EXHIBITS

CHAPTER I

Questions and Answers About the Advanced Technology Program (ATP)

A. General Information

1. What is ATP?

In 1990 ATP began to provide cost-shared funding to industry to accelerate the development and broad dissemination of challenging, high-risk technologies that promise significant commercial payoffs and widespread benefits for the nation. This unique government-industry partnership aids companies in accelerating the development of emerging or enabling technologies that lead to revolutionary new products and industrial processes and services that can compete in rapidly changing world markets. ATP challenges the research and development (R&D) community to take on higher technical risk projects with commensurately higher potential payoffs for the nation than they would otherwise pursue. The ATP statutory authority is 15 U.S.C. § 278n (see Appendix A or http://www.atp.nist.gov/ atp/helpful.htm)¹. The ATP implementing regulations are set forth in 15 C.F.R. Part 295 (see Appendix B or http://www.atp.nist.gov/ atp/helpful.htm).

2. Who may apply?

A U.S.-owned, single, for-profit company or an industry-led joint venture may apply. See Section B of this chapter for more details.

3. How can I receive funding?

You must submit a proposal to ATP in response to a solicitation/request for proposal published by ATP. Notices are published in the *Federal Register* announcing the availability of ATP funds and are posted on the ATP website (http://www.atp.nist.gov).

4. What information is required in an ATP proposal?

Information requirements are discussed in detail in Chapters 2 and 3 of this *Proposal Preparation Kit.* ATP reviews proposals under a multi-stage and sequential review process; therefore, prescribed information is requested at different stages called gates.

5. How many gates are in ATP's proposal submission process?

There are four gates, as follows:

Gate 1: Detailed information addressing the scientific and technological merit selection criterion and preliminary information addressing the potential for broad-based economic benefits selection criterion are submitted. If the information is determined to meet the selection criteria, the proposer is notified that the proposal has passed the Gate 1 stage and is asked to submit the required Gate 2 information.

¹Websites listed in this publication are accurate as of the publishing date. Check www.atp.nist.gov/atp/helpful.htm for updates to websites.

Gate 2: Detailed information addressing the potential for broad-based economic benefits selection criterion and the Budget Narrative are submitted. If the information submitted is determined to have high merit, the proposer is notified that the proposal has been selected as a semi-finalist and proceeds to Gate 3.

Gate 3: An invitation to the National Institute of Standards and Technology/ATP for an oral review is issued. Required forms and additional documentation are submitted, as requested by ATP. After the oral review, if ATP determines, based on all the information received, that the proposal has high merit, the proposal is considered a finalist and is recommended to the Selecting Official. If selected by the Selecting Official, the proposal proceeds to Gate 4.

Gate 4: If the proposal is selected, the final award is processed and issued and funding begins.

6. How are proposals submitted?

Proposals may be submitted either electronically or in hardcopy. Electronic submissions are encouraged and save the proposer mailing and copying fees. See Chapter 2, Section A, for format instructions and Chapter 2, Section B, for electronic submission guidance. Also visit the ATP Electronic Submission System website at http://ess.atp.nist.gov, which provides instructions and tools for submitting ATP proposals securely over the Internet.

7. Will confidential/proprietary information in my proposal be protected?

Yes. All individuals who have access to proposals must sign nondisclosure agreements. The government will protect confidential/proprietary information about business operations and trade secrets possessed by any company or participant to the full extent of the law. Such information will be withheld from disclosure pursuant to the following statutes which can be found at http://www.atp. nist.gov/atp/helpful.htm.

- a. ATP Statute—15 U.S.C. § 278n(d)(5).
- b. Trade Secrets Act—18 U.S.C. § 1905.
- c. Freedom of Information Act (FOIA)— 5 U.S.C. § 552(b).
- d. Economic Espionage Act—18 U.S.C. § 1832.

In view of the above, proposers are advised that proposals are unlikely to be competitive if significant technical and/or business details are omitted due to the proposer's reluctance to reveal confidential information.

