

PROGRAM ANNOUNCEMENT



DEPARTMENT OF DEFENSE (DoD)

**Proof of Concept Commercialization Pilot Program
Innovation Corps @ Department of Defense
(I-Corps @ DoD)**

Fiscal Year 2018

Program Announcement W911NF-18-S-0004



**Issued by the U.S. Army Contracting Command-Aberdeen
Proving Ground Research Triangle Park Division
on behalf of the Army Research Office
and the
Under Secretary of Defense for Research and Engineering
(Research Directorate/Basic Research Office)**

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I. OVERVIEW OF THE FUNDING OPPORTUNITY

A. Required Overview Content

Federal Awarding Agency Name(s)

This Department of Defense (DoD) program is issued by the U.S. Army Contracting Command-Aberdeen Proving Ground Research Triangle Park Division on behalf of the Army Research Office (ARO).

Funding Opportunity Title

Proof of Concept Commercialization Pilot Program Innovation Corps @ Department of Defense (I-Corps @ DoD) Fiscal Year 2018

Announcement Type

This is the initial announcement.

Funding Opportunity Number

W911NF-18-S-0004

Catalog of Federal Domestic Assistance (CFDA) Number

12.630, Basic, Applied, and Advanced Research in Science and Engineering

Key Dates

This announcement will be **open to receive applications continuously** until 4:00 p.m. local Durham, N.C. time, 6 July 2018, at which point all applications must be received.

8 June 2018 is the cutoff date for submission of informal white papers or questions to the I-Corps @ DoD Program Manager.

B. Additional Overview Information

The Innovation Corps at the Department of Defense (I-Corps @ DoD) program is an opportunity for Principal Investigators (PIs) to learn how to commercialize their discoveries / innovations. Successful applicants will receive a grant of up to \$70,000 to attend a program that provides extensive training in product commercialization from industry experts and ‘serial entrepreneurs’ who have helped train over 1000 I-Corps™ Teams in how to bring their innovations to market. The I-Corps @ DoD program is a pilot program modeled after the National Science Foundation (NSF) I-Corps™ program (Note: Trademark hereafter asserted and referred to as I-Corps). The key component of the I-Corps @ DoD program is the I-Corps Team. The I-Corps Team is

comprised of the Technical Lead, the Entrepreneurial Lead and the Mentor. The Entrepreneurial Lead is typically a postdoctoral researcher, graduate student, or other student, possesses relevant technical knowledge and a deep commitment to investigate the commercial landscape surrounding the innovation. The Mentor brings entrepreneurial experience and serves as the principal guide in determining the technology disposition – Technical Leads/PIs ideally locate their own mentor, but can also contact the I-Corps @ DoD Program Manager for assistance with locating a mentor.

The I-Corps @ DoD Teams members are required to attend a three-day entrepreneurial immersion course together (locations and dates are posted on the NSF I-Corps program web site, and further information will be provided to successful applicants). All I-Corps Team members will be required to attend a kick-off workshop, to join a series of web-based lectures, and to present their business proposals at a meeting of I-Corps™ grantees. All I-Corps Team members also are expected to invest significant effort in their projects outside of the university/laboratory environment. This curriculum requires full participation from the entire I-Corps Team. Each team member must commit to in-depth preparation, attendance at the lectures and workshops, and at least 15 additional hours per week for customer discovery.

Selection criteria for the I-Corps @ DoD Program (also known as the “Proof of Concept Commercialization Pilot Program”) are in accordance with those provided in Public Law 113-66 and codified in 10 USC 2359.

Grants for for-profit and nonprofit organizations exempted from Subpart E—Cost Principles of 2 CFR Part 200, are primarily governed by the following:

- Federal statutes

- Federal regulations

- 32 CFR Part 34 - Administrative Requirements for Grants and Agreements with For-Profit Organizations

- 32 CFR Parts 21, 22, 26, and 28

- DoD Research and Development General Terms and Conditions

- Agency-specific Research Terms and Conditions

The following websites may be accessed to obtain an electronic copy of the governing regulations and terms and conditions:

Code of Federal Regulations (CFR): <http://www.ecfr.gov>

DoD Research and Development General Terms and Conditions:
<https://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-terms-conditions.aspx>

Agency-specific Research Terms and Conditions:
<http://www.arl.army.mil/www/default.cfm?page=8>

II. DETAILED INFORMATION ABOUT THE FUNDING OPPORTUNITY

A. Program Description

The Department of Defense (DoD) is soliciting applications from current/recent DoD awardees on basic research topics to receive mentoring and funding to accelerate the transition and commercialization of the funded research. The I-Corps @ DoD program is designed to support the acceleration of basic research innovations from qualifying institutions by providing Principal Investigators (PIs) and students with training and mentorship in customer discovery and the commercialization process.

The goals of this program are to spur the transition of fundamental research with potential defense relevance to the marketplace, to encourage collaboration between academia and industry, and to train students, faculty, and other researchers to understand innovation and entrepreneurship.

