**NATIONAL INSTITUTE OF JUSTICE**

**Graduate Research Fellowship in Science, Technology, Engineering, and Mathematics**

[**http://nij.gov/funding/Documents/solicitations/nij-2016-4320.pdf**](http://nij.gov/funding/Documents/solicitations/nij-2016-4320.pdf)

**Eligibility**

Eligible applicants are limited to degree-granting academic institutions in the United States and its territories. To be eligible, the institution must be fully accredited by one of the regional institutional accreditation agencies recognized by the U.S. Secretary of Education. Under this solicitation, the applicant institution must apply as the sponsoring institution for the doctoral candidate conducting criminal justice-related research in a discipline relevant to NIJ’s mission. NIJ may elect to make awards for applications submitted under this solicitation in future fiscal years, dependent on the merit of the applications and on the availability of appropriations.

**Deadline**

Applicants must register with Grants.gov prior to submitting an application. All applications are due to be submitted and in receipt of a successful validation message in Grants.gov by 11:59 p.m. eastern time on December 15, 2015.

**Overview**

The Graduate Research Fellowship in Science, Technology, Engineering, and Mathematics (GRF-STEM) provides awards to accredited academic institutions to support graduate research leading to doctoral degrees in areas that are relevant to ensuring public safety, preventing and controlling crime, and ensuring the fair and impartial administration of criminal justice in the United States. Applicant academic institutions sponsoring doctoral students are eligible to apply only if: 1. The doctoral student’s degree program is in a science, technology, engineering, or mathematics (STEM) discipline; and 2. The student’s proposed dissertation research has direct implications for providing solutions to problems that affect public safety, crime, and the fair and impartial administration of criminal justice in the United States. Academic institutions sponsoring doctoral students whose disciplines are in the social and behavioral sciences should consider submitting their proposals under the forthcoming “NIJ Graduate Research Fellowship Program in the Social and Behavioral Sciences” solicitation. Awards are anticipated to be made to successful applicant institutions in the form of a grant to cover a fellowship for the sponsored doctoral student. Although the initial award is only for 1 year of funding, each fellowship potentially provides up to 3 years of support usable over a 5- year period. The applicant institution will have to reapply on behalf of the student for each additional year. Pending NIJ review of continued enrollment and adequate progress, up to 3 years of support are possible. For each year of support, NIJ provides the degree-granting institution a stipend of $35,000 usable toward the student’s salary and related costs, and up to $15,000 to cover the student’s tuition and fees, research expenses, and related costs. Final award decisions will be made by the Director of the National Institute of Justice.

**NIJ Graduate Research Fellowship Program in the Social and Behavioral Sciences**

[**http://nij.gov/funding/Documents/solicitations/nij-2016-4321.pdf**](http://nij.gov/funding/Documents/solicitations/nij-2016-4321.pdf)

**Eligibility**

Eligible applicants are limited to degree-granting academic institutions in the United States and its territories. To be eligible, the institution must be fully accredited by one of the regional institutional accreditation agencies recognized by the U.S. Secretary of Education. Under this solicitation, the applicant institution must apply as the sponsoring institution for the doctoral candidate who will be conducting criminal-justice-related research in a discipline relevant to NIJ’s mission. An eligible applicant may submit more than one application, as long as each application proposes a different project in response to the solicitation. (Applicants should also review and consider the “Duplicate Applications” note under How to Apply in Section D. Application and Submission Information.) NIJ may elect to make awards for applications submitted under this solicitation in future fiscal years, dependent on the merit of the applications and on the availability of appropriations. For additional eligibility information, see Section C. Eligibility Information.

**Deadline**

Applicants must register with Grants.gov prior to submitting an application. All applications are due to be submitted and in receipt of a successful validation message in Grants.gov by 11:59 p.m. eastern time on December 15, 2015. All applicants are encouraged to read this: Important Notice: Applying for Grants in Grants.gov. For additional application information, see Section D. Application and Submission Information.