8. Where can I seek help with preparing my proposal?

- a. Visit the ATP Alliance Network website at http://www.atp.nist.gov/alliance/welcome.htm, which provides useful tools for creating and managing R&D partnerships. The website offers interactive forums such as the Collaboration Bulletin Board, through which potential proposers can anonymously post their interest in finding a partner, and the R&D Alliances Forum, where individuals can exchange their ideas and questions about high-risk R&D alliances.
- b. Contact the NIST Manufacturing Extension Partnership (MEP), a nationwide network of locally managed extension centers whose sole purpose is to provide small- and medium-sized manufacturers with the help they need to succeed. The centers provide guidance to hightechnology companies seeking resources and

teaming relationships that help with commercialization efforts. To contact a MEP center, call 1–800–MEP-4–MFG (1–800–637–4634) or visit MEP's website at http://www.mep. nist.gov.

c. Contact state agencies.

9. Does ATP hold any public meetings or conferences to assist in proposal preparation?

Yes. ATP typically holds one or more proposers' conferences per year. These meetings provide general information regarding the program, tips on preparing proposals, and the opportunity for questions and answers. Proprietary technical or business discussions about specific project ideas with NIST staff are not permitted at the public meeting(s) or at any time before submitting the proposal to ATP. Therefore, you should not expect to have proprietary issues addressed at the public meeting(s).

Attendance at ATP proposers' conferences is not required; many successful ATP recipients have not attended a proposers' conference. However, those who have attended said they found the information helpful. Information regarding dates and locations of ATP proposers' conferences is published in the *Federal Register* and posted on the ATP website. Additionally, all those on the ATP mailing list (http://www.atp.nist.gov/atp/ atpform.htm) are notified when the conferences are announced.

Presentation materials from proposers' conferences will be made available on the ATP website.

NIST/ATP staff will not critique proprietary project ideas while they are being developed by a

proposer. However, NIST/ATP staff will, at any time, answer questions that you may have about our project selection criteria, selection process, eligibility requirements, cost-sharing requirements, and the general characteristics of a good ATP project.

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10. Is there a deadline for submitting an ATP proposal?

Yes. The deadline date(s) will be published in the *Federal Register* and posted on the ATP website. Once an ATP solicitation/request for proposal is published, proposals may be submitted until the deadline date(s). The most up-to-date information about ATP competitions is posted on the ATP website. In addition, you can have your name added to the ATP mailing list (http://www.atp. nist.gov/atp/atpform.htm) so that you are notified when a new competition is announced.

11. Where do I submit proposals?

Proposals should be submitted to either of the following locations and not directly to ATP staff:

- a. Electronic: use the downloadable forms and the Forms Viewer at (http://ess.atp.nist.gov).
- b. Hardcopy:

Advanced Technology Program National Institute of Standards and Technology Administration Building 101, Room A413 100 Bureau Drive, Stop 4701 Gaithersburg, MD 20899–4701

12. Whom do I contact if I have questions?

Subject Area	Point of Contact
Competition process, project selection criteria, or other programmatic questions	Bettijoyce Lide Phone: 301–975–2218 Fax: 301–926–9524 E-mail: bettijoyce.lide@nist.gov
Eligibility and cost-sharing requirements, budgets, or other administrative questions	Barbara Lambis Phone: 301–975–4447 Fax: 301–869–1150 E-mail: barbara.lambis@nist.gov
Human and/or animal subjects used in research	Human and Animal Subjects Advisor Phone: 301–975–8779
Electronic proposal submission	John Garguilo Phone: 301–975–4426 Fax: 301–926–9524 E-mail: john.garguilo@nist.gov
Foreign participation as single-company proposers, joint ventures, or subcontractors	Connie Chang Phone: 301–975–4318 Fax: 301–975–4776 E-mail: connie.chang@nist.gov

B. Eligibility

1. Who is eligible to apply?

U.S.-owned, single, for-profit companies and industry-led joint ventures may apply for ATP funding. In addition, companies incorporated in the United States that have parent companies incorporated in another country may apply as discussed in Section 3 below. The term *company* means a for-profit organization, including sole proprietorships, partnerships, limited-liability companies (LLCs), and corporations (15 C.F.R. § 295.2).

 a. Single Company—a single small, medium, or large for-profit company, including an LLC. The single company must be substantially involved in the R&D, with a leadership role in programmatically steering the project and facilitating definition of the research agenda.

b. **Joint Venture**—at least two separately owned for-profit companies, both of which are substantially involved in the R&D and both of which are contributing to the cost-sharing requirement. ATP joint ventures consist of companies that formally agree (i.e., sign a Joint Venture Agreement as discussed in Chapter 2, Section C) to collaborate on the R&D and establish an effective plan to commercialize the technology if successful. In addition to comprising at least two separately owned for-profit companies, a joint venture may include additional for-profit companies and other organizations that perform research and that may or may not contribute nonfederal funds to the project.