There will be three outcomes of the I-Corps @ DoD program: 1) a clear go/no go decision regarding viability of products and services, 2) should the decision be to move the effort forward, a transition plan to do so, and 3) an understanding of what kind of minimum viable product demonstration would be required by key partners and customer segments.

The go/no go decision of the proposed effort will be made by the I-Corps team in consultation with the I-Corps program instructors, the I-Corps @ DoD Program Manager, and NSF I-Corps leadership.

Requirements:

Receipt of a Prior DoD Award:

A DoD award in a scientific or engineering field using basic research funds from the 6.1 budget activity, relevant to the proposed innovation, and that is currently active or that has a performance period ending date after March 1, 2013 is required. Applicants should inquire with the awarding program manager for previous DoD grants to determine whether the funds came from the 6.1 “Basic Research” budget activity.

Team: An I-Corps @ DoD team will need to be established prior to proposal submission. The I-Corps @ DoD team will consist of three roles:

1. Entrepreneurial Lead.
2. I-Corps @ DoD Mentor; and
3. Technical Lead (Principal Investigator).

The **Entrepreneurial Lead** will typically be a Post-Doctoral scholar, graduate, research scientist, or other student with relevant knowledge of the technology and a deep commitment to investigate the commercial landscape surrounding the innovation. In rare circumstances, with approval of the I-Corps @ DoD Program Manager, it also could be the PI. The Entrepreneurial Lead should also be capable and have the will to support the transition of the technology, should the I-Corps @ DoD project demonstrate the potential for commercial viability.

The **I-Corps @ DoD Mentor** will typically be an experienced entrepreneur with proximity to the institution and experience in transitioning technology out of Academic labs. The I-Corps Teams Mentor should be a third-party resource and may be recommended by the proposing institution. The I-Corps Teams Mentor will be responsible for advising the team on its progress through I-Corps and will usually have contacts in the industry area(s) being explored. Other than their direct expenses for program participation (e.g. travel expenses to program activities, conferences, and interviews), Mentors are not generally compensated through I-Corps Teams awards. The I-Corps @ DoD Mentor will be responsible for guiding the team forward and tracking progress through regular communication with the I-Corps @ DoD Program Manager.

The **Technical Lead** will typically be a faculty member, senior research scientist or postdoctoral scholar with deep and direct technical expertise in the actual core technology about which the I-Corps team is exploring commercial potential. Typically, the Technical Lead will also serve as the proposal Principal Investigator (PI).

I-Corps Teams Curriculum Participation

I-Corps team members are required to participate in the I-Corps Teams Curriculum developed by the National Science Foundation. This curriculum typically includes an in-person Entrepreneurial Curriculum Immersion Kickoff, a weekly online curriculum, and an in-person Lessons Learned report-out. More details on the exact I-Corps Teams Curriculum can be found in the NSF I-Corps Teams FAQ at https://www.nsf.gov/pubs/2017/nsf17083/nsf17083.jsp?WT.mc_ev=click. Note that while I-Corps @ DoD teams go through the same course curriculum as the NSF-funded I-Corps teams, the NSF program differs on other details listed in the linked FAQ. Dates for upcoming cohorts will be posted on the NSF I-Corps program website.

The I-Corps Teams Curriculum provides real-world, hands-on, immersive learning about what it takes to evaluate commercial opportunity around the innovation. The main activity is customer discovery where the team leaves the lab to evaluate potential product-market fit and the wider

business model. The team's progress in customer discovery will be shared with the entire cohort to facilitate group learning. At the end of the curriculum, Teams are expected to have performed at least one hundred (100) face-to-face interviews with potential customers and potential partners from their proposed target market(s).

I-Corps teams are encouraged to travel extensively to reach their customer discovery goals for the curriculum. Travel to customer discovery interviews typically does not need approval by DoD, however, teams must obtain written prior approval from the DoD I-Corps program officer for either international travel or travel to an academic conference.

Online content establishing the process and progress tracking throughout the post-award effort will be hosted by NSF. The team's progress will be tracked through a closed Wiki environment accessible only by NSF, the I-Corps @ DoD Program Manager and the team.

Expectations from the I-Corps @ DoD Grant: Successful completion of the I-Corps @ DoD grant is expected to contribute to one or more of the following:

- New for-profit start-up businesses
- Licensing the intellectual property developed under an SBIR/STTR project or other commercial endeavor
- A business plan suitable for review by third-party investors
- Enhancing the entrepreneurial mindset among DoD-funded researchers

In addition to the NSF-hosted post award tracking efforts, DoD will seek to collect outcomes from the awardees along the lines listed above during post-award period.

B. Federal Award Information

DoD intends to award roughly \$1,000,000 under this Program Announcement (PA), subject to the availability of funds. Awards will be in the form of grants, and all awards will be made by the U.S. Army Contracting Command-Aberdeen Proving Ground Research Triangle Park Division (ACC-APG-RTP Division) on behalf of the ARO, as an agent of the USD(R&E). Award size will not exceed \$70,000. Up to 14 awards are anticipated for FY 18. All awards will have a performance period of 12 months.