**Overview**

The NIJ Graduate Research Fellowship (GRF) Program in Social and Behavioral Sciences is open to doctoral students in all social and behavioral science disciplines. This program provides awards to accredited academic institutions to support graduate research leading to doctoral degrees in areas that are relevant to ensuring public safety, preventing and controlling crime, and ensuring the fair and impartial administration of criminal justice in the United States. NIJ invests in doctoral education by supporting universities that sponsor students who demonstrate the potential to successfully complete doctoral degree programs in disciplines relevant to the mission of NIJ and who are in the final stages of graduate study.

Applicants sponsoring doctoral students are eligible to apply only if: 1. The doctoral student’s degree program is in a social and behavioral science discipline; and 2. The student’s proposed dissertation research has direct implications for criminal justice policy and practice in the United States. To learn more about NIJ’s Graduate Research Fellowship (GRF) Program in Social and Behavioral Sciences, see www.nij.gov/GRF-SBS. Academic institutions sponsoring doctoral students whose disciplines are outside the social and behavioral sciences will not be considered under this solicitation. Applicants sponsoring doctoral students whose research is in the areas of science, technology, engineering, or mathematics (STEM) should submit proposals to NIJ’s “Graduate Research Fellowship Program in Science, Technology, Engineering, and Mathematics” solicitation. Awards are anticipated to be made to successful applicant institutions in the form of a grant to cover a fellowship for the sponsored doctoral student. Awards in the amount of $32,000 will be made under this solicitation. Award funds should be used to cover all allowable expenses over the project period. Additional funds will not be provided. Final award decisions will be made by the Director of the National Institute of Justice.

**Program-Specific Information**: NIJ’s Graduate Research Fellowship Program in the Social and Behavioral Sciences is open to doctoral students in all social and behavioral science disciplines. To learn more about the program, see www.nij.gov/GRF-SBS. NIJ-2016-4321 5 Degree-granting educational institutions are encouraged to sponsor outstanding and promising doctoral students whose dissertation research has direct implications for ensuring public safety, preventing and controlling crime, and ensuring the fair and impartial administration of criminal justice in the United States. Successful applicants must demonstrate strong support from the academic institution and the dissertation chair in the development, review, and submission of the proposal as well as the execution of the proposed work. Quantitative, qualitative, primary, and secondary data analysis and mixed-method approach research studies are encouraged. Special consideration will be given to applicants who use the most rigorous research methods applicable to the proposed research topic to maximize the validity and reliability of their findings. NIJ encourages the resubmission of proposals that have addressed previous peer review comments.

**Official Applicant**: The official applicant under this solicitation is a degree-granting educational institution in the United States or its territories. To be eligible, the institution of record must be fully accredited by one of the regional institutional accreditation agencies recognized by the U.S. Secretary of Education. Applications from applicants who apply as individuals will automatically be removed from consideration. The academic institution’s institution-wide research office (e.g., office of sponsored research) must complete and submit an application electronically using Grants.gov (see What an Application Should Include). If allowed by the applicant institution, the sponsored doctoral student should be identified as the project Principal Investigator. The academic institution applicant is encouraged to submit an official statement regarding the student's progress in their current program of study. The statement of progress is not a requirement of the solicitation. If submitted, this should take the form of a document from the Office of the Registrar, or an equivalent university- or college-wide office with the authority to verify current enrollment status. Applicants are encouraged to submit copies of the doctoral student’s academic transcript. The transcript should document current matriculation toward a doctoral degree.

**Doctoral Student Eligibility Requirements**: The sponsored doctoral student must: 1. Be enrolled full-time in a doctoral degree program in a social and behavioral sciences discipline at the eligible academic institution; and 2. Propose a dissertation research topic that is relevant to providing solutions to problems that affect public safety, crime, and the fair and impartial administration of criminal justice in the United States

There are three requirements for the NIJ Graduate Research Fellowship Program that must be completed before an award can be made. It is not necessary for the student to have completed the three requirements listed below at the time of the application due date:

• The doctoral student must have completed all required course work.

• The doctoral student must have passed qualifying comprehensive exams.

• The doctoral student must be advanced to candidacy by the university.