2. Can universities, government laboratories, independent research organizations, and nonprofit organizations participate?

Yes. Universities, government laboratories (excluding NIST laboratories), independent research organizations, and nonprofit organizations may participate in an ATP project in the following two ways:

- a. As subcontractors to a single company or to a joint venture.
- b. As additional partners in a joint venture. In addition to a for-profit company, any one of these four types of organizations (universities, government laboratories, independent research organizations, and nonprofit organizations) can serve as the catalyst to organize a joint venture. However, of these four types of organizations, only an independent research organization or a nonprofit organization may submit a proposal on behalf of a joint venture and administer the project, provided that the following two conditions are met:
 - As described above, the joint venture must include at least two separately owned for-profit companies, both substantially involved in the R&D and both contributing to the cost-sharing requirement.
 - (2) The joint venture must be industry led. In other words, the industrial partners must take a leadership role in programmatically steering the project, facilitate definition of the research agenda, be substantially involved in the R&D, and commit to the commercialization plans if the technology is successfully developed.

3. Can a foreign-owned company apply for ATP funding?

Yes, provided that certain requirements are met. A company incorporated in the United States that has a parent company incorporated in another country is eligible to apply for and receive an ATP award if it meets the conditions in the ATP legislation (15 U.S.C. § 278n(d)(9)) and regulations (15 C.F.R. § 295.3). Before making the final award, ATP will make a foreign-eligibility finding based on these conditions regarding the company's participation in the ATP project. The foreign eligibility finding involves the collection of evidence of whether the following conditions are met:

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- a. the company's participation in the ATP project is in the economic interest of the United States, and
- b. the home country of the parent company provides all of the following:
 - (1) comparable opportunities for U.S.-owned companies to participate in governmentfunded programs similar to ATP,
 - (2) comparable local investment opportunities for U.S.-owned companies, and
 - (3) adequate and effective protection of U.S.owned intellectual property rights.

ATP takes responsibility for gathering information related to the above requirements. The submitting organization must provide information in the Gate 2 submission (see Chapter 2) related to the role of the foreign-owned company in the project to help address foreign eligibility requirement 3.a above. Evidence that the company's participation is in the economic interest of the United States includes the following:

- a sound justification that the involvement by the company is necessary to achieve the technical or commercial objectives of the project;
- b. documentation that the company makes investments in research, development, and manufacturing in the United States;
- c. documentation that the company makes significant contributions to employment in the United States;

- d. documentation that the company agrees to promote the manufacture of products within the United States resulting from ATP-supported technology and to procure supplies from competitive U.S. suppliers; and
- e. other aspects relevant to the project's potential to produce broad-based economic benefits for the United States.

4. Is a foreign-eligibility finding required for foreign subcontractors?

No. The submitting organization, however, must justify the use of foreign-owned or foreignlocated subcontractors or subsidiaries and explain how their participation will benefit the U.S. economy. The submitting organization should state how and why U.S. sources were judged to be unavailable and inadequate in meeting the project goals.

5. Can a foreign-owned company without a U.S.-incorporated subsidiary receive an ATP award?

No. Foreign-owned companies located outside the United States cannot receive an ATP award. According to ATP's founding legislation, only U.S.-owned companies and U.S. subsidiaries of foreign-owned companies that meet certain requirements are eligible to receive ATP funding.

6. Can a company owned by non-U.S. citizens and without a foreign parent company receive an ATP award?

No. However, a company that is incorporated in the United States and owned by one or more non-U.S. citizen green-card holders but that does not have a foreign parent company may apply for an ATP award, but it cannot receive any funding unless the ownership issue has been resolved (e.g., the owner has since become a U.S. citizen, or ownership has been transferred to a U.S. citizen or citizens) before final award selections. Awards will not be deferred for this issue to be resolved.