C. Eligibility Information

1. Eligible Applicants

Eligible applicants under this PA are degree-granting universities or for-profit entities that have previously received a DoD basic research award in a field of science or engineering funded by the 6.1 budget activity and the award is either current or was completed after 1 March 2013. Applying institutions are responsible for providing the award number and verifying the nature of

the award with the award contact. There is no restriction on the place of performance included in the PA. An institution shall be eligible for an award under the pilot program if the institution agrees to—

- (1) Use funds from the award for the uses specified in paragraph (a) below; and
- (2) Oversee the use of the funds through—
 - (i) Review of commercialization potential or military utility of technologies;
 - (ii) Technology validation focused on market feasibility;
 - (iii) Simple reporting on program progress;

a. USE OF AWARD. —

(1) IN GENERAL. —Subject to subparagraph (2), the funds from an award shall be used to attend I-Corps program activities and to conduct customer discovery interviews as detailed by the I-Corps program curriculum. Funds remaining after program attendance may be used to further evaluate the commercial potential of existing discoveries, including technical validations, market research, clarifying intellectual property rights, and investigating commercial business opportunities.

(2) LIMITATIONS. —

- (i) The amount of an award may not exceed \$70,000 including indirect costs.
- (ii) Funds from an award will be not be used for additional research, or to fund the acquisition of research equipment or supplies unrelated to commercialization activities.
- (iii) Profit/fees are not permitted.

2. Cost Sharing or Matching

Cost sharing or matching is not required under this PA-and is not an evaluation factor.

3. Other Amount and Composition of Requested Funding

An application may request DoD funding between \$40,000 and \$70,000. An application that requests aggregate funding less than \$40,000, or greater than \$70,000 will be considered non-responsive and will not be accepted for review. Applicants that use a “modified total direct costs” base for reimbursement of indirect costs are reminded that the costs of equipment are excluded from the base for purposes of indirect (facilities and administration) cost calculations.

D. Grants.gov Application Submission and Receipt Procedures

This section provides the application submission and receipt instructions for DoD program applications. Please read the following instructions carefully and completely.

1. Electronic Delivery

DoD is participating in the Grants.gov initiative to provide the grant community with a single site to find and apply for grant funding opportunities. DoD encourages applicants to submit their applications online through Grants.gov.

2. How to Register to Apply through Grants.gov

a. *Instructions:* Read the instructions below about registering to apply for DoD funds. Applicants should read the registration instructions carefully and prepare the information requested before beginning the registration process. Reviewing and assembling the required information before beginning the registration process will alleviate last-minute searches for required information.

Organizations must have a Data Universal Numbering System (DUNS) Number, active System for Award Management (SAM) registration, and Grants.gov account to apply for grants. If individual applicants are eligible to apply for this funding opportunity, then you may begin with step 3, Create a Grants.gov Account, listed below.

Creating a Grants.gov account can be completed online in minutes, but DUNS and SAM registrations may take several weeks. Therefore, an organization's registration should be done in sufficient time to ensure it does not impact the entity's ability to meet required application submission deadlines.

Complete organization instructions can be found on Grants.gov

here: <https://www.grants.gov/web/grants/applicants/organization-registration.html>

1) *Obtain a DUNS Number:* All entities applying for funding, including renewal funding, must have a DUNS Number from Dun & Bradstreet (D&B). Applicants must enter the DUNS Number in the data entry field labeled "Organizational DUNS" on the SF-424 form. For more detailed instructions for obtaining a DUNS Number, refer to:

<https://www.grants.gov/web/grants/applicants/organization-registration/step-1-obtain-duns-number.html>

2) *Register with SAM:* All organizations applying online through Grants.gov must register with the System for Award Management (SAM). Failure to register with SAM will prevent your organization from applying through Grants.gov. SAM registration must be renewed annually. For more detailed instructions for registering with SAM, refer to:

<https://www.grants.gov/web/grants/applicants/organization-registration/step-2-register-with-sam.html>

3) *Create a Grants.gov Account:* The next step is to register an account with Grants.gov. Follow the on-screen instructions or refer to the detailed instructions

here: <https://www.grants.gov/web/grants/applicants/registration.html>

4) *Add a Profile to a Grants.gov Account*: A profile in Grants.gov corresponds to a single applicant organization the user represents (i.e., an applicant) or an individual applicant. If you work for or consult with multiple organizations and have a profile for each, you may log in to one Grants.gov account to access all your grant applications. To add an organizational profile to your Grants.gov account, enter the DUNS Number for the organization in the DUNS field while adding a profile. For more detailed instructions about creating a profile on Grants.gov, refer to: <https://www.grants.gov/web/grants/applicants/registration/add-profile.html>

