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The U.S. Department of Justice (DOJ), Office of Justice Programs (OJP), National Institute of Justice (NIJ) is pleased to announce that it is seeking applications for funding basic scientific research that underlies the multidisciplinary field of forensic science. This program furthers the Department's mission by sponsoring research to provide objective, independent, evidence-based knowledge and tools to meet the challenges of crime and criminal justice, particularly at the State and local levels. The availability of funding for FY 2011 has not yet been determined. In FY 2010, NIJ provided over \$30 million in grants to fund research and development projects related to forensic science.

## **Solicitation: Basic Scientific Research to Support Forensic Science for Criminal Justice Purposes**

### **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 (including federally-recognized Indian tribal governments as determined by the Secretary of the Interior), nonprofit and for-profit organizations (including tribal nonprofit and for-profit 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.

### **Deadline**

Registration with Grants.gov is required prior to application submission. (See "How to Apply," page 10.)

All applications are due by 11:59 p.m. eastern time on April 12, 2011. (See "Deadlines: Registration and Application," page 3.)

### **Contact Information**

For technical assistance with submitting the application, contact the Grants.gov Customer Support Hotline at 800-518-4726 or via e-mail to support@grants.gov.

**Note:** The Grants.gov Support Hotline hours of operation are 24 hours a day, 7 days a week, except Federal holidays.

For assistance with any other requirement of this solicitation, contact NIJ by email to forensic.research@ojp.usdoj.gov.

Grants.gov number assigned to announcement: NIJ-2011-2806

SL# 000945

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# Basic Scientific Research to Support Forensic Science for Criminal Justice Purposes

## CFDA 16.560

### Overview

With this solicitation, NIJ seeks proposals for funding 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.

**Authorizing Legislation:** Title I of the Omnibus Crime Control and Safe Streets Act of 1968 (sections 201 and 202); Homeland Security Act (section 232).

### Deadlines: Registration and Application

Registration is required prior to submission. OJP strongly encourages registering with Grants.gov several weeks before the deadline for application submission. The deadline for applying for funding under this announcement is 11:59 p.m. eastern time on April 12, 2011. Please see the “How to Apply” section, page 10, for more details.

### Eligibility

Please refer to the title page for eligibility under this program.

### Program-Specific Information—Basic Scientific Research to Support Forensic Science for Criminal Justice Purposes

This solicitation seeks applications for funding 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 solicitation, the following definitions apply:

- **Forensic**—Of, relating to, or used in legal proceedings or argumentation.<sup>1</sup>
- **Science**—The observation, identification, description, experimental investigations, and theoretical explanation of natural phenomena.<sup>2</sup>
- **Basic research**—A systematic study directed toward a greater knowledge or understanding of the fundamental aspects of phenomena and of observable facts without specific applications towards any processes or products in mind. Basic research, however, may include activities with broad applications in mind.<sup>3</sup> (For the purposes of this solicitation, basic research must include activities with broad application to forensic sciences related to the criminal justice system.)

<sup>1</sup> Definition of “forensic” is taken from *Webster’s II New Riverside University Dictionary*.

<sup>2</sup> Definition of “science” is taken from *Webster’s II New Riverside University Dictionary*.

<sup>3</sup> Definition taken from: OMB Circular A–11, Preparation, Submission, and Execution of the Budget, Section 84—Character Classification (Schedule C).

- Applied research—The systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.<sup>4</sup>
- Development—The systematic application of knowledge or understanding, directed toward the production of useful materials, devices, systems, or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.<sup>5</sup>

Basic scientific research proposals to this solicitation should be designed to lead to:

- a. Subsequent applied research and advanced technology developments in forensic science-related technologies intended for use in the criminal justice system, and/or
- b. New and improved crime laboratory functional capabilities that result in faster, more robust, more informative, less costly, or less labor-intensive identification, collection, preservation, and/or analysis of evidence.

Proposals should describe the anticipated impact of the basic scientific research on one or more forensic science disciplines. Some of the forensic science disciplines are listed below (where available, links have also been provided to sites containing additional information).

- DNA and forensic biology ([www.dna.gov](http://www.dna.gov), [www.cstl.nist.gov/strbase/](http://www.cstl.nist.gov/strbase/)).
- Forensic crime scene analysis ([www.swgstain.org](http://www.swgstain.org)).
- Latent print and other pattern/impression evidence ([www.swqfast.org](http://www.swqfast.org), [www.swgtread.org](http://www.swgtread.org)).
- Forensic anthropology and forensic odontology ([www.swganth.org/](http://www.swganth.org/)).
- Controlled substances ([www.swgdrug.org](http://www.swgdrug.org)).
- Fire debris analysis and arson scene investigations ([www.ncfs.ucf.edu/twgfex](http://www.ncfs.ucf.edu/twgfex)).
- Firearms and toolmark identification ([www.swggun.org](http://www.swggun.org)).
- Questioned documents ([www.swgdoc.org/](http://www.swgdoc.org/)).
- Trace evidence ([www.swgmat.org](http://www.swgmat.org)).
- Forensic pathology.
- Forensic toxicology ([www.swqtox.org](http://www.swqtox.org)).

Applicable physical, life and cognitive sciences may include:

- Life Sciences (e.g., biology, genetics).
- Physics.
- Medicine/Dentistry (e.g., neurology, pathology, odontology).
- Mathematical Sciences.
- Material Science.
- Computer Science.
- Chemistry and Pharmacology.
- Psychology.

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<sup>4</sup>Ibid.

<sup>5</sup>Ibid.