7. Where can I find additional information regarding foreign-owned company eligibility?

Additional information is available in the ATP booklet ATP Eligibility Criteria for U.S. Subsidiaries of Foreign-Owned Companies: Legislation, Implementation, and Results, which is available at http://www.atp.nist.gov/eao/ ir-6099/contents.htm.

C. Selection Criteria and Selection Process

1. What selection/evaluation criteria are used to select ATP proposals for funding?

The evaluation criteria used to select a proposal for funding and their respective weights are found in 15 C.F.R. § 295.6 and are listed below. No proposal will be funded unless ATP determines that it has scientific and technological merit and that the proposed technology has strong potential for broad-based economic benefits for the nation. Additionally, no proposal will be funded that does not require federal support, that is product development rather than high-risk R&D, that does not display an appropriate level of commitment from the proposer, and that does not have adequate technical and commercialization plans. Meeting the scientific and technological merit criterion will not make up for major flaws in the potential for broad-based economic benefits selection criterion and vice versa. Detailed guidance on how to address the selection criteria is provided in Chapter 3.

APPENDICES

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a. Scientific and Technological Merit (50 percent). This selection criterion has three critical components: (1) Technical Innovation, (2) Technical Risk With Evidence of Scientific Feasibility, and (3) Technical Plan.

The proposed technology must be highly innovative. The research must be challenging, with high technical risk. It must be aimed at overcoming an important problem (or problems) or exploiting a promising opportunity. The technical leverage of the technology must be adequately explained. The research must have a strong potential for advancing the state of the art and contributing significantly to the U.S. scientific and technical knowledge base. The technical plan must be clear and concise and must clearly identify the core innovation, the technical approach, the major technical hurdles, and the attendant risks, and it must clearly establish feasibility through adequately detailed plans linked to major technical barriers. The plan must address the questions of "what, how, where, when, why, and by whom" in substantial detail. ATP will assess the proposing team's relevant experience for pursuing the technical plan. The team carrying out the work must demonstrate the high level of scientific/technical expertise needed to conduct the R&D and have access to the necessary research facilities.

b. Potential for Broad-Based Economic Benefits (50 percent). This selection criterion has three critical components: (1) National Economic Benefits, (2) Need for ATP Funding, and (3) Pathway to Economic Benefits.

The proposed technology must have a strong potential to generate substantial benefits for the nation that extend significantly beyond the direct returns to the proposing organization(s). The proposal must explain why ATP support is needed and what difference ATP funding is expected to make in terms of what will be accomplished with the ATP funding versus without it. The pathway to economic benefits must be described, including the proposer's plan for getting the technology into commercial use as well as additional routes that might be taken to achieve broader diffusion of the technology. The proposal should identify the expected returns that the proposer expects to gain as well as returns that are expected to accrue to others-that is, spillover effects. ATP will assess the proposer's relevant experience and level of commitment to the project; the project's organizational structure and management plan, including the extent to which participation by small businesses is encouraged and is a key component in a joint venture proposal; and for large single-company proposers, the extent to which subcontractor/subrecipient teaming arrangements are featured and are a key component of the proposal.

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2. How are proposals selected for funding?

All proposals are selected based on a peer-review process, as described in 15 C.F.R. § 295.4. Proposals judged through Gates 1 and 2 to have sufficient merit based on the established selection criteria receive further consideration and are referred to as *semifinalists*. Semifinalist proposers will be invited to NIST/ATP for an oral review (Gate 3) of their proposals. In some cases, site visits may be required. Semifinalist proposals are then ranked, and the Selecting Official selects funding recipients based on the ranking, the availability of funds, the adherence to ATP selection criteria, and the appropriate distribution of funds among technologies and their applications. NIST reserves the right to deny awards in any case where a reasonable doubt exists regarding a proposer's ability to comply with ATP requirements or to handle federal funds responsibly. All funding decisions are final and cannot be appealed. NIST/ATP reserves the right to negotiate the cost and scope of the proposed work with the proposers that have been selected to receive awards. For example, NIST/ATP may

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require that the proposer delete from the scope of work a particular task that is deemed by NIST/ATP to be product development or otherwise inappropriate for ATP support.