5) *EBiz POC Authorized Profile Roles*: After you register with Grants.gov and create an Organization Applicant Profile, the organization applicant's request for Grants.gov roles and access is sent to the EBiz POC. The EBiz POC will then log in to Grants.gov and authorize the appropriate roles, which may include the AOR role, thereby giving you permission to complete and submit applications on behalf of the organization. You will be able to submit your application online any time after you have been assigned the AOR role. For more detailed instructions about creating a profile on Grants.gov, refer to: <https://www.grants.gov/web/grants/applicants/registration/authorize-roles.html>

6) *Track Role Status*: To track your role request, refer to: <https://www.grants.gov/web/grants/applicants/registration/track-role-status.html>

b. *Electronic Signature*: When applications are submitted through Grants.gov, the name of the organization applicant with the AOR role that submitted the application is inserted into the signature line of the application, serving as the electronic signature. The EBiz POC **must** authorize people who are able to make legally binding commitments on behalf of the organization as a user with the AOR role; **this step is often missed, and it is crucial for valid and timely submissions.**

3. How to Submit a Proposal to DoD via Grants.gov

Grants.gov applicants can apply online using Workspace. Workspace is a shared, online environment where members of a grant team may simultaneously access and edit different webforms within an application. For each funding opportunity announcement (FOA), you can create individual instances of a workspace.

Below is an overview of applying on Grants.gov. For access to complete instructions on how to apply for opportunities, refer to:

<https://www.grants.gov/web/grants/applicants/workspace-overview.html>

1) *Create a Workspace*: Creating a workspace allows you to complete it online and route it through your organization for review before submitting.

2) *Complete a Workspace*: Add participants to the workspace to work on the application together, complete all the required forms online or by downloading PDF versions, and check for errors before submission. The Workspace progress bar will display the state of your application process as you apply. As you apply using Workspace, you may click the blue question mark icon near the upper-right corner of each page to access context-sensitive help.

a. *Adobe Reader*: If you decide not to apply by filling out webforms you can download individual PDF forms in Workspace. The individual PDF forms can be downloaded and saved to your local device storage, network drive(s), or external drives, then accessed through Adobe Reader.

NOTE: Visit the Adobe Software Compatibility page on Grants.gov to download the appropriate version of the software at: <https://www.grants.gov/web/grants/applicants/adobe-software-compatibility.html>

b. *Mandatory Fields in Forms*: In the forms, you will note fields marked with an asterisk and a different background color. These fields are mandatory fields that must be completed to successfully submit your application.

c. *Complete SF-424 Fields First*: The forms are designed to fill in common required fields across other forms, such as the applicant name, address, and DUNS Number. Once it is completed, the information will transfer to the other forms.

3) *Submit a Workspace*: An application may be submitted through workspace by clicking the Sign and Submit button on the Manage Workspace page, under the Forms tab. Grants.gov recommends submitting your application package at least 24-48 hours prior to the close date to provide you with time to correct any potential technical issues that may disrupt the application submission.

4) *Track a Workspace Submission*: After successfully submitting a workspace application, a Grants.gov Tracking Number (GRANTXXXXXXXX) is automatically assigned to the application. The number will be listed on the Confirmation page that is generated after submission. Using the tracking number, access the Track My Application page under the Applicants tab or the Details tab in the submitted workspace.

For additional training resources, including video tutorials, refer to: <https://www.grants.gov/web/grants/applicants/applicant-training.html>

Applicant Support: Grants.gov provides applicants 24/7 support via the toll-free number 1-800-518-4726 and email at support@grants.gov. For questions related to the specific grant opportunity, contact the number listed in the application package of the grant you are applying for.

If you are experiencing difficulties with your submission, it is best to call the Grants.gov Support Center and get a ticket number. The Support Center ticket number will assist the DoD with tracking your issue and understanding background information on the issue.

4. Timely Receipt Requirements and Proof of Timely Submission

a. *Online Submission*. All applications must be received by 4pm Eastern time on the due date established for each program. Proof of timely submission is automatically recorded by Grants.gov. An electronic date/time stamp is generated within the system when the application is successfully received by Grants.gov. The applicant with the AOR role who submitted the

application will receive an acknowledgement of receipt and a tracking number (GRANTXXXXXXXX) from Grants.gov with the successful transmission of their application. This applicant with the AOR role will also receive the official date/time stamp and Grants.gov Tracking number in an email serving as proof of their timely submission.

When DoD successfully retrieves the application from Grants.gov, and acknowledges the download of submissions, Grants.gov will provide an electronic acknowledgment of receipt of the application to the email address of the applicant with the AOR role who submitted the application. Again, proof of timely submission shall be the official date and time that Grants.gov receives your application. Applications received by Grants.gov after the established due date for the program will be considered late and will not be considered for funding by DoD.

Applicants using slow internet, such as dial-up connections, should be aware that transmission can take some time before Grants.gov receives your application. Again, Grants.gov will provide either an error or a successfully received transmission in the form of an email sent to the applicant with the AOR role attempting to submit the application. The Grants.gov Support Center reports that some applicants end the transmission because they think that nothing is occurring during the transmission process. Please be patient and give the system time to process the application.