### **Note: FY 2010 Solicitations That Will Not Be Reissued in FY 2011**

The following FY 2010 solicitations will not be reissued in FY 2011. Applications that would previously have been submitted under these solicitations may, as appropriate, now be submitted to this FY 2011 solicitation, “Basic Scientific Research to Support Forensic Science for Criminal Justice Purposes” or to the planned FY 2011 solicitation, “Applied Research and Development in Forensic Science for Criminal Justice Purposes.”

- Forensic DNA Research and Development
- Fundamental Research to Improve Understanding of the Accuracy, Reliability, and Measurement Validity of Forensic Science Disciplines
- Research and Development in Forensic Crime Scene and Medicolegal Death Investigations
- Research and Development on Impression Evidence
- Research and Development in the Forensic Analysis of Trace Evidence
- Research and Development in Forensic Toxicology
- Research and Development in Forensic Anthropology and Forensic Odontology
- Research and Development in the Area of Controlled Substances Detection and Analysis
- Research and Development in the Forensic Analysis of Fire and Arson Evidence
- Research and Development in Instrumental Analysis for Forensic Science Applications

### **New Investigator Opportunities**

NIJ is interested in funding new investigators in forensic science research as it pertains to NIJ’s mission. Proposals whose principal investigators are defined as “new investigators” may, in appropriate circumstances, be given special consideration in award decisions.

To be considered a “new investigator” for purposes of this solicitation, one of the two sets of criteria below must be satisfied:

- The principal investigator must have, no earlier than April 1, 2007, received an initial appointment in the United States to a full-time junior faculty position at a university or to an equivalent full-time staff scientist position in a research institution; must at the time of application submission hold such a full-time appointment; and must never have received NIJ funding for a research project, other than a Graduate Research Fellowship program grant. (Typically, the appropriate faculty rank is that of Assistant Professor, although some institutions may use a different title to designate junior faculty status.)
- The principal investigator must be an established researcher who receives research funding originating from a federal science agency, but has not successfully competed for NIJ funding as a principal investigator or collaborative researcher in the last 10 years. The investigator must hold a full-time appointment in the United States to a faculty position at a university or an equivalent position as a scientist on the staff of a research institution at the time of application submission.

In the case of a grant application that involves more than one principal investigator, all principal investigators must meet the definition of “new investigator” in order for the application to be considered as one from a “new investigator.”

## Reading Resources:

Information on NIJ's research and development programs related to the forensic sciences (including previously funded projects) can be found at:

- [www.dna.gov/research/](http://www.dna.gov/research/).
- [www.ojp.usdoj.gov/nij/topics/forensics/welcome.htm](http://www.ojp.usdoj.gov/nij/topics/forensics/welcome.htm).

The following are examples of documents that may provide additional information to prospective applicants about forensic sciences.

- *Criminalistics, An Introduction to Forensic Science, 7th Edition*, by Saferstein, R. (Upper Saddle River, NJ: Prentice Hall, 1998) ISBN 0-13-592940-7.
- *Forensic Science Handbook, Volume I, 2nd Edition*, edited by Saferstein, R. (Englewood Cliffs, NJ: Prentice Hall, 2002) ISBN 0-13-091058-9.
- *Forensic Science Handbook, Volume II, 2nd Edition*, edited by Saferstein, R. (Englewood Cliffs, NJ: Prentice Hall, 2005) ISBN 0-13-112434-X.
- *Forensic Science Handbook, Volume III*, edited by Saferstein, R. (Englewood Cliffs, NJ: Prentice Hall, 1993) ISBN 0-13-325390-2.
- *Fundamentals of Forensic Science*, by Houck, M., Siegel, J. (Burlington, MA: Elsevier Academic Press, 2006) ISBN 0-12-356762-9.
- *Forensic Chemistry*, by Bell, S. (Upper Saddle River, NJ: Pearson Prentice Hall, 2006) ISBN 0-13-147835-4.
- *Forensic DNA Typing, Second Edition: Biology, Technology, and Genetics of STR Markers*, by Butler, J. (Burlington, MA: Elsevier Academic Press, 2005) ISBN 0-12-147952-8.
- *Fundamentals of Forensic DNA Typing*, by Butler, J. (San Diego, CA: Academic Press, 2009) ISBN 0-12-374999-4.
- *Forensic Pathology, Practical Aspects of Criminal & Forensic Investigations, 2nd Edition*, by Di Maio, D., Di Maio, V. (Boca Raton, FL: CRC Press, 2001) ISBN 0-84-930072-X.
- *Spitz and Fisher's Medicolegal Investigation of Death: Guidelines for the Application of Pathology to Crime Investigation*, by Spitz, W., Spitz D., Fisher, R. (Springfield, IL: Charles C. Thomas Publisher, 2006) ISBN 0-398-07544-1.
- *Quantitative-Qualitative Friction Ridge Analysis: An Introduction to Basic and Advanced Ridgeology*, by Ashbaugh, D. (Boca Raton, FL: CRC Press, 1999) ISBN 0-8493-7007-8.
- *Handbook of Digital Forensics and Investigation*, by Casey, E. (London, UK: Elsevier Academic Press, 2010) ISBN 0-12-374267-4.
- *Digital Image Processing: An Algorithmic Introduction Using Java*, by Burger, W., Burge, M.J. (New York, NY: Springer Science+Business Media, LLC, 2008) ISBN 1-84628-379-6.
- *Principles of Forensic Toxicology: Revised and Updated, 2nd Edition*, by Levine, B. (Washington, DC: American Association for Clinical Chemistry, Inc., 2006) ISBN 1-59-425053-7.