3. What are the most common reasons that a proposal submitted to ATP is not successful?

- a. Lack of clear definition of technical risks or barriers that prevent progress on the commercial front. Less competitive proposals often fail to answer the question, "What technical issue or issues are preventing you from exploiting this technology for this class of applications?"
- b. Lack of an innovative technological approach—that is, the concept or end products may be innovative, but reaching the goal is based on state-of-the-art techniques that will not be advanced.
- c. Lack of detail in the technical plan or failure to clearly describe how the path to innovation will be accomplished. For example:
 - Use of a trial-and-error approach to generate new products or processes based on state-of-the-art techniques that does not result in advancing the methodology beyond trial and error.
 - (2) Risks in the project not described at the scientific level other than that the approach may not work as expected, or there is no clear identification of alternatives for various risks at each step in the R&D.
 - (3) Straightforward scale-ups based on standard engineering practices and state-ofthe-art techniques that will not advance scale-up methodology (e.g., faster, better, cheaper the next time).

- (4) Use of proprietary techniques that are already developed in-house to generate novel products or processes where there is no expectation to move the technique(s) to a next-generation advancement.
- d. A general description of the market opportunity with no specific market segment analysis of, for example, size, sales, potential customers, and competitors.
- e. Lack of detail about the approach to be taken to commercialize the technology after the ATP project ends, or failure to address market opportunity.
- f. Unconvincing case for the need for ATP funding, or the difference that ATP can make, and failure to describe actions taken to secure non-ATP funding (including evidence of the results of those actions).

D.Ineligible Projects and Ineligible Costs

1. What types of projects are ineligible for ATP funding?

- a. Straightforward improvements of existing products or product development.
- b. Projects that are basic research.
- c. Projects that are Phase II, III, or IV clinical trials.
- d. Pre-commercial-scale demonstration projects where the emphasis is on demonstrating that some technology works on a large scale or is economically sound rather than on R&D that extends the state of the art.
- e. Projects that ATP believes would likely be completed without ATP funds in the same time frame or nearly the same time frame or with the same scale or scope.

f. Predominantly straightforward, routine data gathering (e.g., creation of voluntary consensus standards, data gathering/ handbook preparation, testing of materials, or unbounded research aimed at basic discovery science) or application of standard engineering practices.

- g. Projects that are simply a follow-on or a continuation of tasks previously funded in ATP projects from essentially the same proposing team.
- h. Projects in which the only risk is market oriented—that is, the risk that the end product may not be embraced by the marketplace.

2. What types of costs are ineligible/unallowable?

The following items, regardless of whether they are allowable under the federal cost principles, are unallowable under ATP:

- a. Marketing, sales, or commercialization costs, unless they are included in a federally approved indirect cost rate.
- b. Costs for the construction of new buildings or extensive renovations of existing laboratory buildings. However, costs for the construction of experimental research and development facilities to be located within a new or existing building are allowable provided that the equipment or facilities are essential for carrying out the proposed scientific and technical project and are approved by the NIST Grants Officer.
- c. Indirect costs for single-company recipients, which must be absorbed by the company.
 (Note that with large businesses submitting proposals as single-company proposers, indirect costs absorbed by the large business may be used to meet the cost-sharing requirement.)
- d. Bid and proposal costs, tuition costs, and costs for marketing surveys, commercialization

studies, and general business planning, unless they are incorporated into a federally approved indirect cost rate. However, a university participating in an ATP project as a subcontractor or as a joint venture partner may charge ATP for tuition remission or other forms of compensation in lieu of wages paid to university students working on ATP projects but only as provided in OMB Circular A-21, Section J.41. In such cases, tuition remission would be considered a cash contribution rather than an in-kind contribution.