5. Content and Form of Application Submission

DoD is interested in accelerating the commercial transition of DoD-funded basic research. For this reason, the application narrative detailing the technology to be commercialized must also clearly describe the extent to which the applicant (1) has commercialization resources (such as a technology transfer office) which could be utilized; (2) has an intellectual property rights strategy or office; and (3) demonstrates a plan for sustainability beyond the duration of the funding from the award.

Applicants must complete all forms in accordance with the instructions on the forms and the additional instructions below. **The application is limited to 15 pages, which applies to the technical portion of the application consisting of the following: Project Summary/Abstract and Project Narrative, as described below, as well as any letters of support that an applicant chooses to submit. Pages exceeding this limit will not be considered in the application evaluation.**

The following SF 424 (R&R) forms and, as applicable, attachments are required for all applications:

FORM: The SF 424 (R&R) (Mandatory) - The SF 424 (R&R) form is to be used as the cover page. Complete this form first to populate data in other forms. By submitting an application through Grants.gov, the Authorized Representative (identified by username and password) is providing an “electronic signature.” By “signing” the SF 424 (R&R), an applicant is providing the certification required by 32 CFR Part 28 regarding lobbying as contained in Section II.F.2 of

this PA, and the appropriate representation on tax delinquency and felony convictions (see below regarding “Other Attachments,” Field 12). If you encounter problems, contact customer support at 1-800-518-4726 or at support@grants.gov. Tutorials may be printed by right-clicking on the tutorial and selecting “Print.”

FORM: Research & Related Other Project Information (Mandatory) – Complete questions 1 through 6 and attach a file for items 7, 8, and, as applicable, 12. Under this PA, applicants are not required to provide attachments for items 9, 10, and 11. The files **must** comply with the following instructions:

Project Summary/Abstract (Field 7 on the form) (Mandatory) – The Project Summary/Abstract must be no longer than a single page. The abstract must be marked that it is publicly releasable, as abstracts for all awarded applications will be placed on a DoD website(s) searchable by the public. The abstract should provide a concise description of the product / idea which the team intends to commercialize. The header of the abstract should identify the PI, the institution, and the proposal title.

To attach a project summary/abstract, click “Add Attachment.”

Project Narrative (Field 8 on the form) – The project narrative must address the following:

- Scientific or Technical Merit of the Underlying Research and Proposed Product
 - Clearly describe the underlying basic research from the previously funded DoD basic research award which leads to the proposed product. Identify the 6.1 funded award number and POC contact information for the DoD award.
 - Describe the specific product to be commercialized. This should be a specific product, not a general technology capability.
 - Describe the product’s essential capabilities.
- Contribution to DoD Technical Capabilities
 - Describe the vision for how this product could be of potential value to a DoD entity and how it might be acquired. (e.g. via a new ‘Start Up’ business, licensing the technology to other businesses to produce, etc.)
- Composition and Capabilities of the Team
 - Describe the team’s qualifications and experience with respect to commercializing the proposed product.
 - For projects where the Entrepreneurial Lead (EL) is an international student or PhD student – what is status of the EL’s Visa and finish date of the program of study?
 - Are the Mentor, PI, and EL co-located?
 - Are the EL, PI, or Mentor related in any way?
 - How many courses is the PI teaching in the upcoming semester? How many courses is the EL taking or teaching?
 - Has everyone read the syllabus, and is everyone aware of the time commitment?
- Potential for Commercialization and Expected Benefits

- Describe why the team believes the proposed product has commercial potential.
- Who are the team's target consumers and what capability will this effort provide them?
- How would you demonstrate the value of your product?
- What is the estimated time for the commercialization effort to achieve market impact?
- Describe a plan for continuing the commercialization effort beyond the duration of this award.
- Describe how the team would use a \$40,000-\$70,000 grant.
- Resources, Facilities and Equipment Available for Commercialization
 - Briefly describe what commercialization resources are available to the team and how those resources will be engaged during the commercialization effort.
 - Describe the intellectual property rights strategy for this effort, including how intellectual property will be shared or protected.
 - Briefly describe the physical facilities available to the team for the commercialization effort.

To attach the project narrative, click “Add Attachment.”

Other Attachments (Field 12 on the form) – To include any other relevant attachments, all of which must be in PDF format, click “Add Attachment.” This must include a completed representation on tax delinquency and felony convictions (the form is found on the last page of this PA).

FORM: SF 424 (R&R) Research & Related Budget (Mandatory) – Complete Sections A through H and attach a budget justification in Section L. The budget must be consistent with a 12-month period of award and include the total amount requested and a breakdown by cost element. Additionally, the budget should be appropriate for the activities of the program, namely travel to the I-Corps initial and final presentations at the beginning and end of the 7-week course (respectively), as well as travel costs (transportation, lodging, etc.) to conduct 100 “customer discovery” interviews once the I-Corps course has begun. Partial salary for the Entrepreneurial Lead is allowable, and in exceptional cases partial salary for the Technical Lead/PI may be permitted. The team may budget for other commercialization activities after the 7-week course has concluded, but the bulk of the budget is expected to be focused on completing interview activities during the 7 week I-Corps course. The budget justification should provide additional data (not included in Sections A through H) by element of cost, sufficient to meet the guidance provided below and ensure meaningful evaluation.

