

FY13 DNA Backlog Reduction Program Abstracts

This table is a summary of DNA Backlog Reduction Awards issued in FY2013. Following this table are their respective abstracts.

| State | FY13 Recipient Name | Award Amount |
|-------|--|--------------|
| AK | Alaska Department of Public Safety | \$308,986 |
| AL | Alabama Department of Forensic Sciences | \$1,242,058 |
| AR | Arkansas State Crime Laboratory | \$884,866 |
| AZ | Arizona Department of Public Safety | \$761,784 |
| AZ | City of Mesa | \$116,289 |
| AZ | Phoenix Police Department | \$526,814 |
| AZ | City of Tucson | \$199,799 |
| CA | California Department of Justice | \$2,399,002 |
| CA | City And County of San Francisco | \$345,264 |
| CA | City of Glendale | \$100,000 |
| CA | City of Los Angeles | \$1,287,833 |
| CA | City of Oakland | \$427,368 |
| CA | City of San Diego | \$326,023 |
| CA | Contra Costa County | \$238,549 |
| CA | Alameda County | \$265,533 |
| CA | County of Kern | \$285,707 |
| CA | County of San Bernardino | \$501,412 |
| CA | County of San Mateo | \$173,082 |
| CA | County of Santa Clara | \$293,224 |
| CA | County of Ventura | \$109,541 |
| CA | Fresno County Sheriff Department | \$372,826 |
| CA | Los Angeles County Sheriff's Department | \$800,000 |
| CA | Orange County Sheriff Coroner Department | \$418,184 |
| CA | Sacramento County District Attorney | \$480,632 |
| CA | San Diego County | \$379,379 |
| CO | City And County of Denver | \$219,070 |
| CO | City of Colorado Springs | \$110,157 |
| CO | Colorado Bureau of Investigation | \$688,818 |
| CT | Department of Emergency Services and Public Protection | \$627,120 |
| DC | Metropolitan Police Department | \$438,971 |
| DE | Delaware Health and Social Services | \$342,324 |
| FL | Broward Sheriff's Office | \$516,999 |
| FL | Florida Department of Law Enforcement | \$3,404,403 |
| FL | Miami-Dade County | \$1,082,739 |
| FL | Palm Beach County Sheriff's Office | \$389,345 |
| FL | Pinellas County | \$333,061 |

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|----|---|-------------|
| FL | St. Lucie County Sheriff's Office | \$125,913 |
| GA | Georgia Bureau of Investigation | \$2,164,659 |
| HI | City and County of Honolulu | \$283,342 |
| IA | Iowa Department of Public Safety | \$512,429 |
| ID | Idaho State Police | \$250,000 |
| IL | DuPage County Office of The Sheriff | \$296,770 |
| IL | Illinois State Police | \$2,720,939 |
| IL | Northeastern Illinois Regional Crime Laboratory | \$296,770 |
| IN | Indiana State Police | \$816,712 |
| IN | Indianapolis-Marion County Forensic Services Agency | \$511,142 |
| KS | Johnson County | \$350,460 |
| KS | Kansas Bureau of Investigation | \$148,978 |
| KS | Sedgwick County Regional Forensic Science Center | \$100,000 |
| KY | Commonwealth of Kentucky | \$664,878 |
| LA | Louisiana State Police | \$1,551,210 |
| MA | City of Boston | \$311,809 |
| MA | Massachusetts State Police | \$1,405,618 |
| MD | Anne Arundel County, MD | \$158,065 |
| MD | Baltimore County | \$253,347 |
| MD | City of Baltimore | \$523,748 |
| MD | Maryland State Police | \$407,306 |
| MD | Montgomery County | \$100,000 |
| MD | Prince George's County | \$305,411 |
| ME | Maine State Police | \$250,000 |
| MI | State of Michigan | \$2,648,903 |
| MN | Hennepin County | \$100,000 |
| MN | Minnesota Department of Public Safety | \$648,725 |
| MO | Missouri Board of Police Commissioners | \$412,761 |
| MO | Missouri State Highway Patrol | \$618,453 |
| MO | St. Charles County | \$85,000 |
| MO | St. Louis County | \$177,757 |
| MO | St. Louis Metropolitan Police Department | \$344,868 |
| MS | Mississippi Department of Public Safety | \$524,838 |
| MT | Montana Department of Justice | \$250,000 |
| NC | City of Charlotte | \$289,371 |
| NC | North Carolina Department of Justice | \$1,756,277 |
| ND | North Dakota | \$250,000 |
| NE | Nebraska State Patrol | \$325,649 |
| NH | New Hampshire Department of Safety | \$250,000 |
| NJ | New Jersey Department of Law and Public Safety | \$1,203,256 |
| NJ | Union County | \$92,700 |