- “Confirmation bias: A ubiquitous phenomenon in many guises,” by Nickerson, R. S. *Review of General Psychology* 2(2):175–220.
- “The vision in 'blind' justice: Expert perception, judgment and visual cognition in forensic pattern recognition,” by Dror, I. E. and Cole, S. *Psychonomic Bulletin and Review* 17(2):161–167.

**Amount and length of awards:** Total funding for this solicitation and the number of awards made will depend on the availability of funds, the quality of the applications, and other pertinent factors. **All awards are subject to the availability of appropriated funds and to any modifications or additional requirements that may be imposed by law.** In fiscal year 2010, NIJ provided over \$30 million in grants to fund research and development projects related to forensic science, including DNA. NIJ funding for an individual research or development project rarely exceeds \$500,000 annually, though total funding for projects requiring multiple years to complete has exceeded \$1 million in some cases. If feasible, NIJ recommends that applicants divide the proposed work into discrete phases, with each phase resulting in the delivery of a measurable deliverable. Applicants should try to structure the phases so that the funding required in any fiscal year will not exceed \$500,000. Although NIJ cannot guarantee that subsequent phases, stages, or tasks will be funded, this approach will enable NIJ to fund the proposed work incrementally, depending on, among other things, the quality of the deliverable at the end of each phase, strategic priorities, and the availability of funds. However, applicants should not divide their work if it is not feasible to do so without impairing the technical and programmatic soundness of their approach. Note: Deliverables (e.g., technical reports) will be required at the end of each phase to enable NIJ to assess the progress of the work and assist NIJ in making reasoned determinations as to the suitability of funding the next phase of the work.

Applicants should be aware that the total period for an award ordinarily will not exceed 3 years. Award announcements are expected to be made by September 30, 2011. Applicants may wish to consider proposing project period start dates commencing on January 1, 2012.

**Please note:** All applicants under this solicitation must comply with Department of Justice regulations on confidentiality and human subjects’ protection. See “Other Requirements for OJP Applications” at [www.ojp.usdoj.gov/funding/other\\_requirements.htm](http://www.ojp.usdoj.gov/funding/other_requirements.htm).

**What will not be funded:**

1. Provision of training or direct service.
2. Proposals primarily to purchase equipment, materials, or supplies. (The budget may include these items if they are necessary to conduct basic research.)
3. Work that will be funded under another specific solicitation.
4. Proposals that do not contain a research component or do not respond to the specific goals of this solicitation.
5. Proposals addressing applied research in forensic science. Applicants proposing such studies may consider submitting applications to the planned FY 2011 solicitation entitled “Applied Research and Development in Forensic Science for Criminal Justice Purposes.”
6. Proposals addressing both a basic research *and* a development component. Applicants should submit basic research studies only.

## Budget Information

**Limitation on Use of Award Funds for Employee Compensation; Waiver:** With respect to any award of more than \$250,000 made under this solicitation, Federal funds may not be used to pay total cash compensation (salary plus bonuses) to any employee of the award recipient at a rate that exceeds 110% of the maximum annual salary payable to a member of the Federal Government's Senior Executive Service (SES) at an agency with a Certified SES Performance Appraisal System for that year. (The 2011 salary table for SES employees is available at <http://www.opm.gov/oca/11tables/indexSES.asp>.) Note: A recipient may compensate an employee at a higher rate, provided the amount in excess of this compensation limitation is paid with non-Federal funds. (Any such additional compensation will not be considered matching funds where match requirements apply.)

The limitation on compensation rates allowable under an award may be waived on an individual basis at the discretion of the Director of the National Institute of Justice. An applicant that wishes to request a waiver must include a detailed justification in the budget narrative of its application. Unless the applicant submits a waiver request and justification with the application, the applicant should anticipate that OJP will request the applicant to adjust and resubmit its budget.

The justification should include: the particular qualifications and expertise of the individual, the uniqueness of the service being provided, the individual's specific knowledge of the program or project being undertaken with award funds, and a statement explaining that the individual's salary is commensurate with the regular and customary rate for an individual with his/her qualifications and expertise, and for the work that is to be done.

**Match Requirement:** See "Cofunding" under "What an Application Should Include" (below).

## Performance Measures

To assist in fulfilling the Department's responsibilities under the Government Performance and Results Act (GPRA), Public Law 103-62, applicants that receive funding under this solicitation must provide data that measure the results of their work. Any award recipient will be required, post award, to provide the data requested in the "Data Grantee Provides" column so that OJP can calculate values for the "Performance Measures" column. Performance measures for this solicitation are as follows:

Objective	Performance Measure(s)	Data Grantee Provides
Gain knowledge and understanding of the forensic sciences for criminal justice purposes through basic scientific research.	<ol style="list-style-type: none"> <li>1. Relevance to the needs of the field as measured by whether the grantee's substantive scope did not deviate from the funded proposal or any subsequent agency modifications to the scope.</li> <li>2. Quality of the research as assessed by peer reviewers.</li> <li>3. Quality of management as measured by whether significant interim project milestones were achieved, final deadlines were met, and costs remained within approved limits.</li> <li>4. If applicable, number of NIJ final grant reports, NIJ research documents, and grantee research documents published.</li> </ol>	<ol style="list-style-type: none"> <li>1. A final report providing a comprehensive overview of the project and a detailed description of the project design, data, and methods; a full presentation of scientific findings; and a thorough discussion of the implications of the project findings for increasing the knowledge underlying forensic science disciplines intended for use in the criminal justice system.</li> <li>2. Quarterly financial reports, semi-annual progress reports, and a final progress report.</li> <li>3. If applicable, citation to report(s)/document(s)</li> </ol>

Submission of performance measures data is not required for the application. Instead, applicants should discuss in their applications their proposed methods for collecting data for performance measures. Please refer to the section "What an Application Should Include" (below) for additional information.