Note: Be sure that the total amount requested in the budget agrees with the amount entered in Block #15 of the Cover Page (Form SF 424 (R&R)).

To evaluate compliance with Title IX of the Education Amendments of 1972 (20 U.S.C. A§ 1681 Et. Seq.), the Department of Defense is collecting certain demographic and career information to be able to assess the success rates of women who are proposed for key roles in

applications in science, technology, engineering, or mathematics disciplines. To enable this assessment, each application must include the following two forms completed as indicated.

FORM: SF-424 (R&R) Research and Related Senior/Key Person Profile (Expanded) (Mandatory) --

The Degree Type and Degree Year fields on the Research and Related Senior/Key Person Profile (Expanded) form will be used by DoD as the source for career information. In addition to the required fields on the form, applicants must complete these two fields for all individuals that are identified as having the project role of PD/PI or Co-PD/PI on the form. Additional senior/key persons can be added by selecting the “Next Person” button. Biographical sketches are required for the PI and for other key personnel (not to exceed three (3) pages each). These will not be included in the page count. Be sure to include education and the year in which each degree was received.

FORM: SF-424 (R&R) Research and Related Personal Data (Mandatory) -- This form will be used by DoD as the source of demographic information, such as gender, race, ethnicity, and disability information for the Project Director/Principal Investigator and all other persons identified as Co-Project Director(s)/Co-Principal Investigator(s). Each application must include this form with the name fields of the Project Director/Principal Investigator and any Co-Project Director(s)/Co-Principal Investigator(s) completed; however, provision of the demographic information in the form is voluntary. If completing the form for multiple individuals, each Co-Project Director/Co-Principal Investigator can be added by selecting the “Next Person” button. The demographic information, if provided, will be used for statistical purposes only and will not be made available to merit reviewers. Applicants who do not wish to provide some or all of the information should check or select the “Do not wish to provide” option.

6. Unique Entity Identifier and System for Award Management (SAM)

Each eligible applicant under this PA is required to (a) be registered in SAM prior to submitting its application; (b) provide a valid Dun and Bradstreet Universal Numbering System (DUNS) number in its application; and (c) continue to maintain an active SAM registration with current information at all times during which it has an active federal award or an application or plan under consideration by an agency.

ACC-APG-RTP Division on behalf of the ARO, as the awarding office for awards under this PA, will not make an award to an applicant until the applicant has complied with all applicable DUNS and SAM requirements. If an applicant has not fully complied with the requirements by the time ACC-APG-RTP Division is ready to make an award, the evaluation panel will determine that the applicant is not qualified to receive an award and use that determination as a basis for making an award to another applicant.

7. Submission Dates and Times

a. Applications must be received by 4:00 p.m. local Durham, N.C. time, 6 July 2018. Proposals submitted after the closing date will not be considered by the government.

Applicants are responsible for submitting their applications in sufficient time to allow them to reach Grants.gov by the time specified in this PA. If the application is received by Grants.gov after the exact time and date specified as the deadline for receipt, it will be considered “late” and will not be considered for review. Acceptable evidence to establish the time of receipt by Grants.gov includes documentary evidence of receipt maintained by Grants.gov.

To avoid the possibility of late receipt, which will render the application ineligible for consideration, it is strongly recommended that applications be uploaded at least 2 days before the deadline established in the PA. This will help avoid problems caused by high system usage or any potential technical and/or input problems involving the applicant’s own equipment.

If an emergency or unanticipated event interrupts normal federal government processes so that applications cannot be received by Grants.gov by the exact time specified in this PA, and the situation precludes amendment of the PA closing date, the time specified for receipt of applications will be deemed to be extended to the same time of day specified in this PA on the first work day on which normal federal government processes resume.

b. Application Receipt Notices - After an application is submitted to Grants.gov, the Authorized Representative (listed in Block #19 of the SF-424) will receive a series of three e-mails from Grants.gov. The first e-mail will confirm receipt of the application by the Grants.gov system, and the second e-mail will indicate that the application has either been successfully validated by the system prior to transmission to ARO or has been rejected due to errors. The second email will also determine if the proposal is late based on the aforementioned receipt time. A third e-mail should be received once ARO has confirmed receipt of the application within 10 days from the application due date. The last e-mail will indicate that the application has been received and provide the assigned tracking number. Applicants can track the status of their applications through at <https://www.grants.gov/web/grants/applicants/track-my-application.html>.

8. Funding Restrictions

- a. Funds from an award may not be used for additional research, or to fund the acquisition of research equipment, supplies unrelated to commercialization activities, or profit/fees.
- b. Applications may not request funds for, and awards under this PA may not be used for, subawards.