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- e. For research involving human and/or animal subjects, any costs used to secure Institutional Review Board or Institutional Animal Care and Use Committee approvals before the award or during the award.
- f. Relocation costs, unless they are included in a federally approved indirect cost rate.
- g. Office furniture costs, unless they are included in a federally approved indirect cost rate.
- h. Costs for general purpose office equipment and supplies that are not used exclusively for the research—for example, office computers, printers, copiers, paper, pens, and toner cartridges.
- i. Subcontractor expenses such as those for office supplies and conferences/workshops.
- j. Patent costs and legal fees, unless they are included in a federally approved indirect cost rate.
- k. Profit, management fees, interest on borrowed funds, or facilities capital cost of money.
- Subcontracts to another part of the same company or to another company with identical or nearly identical ownership. Work proposed by another part of the same company or by another company with identical or nearly identical ownership should be shown as funded through interorganizational transfers

that do not contain profit. Interorganizational transfers should be broken down in the appropriate budget categories.

3. Can a university employee establish a company and subcontract back to his/her university?

Generally no. This would present a conflict of interest. However, under certain circumstances, for example, if the university's participation is unique and essential to the project, the subcontracting arrangement may be considered. In such a case, the organization/individual with the conflict of interest may not benefit or profit from the subcontract. For more information, see the Codes of Conduct guidance in 15 C.F.R. § 14.42 (http://www.atp.nist.gov/atp/helpful.htm).

4. Can an individual who has a financial or other interest in a company receive a subcontract from that company?

Generally no. See the answer to D.3 above.

5. Will ATP fund research performed outside the United States?

Possibly. Although ATP is not precluded from funding research performed outside the United States, proposals involving significant research outside the United States would likely be less competitive when evaluated against the ATP selection criterion related to how national economic benefits accrue to the United States. Any proposed use of a foreign subcontractor or a foreign-located organization must be justified in the proposal. This justification must include why the work or services cannot be performed equivalently or obtained in the United States.

E. Funding and Cost Sharing

How much funding can a company/ organization receive, and is cost sharing required?

a. A single company can receive up to a total of \$2 million for R&D activities for up to 3 years. ATP funds may only be used to pay direct costs for single-company recipients. Single-company recipients are responsible for funding all of their indirect/overhead costs. Small- and medium-sized companies applying as single-company proposers are not required to provide cost sharing of direct costs; however, they may pay a portion of the direct costs if they propose to, in addition to all indirect costs throughout the project. If a single company proposes to pay direct costs, it will become a requirement of the award. The company will be responsible for meeting its committed cost share in accordance with its approved budget throughout the award.

Large companies applying as single-company proposers must cost share at least 60 percent of the yearly total project costs (direct plus all of the indirect costs). A *large company* is defined as any business, including any parent company plus related subsidiaries, having annual revenues in excess of \$3.043 billion. (Note that this number will likely be updated annually and will be noted in future annual announcements of availability of funds and revised editions of the *ATP Proposal Preparation Kit.*)

b. A joint venture can receive funds for R&D activities for up to 5 years with no funding limitation other than the announced availability of funds. Joint ventures must cost share more than 50 percent of the yearly total project costs (direct plus indirect costs).

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If an award is issued to a joint venture, each joint venture participant will be responsible for meeting its committed cost share in accordance with its approved budget throughout the award. No joint venture participant will be responsible for the cost-share commitment of any other joint venture participant. However, with the agreement of the joint venture participants, along with notification to the NIST Grants Officer, a joint venture participant that has exceeded its cost-share commitment may allow its excess cost share to be applied to the cost-share deficit of another joint venture participant, so that the overall joint venture cost share is met.

2. How does ATP define cost sharing?

Cost sharing is that portion of the project costs not borne by the federal government and includes direct and indirect costs. Sources of revenue to satisfy the required cost share include cash and in-kind contributions. Cash contributions can be from recipient, state, county, city, or other nonfederal sources. In-kind contributions can be made by recipients or nonfederal third parties (excluding subcontractors) and can include, but are not limited to, equipment, research tools, software, and supplies. Except as specified in 15 C.F.R. § 295.25, the value of in-kind contributions shall be determined in accordance with 15 C.F.R. § 14.23. The value of in-kind contributions will be prorated according to the share of total use dedicated to the ATP project. Labor/personnel costs are not in-kind contributions: they are cash contributions. ATP limits the total value of inkind contributions that can be used to satisfy the cost share to 30 percent of the nonfederal share of the total project costs.