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|----|---|-------------|
| NM | New Mexico Department of Public Safety | \$748,252 |
| NV | Las Vegas Metropolitan Police Department | \$604,591 |
| NV | Washoe County | \$350,000 |
| NY | City of New York, Office of Chief Medical Examiner | \$1,300,000 |
| NY | County of Erie | \$695,031 |
| NY | County of Suffolk | \$296,243 |
| NY | County of Westchester | \$341,819 |
| NY | Monroe County | \$366,885 |
| NY | Nassau County | \$339,540 |
| NY | New York State Police | \$1,050,000 |
| NY | Onondaga County | \$239,273 |
| OH | City of Columbus | \$291,603 |
| OH | City of Mansfield | \$110,805 |
| OH | Cuyahoga County | \$300,000 |
| OH | Hamilton County | \$205,637 |
| OH | Lake County | \$50,000 |
| OH | Montgomery County | \$262,249 |
| OH | Ohio Attorney General | \$926,413 |
| OK | City of Oklahoma City | \$185,000 |
| OK | City Of Tulsa | \$272,347 |
| OK | Oklahoma State Bureau of Investigation | \$611,521 |
| OR | Oregon State Police | \$616,425 |
| PA | Allegheny County Pennsylvania | \$294,049 |
| PA | City of Philadelphia | \$1,069,271 |
| PA | Pennsylvania State Police | \$1,359,857 |
| PR | Instituto de Ciencias Forenses | \$672,611 |
| RI | Rhode Island Department of Public Safety | \$250,000 |
| SC | Beaufort County Council | \$100,000 |
| SC | County of Greenville | \$215,000 |
| SC | Richland County Government | \$151,400 |
| SC | South Carolina Law Enforcement Division | \$1,159,816 |
| SD | South Dakota Office of The Attorney General | \$250,000 |
| TN | Tennessee Bureau of Investigations | \$2,351,154 |
| TX | City of Austin | \$204,867 |
| TX | City of Fort Worth | \$169,979 |
| TX | City of Houston | \$1,233,415 |
| TX | Bexar County | \$107,560 |
| TX | Dallas County | \$698,382 |
| TX | Harris County | \$471,702 |
| TX | State of Texas | \$2,842,596 |
| TX | University of North Texas Health Science Center At Fort Worth | \$518,302 |

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|-----------------------|---|---------------------|
| UT | Utah Department of Public Safety | \$374,634 |
| VA | Virginia Department of Forensic Science | \$990,871 |
| VT | Vermont Department of Public Safety | \$226,013 |
| WA | Washington State Patrol | \$1,238,926 |
| WI | Wisconsin Department of Justice | \$849,590 |
| WV | West Virginia State Police | \$396,320 |
| WY | Wyoming Office of the Attorney General | \$250,000 |
| FUNDING TOTAL: | | \$74,495,175 |

FY13 Recipient Name: Alaska Department of Public Safety

Award Number: 2013-DN-BX-0125

Award Amount: \$308,986

Abstract: The Alaska Scientific Crime Detection Laboratory (AKSCDL), a division of the Alaska Department of Public Safety (DPS), is the agency that is responsible for analyzing evidentiary material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state of Alaska. All forensic biology/DNA work is performed in the main laboratory in Anchorage. Pursuant to AS 44.41.035, the DPS-AKSCDL is the agency responsible for conducting analysis on DNA samples collected from convicted felony and misdemeanor offenders, as well as certain felony misdemeanor arrestees in the state of Alaska; the AKSCDL is responsible for storing and maintaining the resultant profiles in the State DNA Index System.