9. Other Submission Requirements

An applicant may withdraw an application at any time before award by written notice or by email. Notice of withdrawal shall be sent to the Grants Officer identified in Section II.G, of this PA. Withdrawals are effective upon receipt of notice by the Grants Officer.

E. Application Review Information

1. Criteria

Primary evaluation criteria (of equal importance to each other) are:

- a. Overall scientific or technical merit and innovation of the underlying basic research and the proposed product. Demonstration of the essential capabilities of the product.
- b. Potential DoD interest and contribution to the balance of the overall DoD technical capabilities.
- c. The composition and capabilities of the applicant team. Their qualifications and experience relevant to commercializing the proposed product.
- d. Potential for commercial application and benefits expected to accrue. Potential impact on the identified market. Time horizon to realize the market impact. Demonstration of a plan for sustainability beyond the duration of the funding from this award.
- e. Available facilities and equipment. The extent to which a qualifying institution—
 - (i) has commercialization resources (such as a technology transfer office) and has a plan for engaging those resources in the program's implementation,
 - (ii) has an intellectual property rights strategy or office; and
 - (iii) has the physical facilities required for product commercialization available to the team.

****NOTE:** Cost sharing will not be a consideration in proposal evaluation.

2. Review and Selection Process

A white paper is not necessary to be eligible for an award under this PA. However, if an informal white paper of 1 or 2 pages is submitted by email to the DoD program manager identified in section II G by 8 June 2018 an I-Corps program official will respond with comments.

All proposals are treated as procurement sensitive and are disclosed only for the purpose of evaluation. Proposals that pass an initial review will be subject to a peer review by qualified government scientists.

Each proposal will be evaluated based on the evaluation criteria above rather than against other proposals for research in the same general area.

Upon completion of an evaluation against the criteria above, a proposal selected for possible award will be analyzed for the realism and reasonableness of costs. Proposal costs must be determined reasonable and realistic before the Government can make an award.

The initial evaluation will be based on the written submission. Teams that are recommended will be scheduled to engage in a telephone interview call with the I-Corps @ DoD Program Manager and NSF's I-Corps Management Team. The purpose of this conference call is to assess the applicant team's capabilities and commitment to the program and to clarify questions about the written proposal. At the conclusion of this initial call, teams may be invited for a second telephone interview that includes both the NSF I-Corps Management team and instructors of the I-Corps Teams Curriculum.

The evaluation panel will consist of technical experts who are Government employees or who are detailed under the Intergovernmental Personnel Act (IPA). Restrictive notices notwithstanding, one or more support contractors or advisors external to the US Government may be utilized as subject-matter-expert technical consultants. These individuals will sign a conflict of interest statement and a non-disclosure agreement prior to receiving proposal information.

Approval of the recommendation for award is the authority of the Director of the OUSD(R&E) Research Directorate/Basic Research Office.

3. Anticipated Announcement and Federal Award Dates

Decisions are expected to be announced by acceptance/declination letters via email. At the discretion of the government, awards may be made at any time after the issue date of this PAA. All awards are expected to be in place by 30 Sep 2018.

4. Recipient Qualification

The Office of Management and Budget (OMB) has issued final guidance implementing section 872 of the Duncan Hunter National Defense Authorization Act for Fiscal Year 2009 as it applies to grants. As required by section 872, OMB and the General Services Administration have established the Federal Awardee Performance and Integrity Information System (FAPIIS) as a repository for government-wide data related to the integrity and performance of entities awarded federal grants and contracts. This final guidance implements reporting requirements for recipients and awarding agencies; requires awarding agencies to consider information in FAPIIS before awarding a grant to a non-federal entity; and addresses how FAPIIS and other information may be used in assessing recipient integrity.

Specifically, effective January 1, 2016, the guidance requires:

- a. Federal awarding agencies to report information to FAPIIS about any termination of an award due to a material failure to comply with the award terms and conditions; any administrative agreement with a non-federal entity to resolve a suspension or debarment proceeding; and any finding that a non-federal entity is not qualified to receive a given award, if the finding is based on criteria related to the entity's integrity or prior performance under federal awards.
- b. Federal awarding agencies, prior to making award to a non-federal entity, to review information in FAPIIS to determine that entity's eligibility to receive the award.
- c. Recipients of federal contracts, grants, and cooperative agreement awards with a cumulative total value exceeding \$10,000,000 are required to provide information to FAPIIS on certain civil, criminal, and administrative proceedings that reached final disposition within the most recent five year period and that were connected with the award or performance of a federal award; and to disclose semiannually the information about the criminal, civil, and administrative proceedings described in section 872(c).
- d. Notice of funding opportunities and federal award terms and conditions to inform a non-federal entity that it may submit comments to FAPIIS (<https://www.fapiis.gov>) about any information the federal awarding agency had reported to the system about the non-federal entity, for consideration by the awarding agency in making future awards to the non-federal entity.