**Note on project evaluations:** Applicants that propose to use funds awarded through this solicitation to conduct project evaluations should be aware that certain project evaluations (such as systematic investigations designed to develop or contribute to generalizable knowledge) may constitute "research" for purposes of applicable DOJ human subjects protections. However, project evaluations that are intended only to generate internal improvements to a program or service, or are conducted only to meet OJP's performance measure data reporting requirements, likely do not constitute "research." Applicants should provide sufficient information for OJP to determine whether the particular project they propose would either intentionally or unintentionally collect and/or use information in such a way that it meets the DOJ regulatory definition of research.

Research, for the purposes of human subjects protection for OJP-funded programs, is defined as, "a systematic investigation, including research development, testing, and evaluation, designed to develop or contribute to generalizable knowledge." 28 C.F.R. § 46.102(d). For additional information on determining whether a proposed activity would constitute research, see the decision tree to assist applicants on the "Research and the Protection of Human Subjects" section of the OJP "Other Requirements for OJP Applications" Web page

([www.ojp.usdoj.gov/funding/other\\_requirements.htm](http://www.ojp.usdoj.gov/funding/other_requirements.htm)). Applicants whose proposals may involve a research or statistical component also should review the “Confidentiality” section on that Web page.

## Notice of New Post-Award Reporting Requirements

Applicants should anticipate that all recipients (other than individuals) of awards of \$25,000 or more under this solicitation, consistent with the Federal Funding Accountability and Transparency Act of 2006 (FFATA), will be required to report award information on any first-tier subawards totaling \$25,000 or more, and, in certain cases, to report information on the names and total compensation of the five most highly compensated executives of the recipient and first-tier subrecipients. Each applicant entity must ensure that it has the necessary processes and systems in place to comply with the reporting requirements should it receive funding. Reports regarding subawards will be made through the FFATA Subaward Reporting System (FSRS), found at [www.fsrs.gov](http://www.fsrs.gov).

Please note also that applicants should anticipate that no subaward of an award made under this solicitation may be made to a subrecipient (other than an individual) unless the potential subrecipient acquires and provides a Data Universal Numbering System (DUNS) number.

## How to Apply

Applications will be submitted through Grants.gov. Grants.gov is a “one-stop storefront” that provides a unified process for all customers of Federal awards to find funding opportunities and apply for funding. Complete instructions on how to register and submit an application can be found at [www.Grants.gov](http://www.Grants.gov). If the applicant experiences technical difficulties at any point during this process, please call the Grants.gov Customer Support Hotline at **800-518-4726**, 24 hours a day, 7 days a week, except Federal holidays. Registering with Grants.gov is a one-time process; however, **processing delays may occur, and it can take up to several weeks** for first-time registrants to receive confirmation and a user password. OJP highly recommends that applicants start the registration process as early as possible to prevent delays in submitting an application package by the specified application deadline.

All applicants are required to complete the following steps:

1. **Acquire a DUNS number.** A DUNS number is required for [Grants.gov](http://Grants.gov) registration. In general, the Office of Management and Budget requires that all applicants (other than individuals) for Federal funds include a DUNS (Data Universal Numbering System) number in their applications for a new award or renewal of an existing award. A DUNS number is a unique nine-digit sequence recognized as the universal standard for identifying and keeping track of entities receiving Federal funds. The identifier is used for tracking purposes and to validate address and point-of-contact information for Federal assistance applicants, recipients, and subrecipients. The DUNS number will be used throughout the grant life cycle. Obtaining a DUNS number is a free, one-time activity. Obtain a DUNS number by calling Dun and Bradstreet at 866-705-5711 or by applying online at [www.dnb.com](http://www.dnb.com). Individuals are exempt from this requirement.
2. **Acquire or renew registration with the Central Contractor Registration (CCR) database.** OJP requires that all applicants (other than individuals) for Federal financial assistance maintain current registrations in the Central Contractor Registration (CCR)

database. An applicant must be registered in the CCR to successfully register in Grants.gov. The CCR database is the repository for standard information about Federal financial assistance applicants, recipients, and subrecipients. Organizations that have previously submitted applications via Grants.gov are already registered with CCR, as it is a requirement for Grants.gov registration. Please note, however, that applicants must **update or renew their CCR registration annually** to maintain an active status. Information about CCR registration procedures can be accessed at [www.ccr.gov](http://www.ccr.gov).

3. **Acquire an Authorized Organization Representative (AOR) and a Grants.gov username and password.** Complete the AOR profile on Grants.gov and create a username and password. The applicant organization's DUNS Number must be used to complete this step. For more information about the registration process, go to [www.grants.gov/applicants/get\\_registered.jsp](http://www.grants.gov/applicants/get_registered.jsp).
4. **Acquire confirmation for the AOR from the E-Business Point of Contact (E-Biz POC).** The E-Biz POC at the applicant organization must log into Grants.gov to confirm the applicant organization's AOR. Please note that there can be more than one AOR for the organization.
5. **Search for the funding opportunity on Grants.gov.** Please use the following identifying information when searching for the funding opportunity on Grants.gov. The Catalog of Federal Domestic Assistance (CFDA) number for this solicitation is 16.560, titled "National Institute of Justice Research, Evaluation, and Development Project Grants," and the funding opportunity number is NIJ-2011-2806.
6. **Submit an application consistent with this solicitation by following the directions in Grants.gov.** Within 24-48 hours after submitting the electronic application, the applicant should receive an e-mail validation message from Grants.gov. The validation message will state whether the application has been received and validated, or rejected, with an explanation. **Important:** Applicants are urged to submit applications **at least 72 hours prior** to the due date of the application to allow time to receive the validation message and to correct any problems that may have caused a rejection notification.

