

# Evaluation of Pilot Programs for the Use of Presumptive Drug Detection Technology in Corrections and Community Corrections

## REQUEST FOR PROPOSAL

### Overview

**Mistral Security Incorporated (MSI)** is a provider of security products and services to government, military, law enforcement and justice agencies, education, and private companies within the United States and internationally related to individual as well as integrated security needs and requirements. Its office is in Bethesda Maryland.

Among the technologies offered by MSI are detection products involving presumptive drug and explosive detection as well as forensic products. One such product is an aerosol-based presumptive drug detection technology designed to be applied to surfaces to identify both noticeable drug substances and 'trace' amounts of drug substances not visible to the naked eye.

Through a Federally funded grant by the National Institute of Justice, MSI has applied this technology to schools to support their drug prevention efforts. This technology has the potential to serve as a valuable tool for corrections as an informational tool (providing feedback on what is happening in correctional settings without actually testing individuals) as well as an investigative tool (to answer such questions as what drugs are being brought into institutions, in what locations, at what frequency, in what manner, and who may be responsible).

**MSI** seeks applications to evaluate its aerosol-based presumptive drug detection technology as it is applied in a community corrections setting:

Proposals for this research should focus on a number of questions: In what manner can the drug detection system be best used? What is the impact of the technology? Does the technology provide an added value to existing drug detection technology? Can the technology be used in a cost/effective manner? Does the technology affect or change the presence of drugs in a community corrections setting or change drug use behavior of offenders? Applicants may propose additional relevant research questions which will help determine the efficacy of this product.

The remainder of this document provides additional information that will allow a service provider to understand the scope of the effort and develop a proposal in the format desired by **MSI**.

### **Deadline: Application**

The due date for applying for funding under this announcement is April 17, 2009, 5:00 p.m. eastern time.

### **Eligibility**

Proposals are sought from any organization experienced in the evaluation of federally funded research projects. Experience in the assessment of technology impacts within correctional settings to achieve policy objectives is particularly helpful.

### **Specific Information— Evaluation of Pilot Programs for the Use of Presumptive Drug Detection Technology in Corrections and Community Corrections**

Prison release programs have the difficult and complex task of supervising offenders in the community. Many offenders on community supervision have histories of drug use and/or drug trafficking and regardless of the crime they are serving their sentence for, may be at risk for these

type of behaviors. The nexus of crime and drug use is well documented and it is essential to the public safety mission that prison release programs have the technology to be able to detect when an offender has been exposed to drugs. The drug trace detection technology developed by Mistral Security, Inc. provides the capability to detect the presence of a number of drugs on a variety of surfaces or objects.

The major goal of this evaluation will be to determine whether this technology can be applied effectively in a community corrections setting. Generally, this evaluation will examine:

1. Whether this technology will increase success in identifying settings that have been exposed to drugs. The MSI technology will be used in conjunction with (not supplant) the use of other technologies.
2. If the use of this technology has a deterrent affect on offenders engaged in behavior which exposes them to contact with drugs (fewer positive findings)
3. If using this technology helps to decrease the overall cost of drug testing (i.e., less use of urine analysis); and
4. The overall cost/effectiveness ratio of using this product.

Mistral Security's aerosol technology detects residues on surfaces and objects. Trace detection is the process of applying reagents in aerosolized (or liquid) form to minute particles of drugs left on a surface by the touch of someone who has contaminated hands from touching a drug, or by placing drugs on the surface and leaving residue on that surface. This technology allows for the possibility to detect the presence of drugs even if the naked eye cannot see a substance. Packaged paper is used to swipe the surface to be examined and the technology is applied to the paper. If there are drugs present on the paper a chemical reaction will occur causing the paper to turn a specific color associated with the specific drug it is detecting.

This process can be used to determine if an offender has had contact with drugs by testing surfaces the offender has come into direct and recent contact with. It should be noted, however, that the technology measures exposure to drugs and not necessarily drug use.

The technology will be applied in a number of different scenarios common to community corrections agencies involved in the study, and data will be gathered and analyzed to determine if it has utility.

A number of community correction agencies and correction departments have indicated an interest in participating in this study. It is anticipated that approximately 4 to 6 agencies/departments will participate from locations in different states. The successful applicant will work with Mistral and the National Institute of Justice to identify participating agencies. Travel expenses in the applications should be generously estimated to account for multiple visits to a number of sites.

Mistral Security will provide each agency with the training and supplies necessary to implement the technology for evaluation. Evaluators will also be trained on the application of the technology. The technology comes in two forms: aerosols and liquid ampoules ('Pen Tests'). Each has a particular value and use that will have to be factored into the research. Participating agencies will have the discretion to use one or both forms of the technology and could be encouraged to test both types.

## **Evaluation Requirements**

### **Pre-Evaluation Assistance**

Proposal timelines must include a pre-evaluation period to include a meeting in Washington, D.C. with Mistral and NIJ to review the research design and to select participating agencies. The final research design is subject to NIJ approval. Also, the successful applicant should plan to hold a

collective meeting (most likely in the Washington DC area) with the institutions that will be involved. This pre-evaluation period is not expected to be longer than 30 days.

**Evaluation**

For purposes of planning, one should assume a 16-18 month evaluation period. This period may be decreased or increased if required and must be approved by NIJ. The evaluator will be given 60 days notice of any change in the research period. If a change should require a greater cost than submitted under this proposal, such cost must be approved by NIJ.

The evaluation will require on-site visits to the participant institutions the number, of which, should be included in the proposal (generously estimated since sites will not be selected until post-award). Quarterly progress reports will be required, as well as preliminary final reports.

