program, and should specify the duration, location and magnitude of the proposed activity.

These provisions are not intended to require notifications to the NSF of the routine use of the awardee's services and facilities by foreign investigators or the routine use of foreign facilities by awardee staff in accordance with the awardee's standard policies and procedures.

59. 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 US are coordinated as necessary with appropriate US and foreign government authorities and that necessary licenses, permits or approvals are obtained prior to undertaking the proposed activities.