**Note: Grants.gov will forward the application to OJP's Grants Management System (GMS). GMS does not accept executable file types as application attachments.** These disallowed file types include, but are not limited to, the following extensions: ".com," ".bat," ".exe," ".vbs," ".cfg," ".dat," ".db," ".dbf," ".dll," ".ini," ".log," ".ora," ".sys," and ".zip."

### **Experiencing Unforeseen Grants.gov Technical Issues**

If an applicant experiences unforeseen Grants.gov technical issues beyond the applicant's control that prevent submission of its application by the deadline, the applicant must contact NIJ staff **within 24 hours after the deadline** and request approval to submit its application. At that time, NIJ staff will instruct the applicant to submit specific information detailing the technical difficulties. The applicant must e-mail: a description of the technical difficulties, a timeline of submission efforts, the complete grant application, the applicant DUNS number, and Grants.gov Help Desk tracking number(s) received. After the program office reviews all of the information submitted, and contacts the Grants.gov Help Desk to validate the technical issues reported, OJP will contact the applicant to either approve or deny the request to submit a late application. If the technical issues reported cannot be validated, the application will be rejected as untimely.

To ensure a fair competition for limited discretionary funds, the following conditions are not valid reasons to permit late submissions: (1) failure to begin the registration process in sufficient time, (2) failure to follow Grants.gov instructions on how to register and apply as posted on its Web site, (3) failure to follow all of the instructions in the OJP solicitation, and (4) technical issues experienced with the applicant's computer or information technology (IT) environment.

Notifications regarding known technical problems with Grants.gov, if any, are posted at the top of the OJP funding Web page, [www.ojp.usdoj.gov/funding/solicitations.htm](http://www.ojp.usdoj.gov/funding/solicitations.htm).

## What an Application Should Include

This section describes what an application should include and sets out a number of elements. Applicants should anticipate that failure to submit an application that contains all of the specified elements may negatively affect the review of the application; and, should a decision be made to make an award, it may result in the inclusion of special conditions that preclude access to or use of award funds pending satisfaction of the conditions.

Moreover, applicants should anticipate that some application elements are so critical that applications unresponsive to the scope of the solicitation, or that do not include a program narrative, budget detail worksheet including a budget narrative, and resumes/curriculum vitae of key personnel will neither proceed to peer review nor receive further consideration.

OJP strongly recommends use of appropriately descriptive file names (e.g., "Program Narrative," "Budget Detail Worksheet and Budget Narrative," "Timelines," "Memoranda of Understanding," "Resumes") for all attachments. OJP recommends that resumes be included in a single file.

### 1. Information to complete the Application for Federal Assistance (SF-424)

The SF-424 is a standard form required for use as a cover sheet for submission of pre-applications, applications, and related information. Grants.gov and GMS take information from the applicant's profile to populate the fields on this form. When selecting "type of applicant," if the applicant is a for-profit entity, please select "For-Profit Organization" or "Small Business" (as applicable).

### 2. Program Narrative

The program narrative section of the application should not exceed 12 single-spaced pages in 12-point font with 1-inch margins, of which a minimum of 6 pages should be dedicated to the description of the project/program design and execution. If included in the main body of the program narrative, then tables, charts, figures, and other illustrations do count toward the 12-page limit for the narrative section. Abstract, table of contents, appendices, and government forms do not count toward the 12-page limit for the narrative section.

If the program narrative fails to comply with these length-related restrictions, noncompliance may be considered in peer review and in final award decisions.

Program Narrative Guidelines:

- a. **Title Page** (should include a list of Key Words/Phrases relevant to the proposed research).
- b. **Project Abstract** (not counted against the 12-page program narrative limit and not to exceed 600 words).
- c. **Table of Contents** (not counted against the 12-page program narrative limit).
- d. **Main body.** The main body of the program narrative should describe the project in depth. The following sections should be included as part of the program narrative:
  - Statement of the Problem.
  - Project/Program Design and Execution (should account for a minimum of 6 pages of the main body of the narrative).
  - Capabilities/Competencies.
  - Impact/Outcomes, Evaluation and Dissemination.
  - Plan for Collecting the Data Required for This Solicitation's Performance Measures. **Note:** Submission of performance measures data is not required for the application. Performance measures are included as an alert that successful applicants will be required to submit specific data to NIJ as part of their reporting requirements. For the application, the applicant should indicate an understanding of these requirements and discuss how the applicant will gather the required data, should the applicant receive funding.

**Note:** Within the above five sections, the narrative should address:

  - Purpose, goals, and objectives.
  - Review of relevant literature.
  - Implications of the basic scientific research for increasing the knowledge underlying forensic science disciplines intended for use in the criminal justice system.
  - Management plan and organization.
- e. **Appendices** (not counted against the 12-page program narrative limit) include:
  - Bibliography/references.
  - Any tools/instruments, questionnaires, tables/charts/graphs, or maps pertaining to the proposed study that are supplemental to such items included in the narrative (tables, charts, graphs, or other relevant illustrations essential for comprehension of the project/program design should be included in the main body of the narrative).
  - Supporting Data—Includes any preliminary data to support the investigator's ability to perform the work and/or proof of principle for the proposed research.
  - Curriculum vitae, resumes or biographical sketches of key personnel (Curriculum vitae, resumes or biographical sketches should be limited to no more than 2 pages per person).
  - Project timeline and research calendar with expected milestones.