Degree-granting academic institutions are encouraged to sponsor doctoral students who have nearly completed all Ph.D. requirements. Successful degree-granting academic applicant institutions will be required to provide documentation of their doctoral student’s completion of these requirements.

Access to all award funds will be withheld until the documentation verifying the completion of the GRF program requirements is received and approved by NIJ. Fiscal Year 2016 awards are anticipated to be made no later than September 2016. The applicant academic institution and doctoral student are cautioned not to anticipate the availability of fellowship funds for meeting any necessary or required expenses until the requirements stipulated above have been met in full. Awarded doctoral students may receive fellowship funding only while actively enrolled in the initially identified doctoral degree program and actively carrying out research toward the dissertation.

Degree-granting academic institutions whose doctoral students have completed the three requirements are encouraged to provide documentation of such completion in the application. Applicants whose doctoral students have not completed these requirements by the solicitation application deadline are encouraged to apply but should indicate, in the project timeline, the dates by which the sponsored doctoral student is expected to complete the three requirements under this section. The timeline should also provide details of other project milestones, including but not limited to, the expected timing of the dissertation prospectus defense, the writing of the dissertation, and an expected dissertation defense date. The project timeline also should include time to complete edits to the dissertation and time for submission of the final dissertation to NIJ.

Human subjects protection paperwork, including Institutional Review Board (IRB) documentation and forms and a completed Privacy Certificate, are not required at the time of application. If awarded, successful applicants will be required to submit Human Subjects Protection paperwork and a completed Privacy Certificate. The Privacy Certificate must be signed by the chair of the university’s IRB. For information on NIJ’s Human Subjects and Privacy Protection requirements, see <http://www.nij.gov/funding/humansubjects/>.

**Goals, Objectives, and Deliverables:** The ultimate goals of this solicitation are to increase the pool of researchers in the social and behavioral sciences that are involved in research relevant to the prevention and control of crime and to help ensure the fair and impartial administration of criminal justice in the United States. Through the GRF Program in the Social and Behavioral Sciences program, NIJ supports graduate education by investing in academic institutions that support outstanding and promising doctoral students. All awardees under this solicitation will be required to deliver interim and final progress reports and quarterly and final financial reports to NIJ by specified deadlines. The final deliverable for awards under this solicitation is an official signed copy of the doctoral student’s defended dissertation. Upon submission, the dissertation may be archived at the National Criminal Justice Reference Service (NCJRS). Students who receive funds under the GRF Program in the Social and Behavioral Sciences program are encouraged, but are not required to, archive their dissertation data.

**Research and Development in Forensic Science for Criminal Justice Purposes**

[**http://nij.gov/funding/Documents/solicitations/nij-2016-4305.pdf**](http://nij.gov/funding/Documents/solicitations/nij-2016-4305.pdf)

**Eligibility**

In general, NIJ is authorized to make grants to, or enter into contracts or cooperative agreements with, States (including territories), units of local government, federally recognized Indian tribal governments (as determined by the Secretary of the Interior) that perform law enforcement functions, non-profit and for-profit organizations (including tribal non-profit and forprofit organizations), institutions of higher education (including tribal institutions of higher education), and certain qualified individuals. For-profit organizations must agree to forgo any profit or management fee. NIJ may also enter into interagency agreements with federal entities in appropriate cases. Foreign governments, foreign organizations, and foreign institutions of higher education are not eligible to apply.

NIJ welcomes applications that involve two or more entities; however, one eligible entity must be the applicant and the other(s) must be proposed as subrecipient(s). The applicant must be the entity with primary responsibility for conducting and leading the research. If successful, the applicant will be responsible for monitoring and appropriately managing any subrecipients or, as applicable, for administering any procurement subcontracts that would receive federal program funds from the applicant under the award.

An eligible applicant may submit more than one application, as long as each application proposes a different project in response to the solicitation. (Applicants should also review and consider the “Duplicate Applications” note under How to Apply in Section D. Application and Submission Information.) Subrecipients may be part of multiple proposals.

NIJ may elect to make awards for applications submitted under this solicitation in future fiscal years, dependent on the merit of the applications and on the availability of appropriations. For additional eligibility information, see Section C. Eligibility Information.