F. Federal Award Administration Information

1. Federal Award Notices

Notification of selection of all applications will be e-mailed by ARO by 30 Sep 2018.

The notification e-mail regarding a successful application must not be regarded as authorization to commit or expend DoD funds. A grant award signed by the DoD Grants Officer is the authorizing document. Applicants whose applications are recommended for negotiation of award will be contacted by a DoD Contract/Grant Specialist to discuss any additional information required for award. This may include representations and certifications, revised budgets or budget explanations, or other information as applicable to the proposed award. The award start date will be determined at this time.

2. Administrative and National Policy Requirements

a. Each grant awarded under this PA will be governed by the general terms and conditions in effect at the time of the award that conform to DoD's implementation of OMB guidance applicable to financial assistance in 2 CFR part 200, "Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards." The DoD Research and Development General Terms and Conditions (latest version, September 2017) are located at

<https://www.onr.navy.mil/Contracts-Grants/submit-proposal/grants-proposal/grants-terms-conditions.aspx>.

These terms and conditions are incorporated by reference in this PA.

b. A recipient must comply with all applicable national policy requirements. The key national policy requirements that may relate to an award under this PA are included in the terms and conditions specified in paragraph 2.a. above.

c. **The following representations are required for grant awards:**

Representations on tax delinquency and felony convictions

Check either “is” or “is not” for each of these two representations, as appropriate for the proposing institution, and attach the representations page to field 18 of the SF-424. The page for these representations is provided on the last page of this PA.

Representation regarding the Prohibition on Using Funds under Grants and Cooperative Agreements with Entities that Require Certain Internal Confidentiality Agreements

By submission of its proposal or application, the applicant represents that it does not require any of its employees, contractors, or subrecipients seeking to report fraud, waste, or abuse to sign or comply with internal confidentiality agreements or statements prohibiting or otherwise restricting those employees, contractors, or subrecipients from lawfully reporting that waste, fraud, or abuse to a designated investigative or law enforcement representative of a Federal department or agency authorized to receive such information. Note that: (1) the basis for this representation is a prohibition in section 743 of the Financial Services and General Government Appropriations Act, 2015 (Division E of the Consolidated and Further Continuing Appropriations Act, 2015, Pub. L. 113-235) and any successor provision of law on making funds available through grants and cooperative agreements to entities with certain internal confidentiality agreements or statements; and (2) section 743 states that it does not contravene requirements applicable to Standard Form 312, Form 4414, or any other form issued by a Federal department or agency governing the nondisclosure of classified information.

3. Reporting

Recipients must submit a final financial report using the Standard Form (SF)-425, Federal Financial Report.

Recipients must submit a final technical report in PDF format within 90 days following the expiration of the grant. The report should summarize the I-Corps @ DoD curriculum participation, the face-to-face interviews, the reasoning behind the go / no go decision regarding viability of products and/or services, if the go decision is selected a transition plan and an outline

of the minimum viable product demonstration which would be required by key partners and/or customers, and a list of lessons learned and recommendations for the I-Corps @ DoD program.

G. Federal Awarding Agency Contacts

Questions regarding program policy, program content, or technical issues should be directed prior to 9 June 2018 to:

DoD Program Manager for the I-Corps @ DoD Program:
James Harvey
Army Research Office
James.f.harvey.civ@mail.mil

Questions regarding administrative problems or grant administration should be directed to:

The DoD Grants Officer:
Mr. Kevin Bassler
Grants Officer
US Army Contracting Command-Aberdeen Proving Ground
RTP Division
kevin.j.bassler.civ@mail.mil

H. Other Information

Applications must not include any information that has been identified as classified national security information under authorities established in Executive Order 12958, Classified National Security Information.

Applicants are advised that employees of commercial firms under contract to the government may be used to administratively process applications. By submitting an application, an applicant consents to allowing access to its application(s) by support contractors. These support contracts include nondisclosure agreements prohibiting their contractor employees from disclosing any information submitted by applicants.

Representations under DoD Assistance Agreements: Appropriations Provisions on Tax Delinquency and Felony Convictions

The applicant is () is not () a “Corporation” meaning any entity, including any institution of higher education, other nonprofit organization, or for-profit entity that has filed articles of incorporation.

If the applicant is a “Corporation” please complete the following representations:

(1) The applicant represents that it is () is not () a corporation that has any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability.

(2) The applicant represents that it is () is not () is not a corporation that was convicted of a criminal violation under any Federal law within the preceding 24 months.

NOTE: If an applicant responds in the affirmative to either of the above representations, the applicant is ineligible to receive an award unless the agency suspension and debarment official (SDO) has considered suspension or debarment and determined that further action is not required to protect the Government’s interests. The applicant therefore should provide information about its tax liability or conviction to the agency’s SDO as soon as it can do so, to facilitate completion of the required considerations before award decisions are made.

Name of Organization _____

Name of person Authorized to sign _____

Signature _____

Date _____