- Research independence and integrity (see “Selection Criteria,” below).
- Human Subjects Protection Paperwork including Institutional Review Board (IRB) documentation and forms (see [www.ojp.gov/nij/funding/humansubjects/human-subjects.htm](http://www.ojp.gov/nij/funding/humansubjects/human-subjects.htm)).
- Privacy Certificate (for further guidance go to [www.ojp.gov/nij/funding/humansubjects/privacy-certificate-guidance.htm](http://www.ojp.gov/nij/funding/humansubjects/privacy-certificate-guidance.htm)).
- Documentation of “new investigator” status, if applicable.
- Other funding:
  - List of previous and current NIJ awards to applicant organization and investigator(s).
  - List of current and pending non-NIJ support for each investigator collaborating on this proposal.
  - List of other agencies, organizations, or funding sources to which this proposal has been submitted (if applicable).
- Letters of cooperation/support or administrative agreements from organizations collaborating in the project, memoranda of understanding (MOUs), or letters of intent to establish MOUs (if applicable).
- Other materials specified by the solicitation.

### 3. Budget Detail Worksheet and Budget Narrative

#### a. Budget Detail Worksheet

A sample Budget Detail Worksheet can be found at [www.ojp.gov/funding/forms/budget\\_detail.pdf](http://www.ojp.gov/funding/forms/budget_detail.pdf). If the budget is submitted in a different format, the budget categories listed in the sample budget worksheet should be included.

For questions pertaining to budget and examples of allowable and unallowable costs, please see the OJP Financial Guide at [www.ojp.usdoj.gov/financialguide/index.htm](http://www.ojp.usdoj.gov/financialguide/index.htm).

#### b. Budget Narrative

The Budget Narrative should thoroughly and clearly describe every category of expense listed in the Budget Detail Worksheet. The narrative should be mathematically sound and correspond with the information and figures provided in the Budget Detail Worksheet. The narrative should explain how all costs were estimated and calculated and how they are relevant to the completion of the proposed project. The narrative may include tables for clarification purposes but need not be in a spreadsheet format. As with the Budget Detail Worksheet, the Budget Narrative should be broken down by year.

**Cofunding:** A grant made by NIJ under this solicitation may account for up to 100 percent of the total cost of the project. The application should indicate whether it is feasible for the applicant to contribute cash, facilities, or services as non-Federal support for the project. The application should identify generally any such contributions that the applicant expects to make and the proposed budget should indicate in detail which items, if any, will be supported with non-Federal contributions.

4. **Indirect Cost Rate Agreement** (if applicable)

Indirect costs are allowed only if the applicant has a federally approved indirect cost rate. (This requirement does not apply to units of local government.) A copy of the rate approval should be attached. If the applicant does not have an approved rate, one can be requested by contacting the applicant's cognizant Federal agency, which will review all documentation and approve a rate for the applicant organization or, if the applicant's accounting system permits, costs may be allocated in the direct cost categories. If DOJ is the cognizant Federal agency, obtain information needed to submit an indirect cost rate proposal at [www.ojp.usdoj.gov/financialguide/part3/part3chap17.htm](http://www.ojp.usdoj.gov/financialguide/part3/part3chap17.htm).

5. **Tribal Authorizing Resolution** (if applicable)

If an application is being submitted by either (1) a tribe or tribal organization or (2) a third party proposing to provide direct services or assistance to residents on tribal lands, then a current authorizing resolution of the governing body of the tribal entity or other enactment of the tribal council or comparable governing body authorizing the inclusion of the tribe or tribal organization and its membership should be included with the application. In those instances when an organization or consortium of tribes proposes to apply for a grant on behalf of a tribe or multiple specific tribes, then the application should include a resolution from all tribes that will be included as a part of the services/assistance provided under the grant. A consortium of tribes for which existing consortium bylaws allow action without support from all tribes in the consortium (i.e., without authorizing resolution or other enactment of each tribal governing body) may submit a copy of its consortium bylaws with the application in lieu of tribal resolutions.

6. **Additional Attachments**

**List of Entities Involved in the Project**

An application should include a standalone attachment entitled "List of Entities" that lists the names of all entities that will be involved in the work. This list should include, but is not limited to: the organizations at which the investigators are employed; academic institutions at which grant-funded researchers are employed or enrolled; organizations that may receive subawards or contracts; and any organization(s) named in letters of cooperation/support, administrative agreements from organizations collaborating in the project, MOUs, or letters of intent to establish MOUs.

7. **Other Standard Forms**

Additional forms that may be required in connection with an award are available on OJP's funding page at [www.ojp.usdoj.gov/funding/forms.htm](http://www.ojp.usdoj.gov/funding/forms.htm). For successful applicants, receipt of funds may be contingent upon submission of all necessary forms. Please note in particular the following forms.

- a. Certifications Regarding Lobbying; Debarment, Suspension and Other Responsibility Matters; and Drug-Free Workplace Requirements (required to be submitted in GMS prior to the receipt of any award funds).
- b. Disclosure of Lobbying Activities (required for any applicant that expends any funds for lobbying activities; this form must be downloaded, completed, and then uploaded).