**Deadline**

Applicants must register with Grants.gov prior to submitting an application. All applications are due to be submitted and in receipt of a successful validation message in Grants.gov by 11:59 p.m. eastern time on February 1, 2016. For additional application information, see Section D. Application and Submission Information.

**Overview**

With this solicitation, NIJ seeks proposals for basic or applied research and development projects that will: (1) increase the body of knowledge to guide and inform forensic science policy and practice, or (2) result in the production of useful materials, devices, systems, or methods that have the potential for forensic application. The intent of this program is to direct the findings of basic scientific research, research and development in broader scientific fields applicable to forensic science, and ongoing forensic science research toward the development of highly discriminating, accurate, reliable, cost-effective, and rapid methods for the identification, analysis, and interpretation of physical evidence for criminal justice purposes. The forensic science operational needs discussed at NIJ’s FY 2015 Forensic Science Technology Working Group (TWG) meeting may be found on NIJ.gov, and are intended to assist you in your proposal development.

**Goals, Objectives, Deliverables, and Expected Scholarly Products**

NIJ’s Research and Development in Forensic Science for Criminal Justice Purposes Program is intended to meet the following goals and objectives. Proposals should address at least one of the goals specified below. Proposed projects that address more than one goal should be separated into discrete phases that clearly identify the goal to be addressed by each phase (additional information regarding the phasing of proposals can be found in Section B. Federal Award Information.

• Fundamental/Basic Research Goal: Improve the understanding of the accuracy, reliability, and measurement validity of forensic science disciplines. Applicants may refer to Strengthening Forensic Science in the United States: A Path Forward by the National Research Council of the National Academies to review research recommendations put forth by the committee. To achieve this goal, projects should meet at least one of the following objectives:

* Conduct basic scientific research in the physical, life and cognitive sciences that is designed to increase the knowledge underlying forensic science disciplines intended for use in the criminal justice system. For the purposes of this objective, basic research studies proposed must include activities with broad application to forensic sciences related to the criminal justice system. Proposals should describe the anticipated impact of the study on one or more forensic science disciplines.
* Perform studies that examine the degree of accuracy and reliability of methods used by forensic scientists to achieve a more complete understanding of the scientific basis of forensic evidence and the interpretation of that evidence. Studies also may examine various processes within forensic methods, from the initial acceptance and examination of evidence for its probative value and quality, to the final interpretation of forensic results, including assessment of error rate.
* Conduct research studies designed to further the understanding of quantifiable measures of uncertainty in the conclusions of forensic analyses, regardless of the sources of uncertainty. Studies should seek to establish limits of reliability and accuracy that forensic methods can achieve with respect to varying conditions of forensic evidence.
* Develop new approaches to forensic analysis, including quantitation of analyses that are currently qualitative in nature (e.g., in the development of quantitative studies related to friction ridge analysis or other impression and pattern evidence).

• Applied Research Goal: Increase knowledge or understanding necessary to guide criminal justice policy and practice related to the forensic sciences. To achieve this goal, projects should meet at least one of the following objectives:

* Perform applied research to increase knowledge of physical evidence and/or its behavior. Examples include, but are not limited to, the study of fluid transfer and fluid dynamics of certain biological fluids (e.g., blood) to increase understanding of patterns deposited at crime scenes; the examination of chemical properties of NIJ-2016-4305 7 evidence for the purpose of identifying source materials; studies of the behavior of chemical compounds of forensic interest in biological systems; research to better understand aged, degraded, limited, damaged, inhibited, or otherwise compromised physical evidence (e.g., studies on the effect of environmental factors on physical evidence; studies to increase the overall understanding of the processes and mechanisms that result in the inability to obtain analytical results from evidence).
* Perform evaluation studies of technologies that are expected to have application to forensic sciences in criminal justice settings. The purpose of an evaluation must be to test a new, modified, or previously untested technology to determine whether it is effective for forensic science application. Proposals for evaluation studies should systematically use scientific methods to measure efficiency, implementation, and utility of the technology being evaluated. The primary intent of a proposed evaluation study must be to generate new knowledge or contribute to the knowledge in the forensic scientific literature. Furthermore, knowledge gained from an evaluation study should be applicable to sites other than the one(s) being evaluated. An evaluation study should result in a report suitable for publication and dissemination to guide criminal justice policy and/or practice related to the forensic sciences. The results of an evaluation study should contribute to generalizable knowledge that can be applied beyond a particular program/geography and can inform other researchers, practitioners, and/or policymakers.