Any cost sharing must be in accordance with the "cost sharing or matching" provisions of 15 C.F.R. Part 14, *Uniform Administrative Requirements for Grants and Cooperative Agreements* With Institutions of Higher Education, Hospitals, Other Non-Profit, and Commercial Organizations (http://www.atp.nist.gov/atp/helpful.htm).

Additionally, as with the federal share, any costs included as cost share must be allowable under the following applicable federal cost principles. These documents may be found at http://www.atp.nist.gov/atp/helpful.htm:

- a. For-profit companies, 48 C.F.R. Part 31.
- b. Universities, OMB Circular A-21.
- c. Nonprofit organizations, OMB Circular A-122.
- d. Hospitals, 45 C.F.R. Part 74, Appendix E.

3. What are direct and indirect costs?

Direct costs are those that are directly related to a specific, single cost objective. Examples include personnel, travel, equipment, subcontractors, and materials and supplies. An indirect cost is any cost not directly identified with a single, final cost objective but identified with two or more final cost objectives or an intermediate cost objective. After direct costs have been determined and charged directly to the project or other work, indirect costs are those remaining to be allocated to the several cost objectives. Because of diverse characteristics and accounting practices of recipient organizations, it is not possible to specify the types of costs that may be classified as indirect costs in all situations. However, typical examples of indirect costs for many organizations include general administration such as salaries and expenses of executive officers, rent, utilities, personnel administration, maintenance, library expenses, and accounting. ATP shall interpret indirect costs in accordance with applicable federal cost principles.

4. I am a small startup company and do not have any indirect costs. If funded, the ATP project would be the only project for my company. Will ATP fund a proposal that only has direct costs?

No. When the assertion is made that a company has no indirect costs, it raises the following concerns:

- a. If a company claims to have no indirect costs, this suggests to ATP that either the company is inexperienced in its fiscal affairs or the company has no intention of carrying on any business other than performing research for the ATP project. On this latter point, ATP will not pay for commercialization activities in which the company may engage at some point to earn revenues.
- b. ATP projects are industry/government, costshared projects. A company proposing to recover 100 percent of the project costs from ATP is not complying with the spirit of the ATP statute because the company has no funds of its own at risk. In addition, if the company is not sharing in the risk of the investment with ATP, it gives the appearance that it is not very committed to moving the technology into the marketplace. Therefore, a proposal claiming no indirect costs is unlikely to receive an ATP award.
- 5. I am a small startup company and expect to cost share direct costs through the use of state or other private investors. If those resources fall through after I receive an ATP award, will I be expected to make up the costshare gap?

Yes. If a single-company or joint venture proposal is selected for funding, the recipient's percentage of cost sharing will be made a part of the award, and only rarely will NIST reduce it after the award is issued. NIST cannot violate the ATP statutory cost-sharing requirements.

6. Can Cooperative Research and Development Agreement (CRADA) funds be used as cost sharing? May I count my company CRADA contribution as cost share?

No. Since CRADA funds derive from federal sources, they cannot be used for cost-sharing purposes. In the event that CRADA funds have been awarded in areas closely related to the ATP project, the proposer must make a clear distinction between the two projects. Recovering the proposer's cost share through a CRADA would be contrary to the kind of financial commitment expected of proposers by the ATP statute. In addition, title to any inventions arising from an ATP-funded project must be held by a for-profit company or companies incorporated or organized in the United States. Federal laboratories cannot hold title to inventions from ATP-funded research. This is another reason to keep the projects separate and distinct.

7. Can independent research and development (IR&D) funds be used as cost sharing?

The fundamental expectation for cost sharing is that the proposer's share of the ATP project costs will be funded from nonfederal sources, such as retained earnings or profits, not funds included as an indirect expense that is subsequently allocated for reimbursement under federally funded procurement contracts, grants, and other agreements. Recovering the proposer's cost share as part of its IR&D/General and Administrative (G&A) allocation to other federally funded projects would be contrary to the kind of financial commitment expected of proposers by the ATP statute.

Proposers **MAY NOT** classify the nonfederal share of the ATP project costs as an IR&D expense that is subsequently allocated, either as

a separate cost or as an element of a G&A cost pool, to federally funded procurement contracts, grants, or other agreements.