- c. Accounting System and Financial Capability Questionnaire (required for any applicant other than an individual that is a non-governmental entity and that has not received any award from OJP within the past 3 years; this form must be downloaded, completed, and then uploaded).
- d. Standard Assurances (required to be submitted in GMS prior to the receipt of any award funds).

## Selection Criteria

Applications that meet basic minimum requirements will be evaluated by peer reviewers using the following criteria.

Depending on the number of applications received, applications may be categorized into discrete groups for purposes of peer review and/or selection for award.

### **Statement of the Problem** (Understanding of the problem and its importance)—5%

The proposal defines and demonstrates an understanding of the basic scientific problem.

1. Clarity of the description of the problem.
2. Strength of citations and other appropriate information to support the understanding of the problem.
3. Clarity of the description of how the scientific problem relates to a problem existing in forensic sciences as they relate to the criminal justice system.

### **Project/Program Design and Execution** (Quality and technical merit)—50%

1. Awareness of the state of current research and identification of research gaps.
2. Soundness of methods and analytic and technical approach. (The overall strategy, methodology, and analyses should be well-reasoned and appropriate to accomplish the specific aims of the project.)
3. Feasibility of proposed project and strength of supporting data. (The proof-of-principle of the proposed basic scientific research should be established and supported by preliminary data presented in or referenced in the proposal. More innovative plans and/or plans with a higher potential for failure should be counterbalanced to manage the inherent risk (e.g., by firm theoretical basis; reasonable preliminary data, depending on the mechanism; the track record of the lead investigators; and an outstanding scientific and management plan.)
4. Practicality of the proposed timeline relative to the project design. (Are the timeline and milestones logical and realistic? Are milestones adequately developed and quantitative, to serve as effective guidance for assessment of progress by the investigators and NIJ?)
5. Awareness of pitfalls and feasibility of proposed actions to minimize and/or mitigate these. (Are key scientific and technical barriers and dependencies identified?)
6. Innovation and creativity (when appropriate). (To what extent does the proposed project suggest and explore creative, original, or potential transformative concepts?)

**Capabilities/Competencies** (Capabilities, demonstrated productivity, and experience of applicants)—30%

1. Qualifications and experience of proposed staff. (Principal investigators (PIs) should have appropriate experience and training and should demonstrate an ongoing record of accomplishments that have advanced their field(s). If the project is collaborative or multi-PI, investigators should have complementary and integrated expertise.)
2. Qualifications of the PI(s). (The PI(s) should have a proven record of publishing in high-impact, peer-reviewed scientific journals.)
3. Demonstrated ability of proposed staff and organization to manage the effort.
4. Adequacy of the plan to manage the project, including how various tasks are subdivided and resources are used.
5. Strength of the scientific environment (e.g., institutional support, equipment and other physical resources, or collaborative arrangements) in which the work will be done and its contribution to the probability of success.

**Impact/Outcomes, Evaluation and Dissemination** (Relevance to increasing the scientific knowledge underlying forensic science disciplines intended for use in the criminal justice system)—15%

1. Potential for significant advances in scientific understanding of the problem.
2. Potential for significant advances in the physical, life, and cognitive science fields, with a broad impact on forensic sciences intended for use in the criminal justice system.
3. Well-defined plan for the grant recipient to disseminate results to appropriate audiences, including researchers, and, in line with NIJ's mission, forensic science researchers and practitioners in the criminal justice system. (Does the proposal include a clear description of how final research findings will be shared? Does the dissemination strategy include intentions to publish in high-impact, peer-reviewed scientific journals? Does the dissemination strategy include a plan to maximize the outreach to researchers and practitioners in the criminal justice system?)

### **Budget**

Reviewers will consider and may comment on the following additional items in the context of scientific and technical merit.

1. Total cost of the project relative to the perceived benefit.
2. Appropriateness of the budget relative to the level of effort and proposed timeline.
3. Leveraging the existing scientific environment to conserve costs.

The budget criteria also will be considered by the program office.

### **Research Independence and Integrity**

Regardless of a proposal's rating under the criteria outlined above, in order to receive funds, the applicant's proposal must demonstrate research independence, including appropriate safeguards to ensure research objectivity and integrity.

For purposes of this solicitation, research independence and integrity pertains only to ensuring that the design, conduct, or reporting of research funded by NIJ grants, cooperative agreements, or contracts will not be biased by any financial interest on the part of the investigators responsible for the research or on the part of the applicant.

In the appendix dealing with research independence and integrity, the applicant must explain the process and procedures that the applicant has put in place to identify and manage potential financial conflicts of interest on the part of its staff, consultants, and/or subrecipients. It must also identify any potential organizational financial conflicts of interest on the part of the applicant with regard to the proposed research. If the applicant believes that there are no potential organizational financial conflicts of interest, the applicant must provide a brief narrative explanation of why it believes that to be the case.

Where potential organizational financial conflicts of interest exist, in the appendix the applicant must identify the safeguards the applicant has put in place to address those conflicts of interest.

Considerations in evaluating research independence and integrity will include, but may not be limited to, the adequacy of the applicant's efforts to identify factors that could affect the objectivity/integrity of the proposed staff and/or the organization in carrying out the research, development, or evaluation activity; and the adequacy of the applicant's existing or proposed remedies to control any such factors.

## **Review Process**

OJP is committed to ensuring a fair and open process for awarding grants. NIJ reviews the application to make sure that the information presented is reasonable, understandable, measurable, and achievable, as well as consistent with the solicitation.