• Development Goal: Produce novel and useful materials, devices, systems or methods that have the potential for forensic application for criminal justice purposes. For development projects, proposals should demonstrate potential for increased quality of result and/or decreased time/cost for forensic analyses as compared to current standard practices. In order to achieve this goal, projects should meet at least one of the following objectives:

* Improve the “front end” of the forensic analysis processes. Examples include, but are not limited to, the development of improved methods for detection and identification of evidence at crime scenes, the development of improved screening methods to help assess the probative value of physical evidence (i.e., onsite presumptive and/or confirmatory analysis of evidence), the development of improved means to remotely detect forensic evidence at a crime scene to overcome scene hazards and prevent evidence contamination, the development of nondestructive or minimally destructive methods for evidentiary sample identification and/or collection, and the development of improved tools or methods for evidence preservation and/or storage.
* Develop instrumental systems to improve analysis throughput and the reliability, reproducibility, selectivity, and/or sensitivity of current methods used in crime laboratories for forensic analysis.
* Develop tools or methods that can separate the various components of a mixture. The separation method must be successful on typical forensic samples (limited in yield, etc.) and must not reduce the efficiency of downstream forensic methods. Examples of mixtures include, but are not limited to, cells from different sources (e.g., sperm cells from female epithelial cells, epithelial cells from different sources), products of DNA processes (e.g., polymerase chain reaction (PCR) products in mixtures from two or more individuals), and trace materials. NIJ-2016-4305 8
* Develop improved tools for examining aged, degraded, limited, damaged, inhibited, or otherwise compromised physical evidence. Examples include, but are not limited to, the development of tools to determine the condition of the evidence to assist crime laboratory analysts in selecting the appropriate analytical approach, the development of methods to repair damaged evidence (without compromising sample integrity) to increase the likelihood of obtaining an analytical result, improvements to the methods for detection and/or removal or remediation of substances that inhibit the success of analysis, or other methods that will maximize the success rate of the analysis of compromised evidence.
* Develop novel approaches to forensic science methods for analysis and interpretation. Examples include streamlined, portable, high-throughput, more informative, more sensitive, less susceptible to inhibition, and other novel methods for analysis of physical evidence for criminal justice purposes.
* Develop novel approaches and/or enhance current approaches to interpret forensic data derived from physical evidence, including an assessment of the significance of association. This may include development of databases (comprehensive, searchable, easily accessible, secure databases for use in determining the statistical strength of analytical results obtained from evidence found at crime scenes) and/or analyses that provide quantitative measures and statistical evaluation of forensic evidence.

In addition to required data sets, a draft and final summary overview of research results, interim and final progress and financial reports,6 NIJ expects scholarly products to result from each award under this solicitation, taking the form of one or more published, peer-reviewed, scientific journal articles, and/or (if appropriate) law review journal articles, book chapter(s) or book(s) in the academic press, technological prototypes, patented inventions, or similar scientific products. Some projects may be chosen for technology evaluation or technology transition activities. More information, including examples of previous workshops and evaluations, can be found through the following links: www.nij.gov/topics/forensics/lab-operations/Pages/workshops.aspx and www.forensiccoe.org/Our-Impact/Sharing-Knowledge/Workshops. NIJ encourages researchers to seek guidance from or partner with crime laboratories. Such associations foster a greater understanding of the issues unique to the field of forensic science and may strengthen the scope of the proposed research plan. Information on NIJ’s forensic science research and development programs (including previously funded projects) can be found at: <http://www.nij.gov/topics/forensics/pages/welcome.aspx>.