Proposers **MAY** allocate to an ATP project IR&D or G&A costs that include IR&D as an element provided that the IR&D/G&A rate applied to the ATP project is a federally approved indirect cost rate.

F. Intellectual Property

1. Who retains title to patentable inventions arising from an ATP-funded project?

Title to any inventions arising from an ATPfunded project must be held by a for-profit company, or companies, incorporated or organized in the United States. A university, government laboratory, independent research organization, or other nonprofit organization cannot retain title to patents, although such organizations can receive mutually agreeable payments (either one-time or continuing) from the company or companies holding title to the patent. However, a for-profit corporation organized by a university can be considered a for-profit company for the purpose of retaining title to patents arising from an ATP award. In such a case, documentation of the for-profit status must be provided in the proposal. If your organization is not a for-profit company but plans to be involved in an ATP project, you will not be able to retain title to any patentable inventions arising from the ATP project. Please make sure your legal department is aware that ATP cannot waive this mandated provision (15 U.S.C. § 278n(d)(11)(A) and 15 C.F.R. § 295.2). Title to any such invention shall not be transferred or passed, except to a company organized in the United States, until the expiration of the first patent obtained in connection with such invention.

2. Does the federal government have any rights to patentable inventions arising from an ATP-funded project?

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Yes. The United States reserves a nonexclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the United States any patentable invention arising from an ATP award. The federal government shall not, however, in the exercise of such license, publicly disclose proprietary information related to the license. The federal government also has march-in rights in accordance with 37 C.F.R. § 401.14(j). Since its inception in 1990, ATP has not exercised either of these rights.

G. Human and Animal Subjects

1. Will ATP fund projects involving human subjects?

Yes. Research involving human subjects must be in compliance with applicable federal regulations and NIST policies for the protection of human subjects. Human subjects research involves interactions with live human subjects or the use of data, images, tissue, and/or cells/cell lines (including those used for control purposes) from human subjects. Research involving human subjects may include activities such as the use of image and/or audio recordings of people, taking surveys or using survey data, using databases containing personal information, and many tasks beyond those within traditional biomedical research. A Human Subjects Determination Checklist is included in Exhibit 2 to assist you in determining whether your proposal has human subjects involvement, which would require additional documents with the Gate 1 and/or Gate 3 submission(s). Detailed information regarding the use of human subjects in research projects

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and required documentation is available at http://www.atp.nist.gov/atp/kit-04/has_guide/ contents.htm, or by calling 1–800–287–3863.

2. We are not a biotech company. Does our research involve human subjects?

It could. For example, manufacturing, electronic, and information technology projects may use human subjects in research that falls within the regulations. The use of human subjects in research is not limited to biologically based studies; there are numerous examples of nonmedical research proposals that may use human subjects or data with personal information about people. For example, a computer software company may propose to have a new web-based curriculum reviewed by a group of volunteers and solicit feedback on such things as usability, design, and content. The use of certain types of volunteers to review the web-based system (or the curriculum in a software format) may constitute the use of human subjects as defined by federal regulations. This type of research may require the submission of certain documents to NIST.

3. Will ATP fund projects involving animal subjects?

Yes. Research involving animal subjects must be in compliance with applicable federal regulations and NIST policies for the protection of animal subjects. Vertebrate animal research involves live animals that are being cared for, euthanized, or used by the project participants to accomplish research goals or for teaching or testing. The regulations do not apply to animal tissues purchased from commercial processors or tissue banks or to uses of preexisting images of animals (e.g., a wildlife documentary or pictures of animals in newscasts). Detailed information regarding the use of animal subjects in research projects and required documentation can be obtained at http://www.atp.nist.gov/atp/ kit-04/has_guide/contents.htm, or by calling 1–800–287–3863.

H. Award Requirements

1. If my proposal is selected for funding, what terms and conditions must I follow?

For your convenience, the award form for the cooperative agreement and the standard terms and conditions are available at http://www.atp. nist.gov/atp/helpful.htm.

2. How will I receive funds if my proposal is selected for funding?

Award funds are disbursed through electronic funds transfers using the Department of Treasury's Automated Standard Application for Payment (ASAP) system. Detailed information about ASAP is available at http://www.atp.nist. gov/atp/helpful.htm.