Peer reviewers will review the applications submitted under this solicitation that meet basic minimum requirements. NIJ may use either internal peer reviewers, external peer reviewers, or a combination to review the applications under this solicitation. An external peer reviewer is an expert in the field of the subject matter of a given solicitation who is NOT a current U.S. Department of Justice employee. An internal reviewer is a current U.S. Department of Justice employee who is well-versed or has expertise in the subject matter of this solicitation. Eligible applications will be evaluated, scored, and rated by a peer review panel. Peer reviewers' ratings and any resulting recommendations are advisory only. In addition to peer review ratings, considerations for award recommendations and decisions may include, but are not limited to, underserved populations, geographic diversity, strategic priorities, past performance, "new investigator" status, and available funding.

The Office of the Chief Financial Officer (OCFO), in consultation with NIJ, conducts a financial review of applications for potential discretionary awards to evaluate the fiscal integrity and financial capability of applicants; examines proposed costs to determine if the budget detail worksheet and budget narrative accurately explain project costs; and determines whether costs are reasonable, necessary, and allowable under applicable Federal cost principles and agency regulations.

All final award decisions will be made by the Director of the National Institute of Justice, who also may give consideration to factors including, but not limited to, underserved populations, geographic diversity, strategic priorities, past performance, "new investigator" status, and available funding when making awards.

## Additional Requirements

Applicants selected for awards must agree to comply with additional legal requirements upon acceptance of an award. OJP strongly encourages applicants to review the information pertaining to these additional requirements prior to submitting an application. Additional information for each requirement can be found at [www.ojp.usdoj.gov/funding/other\\_requirements.htm](http://www.ojp.usdoj.gov/funding/other_requirements.htm).

- Civil Rights Compliance
- Faith-Based and Other Community Organizations
- Confidentiality
- Research and the Protection of Human Subjects
- Anti-Lobbying Act
- Financial and Government Audit Requirements
- National Environmental Policy Act (NEPA)
- DOJ Information Technology Standards (if applicable)
- Single Point of Contact Review
- Non-Supplanting of State or Local Funds
- Criminal Penalty for False Statements
- Compliance with Office of Justice Programs Financial Guide
- Suspension or Termination of Funding
- Nonprofit Organizations
- For-profit Organizations
- Government Performance and Results Act (GPRA)
- Rights in Intellectual Property
- Federal Funding Accountability and Transparency Act (FFATA) of 2006
- Awards in Excess of \$5,000,000 – Federal Taxes Certification Requirement
- Active CCR Registration

If a proposal is funded, the award recipient will be required to submit several reports and other materials, including:

**Final technical report:** The final report should be a comprehensive overview of the project and should include a detailed description of the project design, data, and methods; a full presentation of scientific findings, placed in the context of existing literature; and a thorough discussion of the implications of the project findings for increasing the knowledge underlying forensic science disciplines intended for use in the criminal justice system. It must contain an abstract of no more than 600 words and an executive summary of 2,500 to 4,000 words.

A draft of the final technical report, abstract, and executive summary must be submitted 90 days before the end date of the grant. The draft final report will be peer reviewed upon submission. The reviews will be forwarded to the principal investigator with suggestions for revisions. The author must then submit the revised final report, abstract, and executive summary by the end date of the grant. The abstract, executive summary, and final report must be submitted in electronic format.

**Interim reports:** Grantees must submit quarterly financial reports, semi-annual progress reports, a final progress report, and, if applicable, an annual audit report in accordance with Office of Management and Budget Circular A-133. Grantees should anticipate that semi-annual progress reports will be required to follow the non-budgetary components of the Research Performance Progress Report template/format. Future awards and fund drawdowns may be withheld if reports are delinquent.

# Application Checklist

## Basic Scientific Research to Support Forensic Science for Criminal Justice Purposes

This application checklist has been created to assist in developing an application.

### What an Application Should Include:

- Application for Federal Assistance (SF-424) (see page 12)
- Program Narrative (see page 12)
- Appendices to the Program Narrative: (see page 13)
  - Bibliography/references
  - Any tools/instruments, questionnaires, tables/charts/graphs, or maps pertaining to the proposed study
  - Supporting Data – this should include any preliminary data to support the investigator’s ability to perform the work and/or proof of principle for the proposed research
  - Curriculum vitae, resumes or biographical sketches of key personnel
  - Project timeline and research calendar with expected milestones
  - Documentation of “new investigator” status, if applicable
  - Research independence and integrity
  - Human Subjects Protection Paperwork
  - Privacy Certificate
  - Other funding:
    - List of previous and current NIJ awards to applicant organization and investigator(s).
    - List of current and pending non-NIJ support for each investigator collaborating on this proposal.
    - List of other agencies, organizations, or funding sources to which this proposal has been submitted (if applicable).
    - Letters of cooperation/support or administrative agreements from organizations collaborating in the project, memoranda of understanding (MOUs), or letters of intent to establish MOUs (if applicable).
- Budget Detail Worksheet (see page 14)
- Budget Narrative (see page 14)
- Indirect Cost Rate Agreement (if applicable) (see page 15)
- Tribal Authorizing Resolution (if applicable) (see page 15)
- Program Narrative/Abstract Format: (see page 12)
  - Single-spaced
  - 12-point standard font
  - 1” standard margins
  - Narrative is 12 pages or less
  - Project/Program Design and Execution is at least 6 pages of the main body of the narrative
- Additional Attachments (see page 15)
  - List of Entities Involved in the Project
- Other Standard Forms as applicable (see page 15), including:
  - Disclosure of Lobbying Activities (if applicable)
  - Accounting System and Financial Capability Questionnaire (if applicable)