**Protection of Human Subjects**

Successful applicants will be required to submit their proposals to an Institutional Review Board.

**Cost of proposed work:**

MSI anticipates that up to \$250,000 will be available for awards made through this solicitation. The award is subject to the availability of appropriated funds and to any modifications or additional requirements that may be imposed by law. Hourly rates cannot exceed \$450 per hour. All expenses are to be reimbursed upon the proper submission of invoices to MSI from the date of contract execution. All reimbursements are to be accompanied by receipts (copies are allowable) and statement of personnel hours.

**Examples of Possible Study Metrics**

The 'pre-evaluation' part of the proposal will be to design the specific evaluation metrics to be used in the study. This may involve different metrics or variation of metrics based on the different type of release programs.

Examples of possible metrics:

<b>Focus</b>	<b>Metrics</b>
Preparation	1. Time devoted to training 2. Training issues 3. Time to be comfortable with technology use

Technology Use	<ol style="list-style-type: none"> <li>1. Time per test</li> <li>2. Cost per test</li> <li>3. Number of correct and incorrect reading of results</li> <li>4. Number/% of positive findings</li> <li>5. Correlation of negative and positives with other types of tests used</li> <li>6. Effective integration with other testing tools and procedures</li> <li>7. Unintended consequences</li> </ol>
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## How To Apply:

Submit proposal by mail or email to MSI (contact information below) on or before April 17, 2009 by 5:00 EST.

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## What an Application Must Include:

### Program Narrative

The Program Narrative includes:

- a) Abstract (not to exceed 400 words).
- b) Table of contents.
- c) Main body, which includes:
  - i) Purpose, goals, and objectives.
  - ii) Review of relevant literature.
  - iii) Research design and methods.
  - iv) Implications for criminal justice policy and practice.
  - v) Management plan and organization.
  - vi) Dissemination strategy.

- d) Appendixes (not counted against program narrative page limit) include:
- i) Bibliography/References (if applicable).
  - ii) Data Archiving Strategy
  - iii) List of key personnel (required).
  - iv) Résumés of key personnel (required).
  - v) Letters of cooperation/support or administrative agreements from organizations collaborating in the project (if applicable).
  - vi) Chart for timeline, research calendar, or milestones (required).
  - vii) Other materials required by the solicitation.

All written materials are to be done in Microsoft Word (not earlier than 2003), in 12 point (one and a half line spacing) Aerial font. Deliverables include:

Status and progress reports no less than quarterly (Word file)

Draft final report 30 days after final month of data collection (Word file) and (3) printed copies

Final report 60 days after final month of data collection (Word file) and (5) printed copies

Database deliverable in Microsoft Excel format on CD media.

### **Budget Detail Worksheet**

### **Budget Narrative**

#### **Data Archiving Strategy:**

Each data set resulting from funded research will be submitted as a grant product or deliverable for archiving with the National Archive of Criminal Justice Data. (Data sets are to be submitted 90 days before the end of the project period.) Applications for research grants must include a brief (one- or two-page) data archiving strategy. For purposes of research replication and extension, the inclusion of only the final data set often prevents other researchers from replicating or extending the study because there is no original data, intermediate data, or documentation detailing how the data changed throughout the project. This data archiving strategy therefore must briefly describe the:

- Anticipated manipulations of original, intermediate, and final data sets (as applicable).
- Methods of documentation of such manipulations.
- Preparation of original, intermediate, and final data sets for archive submission.

The data archiving strategy should be submitted as an appendix to the application and will NOT count toward the 30-page limit. Please label this appendix “Data Archiving Strategy.”

#### **Page Limit:**

The program narrative section of your proposal must not exceed 30 double-spaced pages in 12-point font with 1-inch margins. Abstract, table of contents, charts, figures,

appendixes, and government forms do not count toward the 30-page limit for the narrative section.

## **Selection Criteria**

Successful applicants must demonstrate the following:

### **Understanding of the problem and its importance.**

1. Clarity of problem statement.
2. Awareness of relevant research.
3. Connection between proposed research and problem.
4. Knowledge of courts, jails, and systems relevant to release options.

### **Quality and technical merit.**

1. Awareness of the state of current research or technology.
2. Soundness of methodology and analytic and technical approach.
3. Feasibility of proposed project and awareness of pitfalls.
4. Innovation and creativity (when appropriate).

### **Impact of the proposed project.**

1. Potential for significant advances in scientific or technical understanding of the problem.
2. Potential for significant advances in the field.
3. Relevance for improving the policy and practice of criminal justice and related agencies and improving public safety, security, and quality of life.
4. Affordability and cost-effectiveness of proposed end products, when applicable (e.g., purchase price and maintenance costs for a new technology or cost of training to use the technology).
5. Perceived potential for commercialization and/or implementation of a new technology (when applicable).

### **Capabilities, demonstrated productivity, and experience of applicants.**

1. Qualifications and experience of proposed staff.
2. Demonstrated ability of proposed staff and organization to manage the effort.
3. Adequacy of the plan to manage the project, including how various tasks are subdivided and resources are used.
4. Successful past performance on NIJ grants and contracts (when applicable).

**Budget.**

1. Total cost of the project relative to the perceived benefit.
2. Appropriateness of the budget relative to the level of effort.
3. Use of existing resources to conserve costs.

**Dissemination Strategy.**

1. Well-defined plan for the grant recipient to disseminate results to appropriate audiences, including researchers, practitioners, and policymakers.
2. Suggestions for print and electronic products NIJ might develop for practitioners and policymakers.