As the only forensic laboratory providing DNA analysis in the State of Alaska, the Alaska Scientific Crime Detection laboratory (AKSCDL) is frequently the rate-limiting step in the criminal justice system for processing sexual assault cases. Alaska has the unfortunate distinction of having the highest forcible rape rate of any state, at 2.5 times the national average, which places a higher than average burden on the AKSCDL, with approximately 13% of its total caseload related to sexual assault. The AKSCDL also receives a higher than average number of sexual assault cases that are not positive for the presence of seminal fluid. With the high volume of sexual assaults, and the complex nature of the analysis, the forensic biology unit is significantly more expensive to operate than other laboratory disciplines. The Federal funding from this award will help to alleviate this burden by providing overtime and supplies for processing these cases. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Maintain the capacity and capabilities of the AKSCDL biological screening/DNA unit.
3. Maintain compliance with FBI Quality Assurance Standards for equipment calibrations.
4. Provide required continuing education for DNA analysts in the lab.

The AKSCDL expects to analyze at least 279 forensic biology and DNA cases with overtime and supplies. The lab also expects to reduce the turnaround, seeking ultimately to achieve a turnaround of less than 90 days.

[Return to Page 1](#)

FY13 Recipient Name: Alabama Department of Forensic Sciences

Award Number: 2013-DN-BX-0107

Award Amount: \$1,242,058

Abstract: The State of Alabama – and Alabama Department of Forensic Sciences (ADFS), specifically – continues to face serious budgetary constraints, already having experienced a 43% reduction in State-level funding for forensic services over the last 5 years. ADFS is also beginning to see the reality of increased database sample submissions arising from the implementation of an all felony arrestee DNA testing statute, which was implemented on September 30, 2010.

The federal funding from this award will greatly offset these serious shortfalls, and will be used to realize the following goals:

1. Reduce the forensic DNA case backlog through analyst overtime and the purchase of Biology supplies.
2. Reduce the DNA database sample backlog through analyst overtime and the purchase of database supplies.
3. Increase the capacity of the statewide DNA laboratory system by purchasing one (1) high-throughput ABI 3500 capillary electrophoresis instrument, which will further streamline the DNA casework testing process, as will additional equipment purchases (e.g., bone grinders, microcentrifuges, microscopes, computer equipment,) which will be directly inserted into the Biology screening and DNA analysis process throughout Alabama. Specialized GeneMapperIDX software will also be purchased to allow for the data collection and analysis of forensic DNA profiles obtained from the high-throughput ABI 3500 capillary electrophoresis instrument.
4. Purchase 16,500 DNA Database collection kits that will be distributed to law enforcement throughout Alabama for the specific collection of offender/arrestee DNA samples in compliance with Alabama's DNA Database law.

The ADFS expects to reduce the statewide DNA case backlog by at least 650 cases by the end of the award period. The ADFS DNA Database laboratory also expects to process at least 4,400 DNA database samples (which includes 400 QC samples) using Federal funding. The statewide turnaround time on Biology casework is expected to be reduced by an additional 20 days, with the analyst throughput in the casework sections expected to increase a minimum of 7%.

[Return to Page 1](#)

FY13 Recipient Name: Arkansas State Crime Laboratory

Award Number: 2013-DN-BX-0096

Award Amount: \$884,866

Abstract: The Arkansas State Crime Laboratory Forensic Serology and DNA Sections analyze evidence submitted by law enforcement agencies for the state of Arkansas. These two sections complement one another in the screening and DNA analysis of biological evidence. The Arkansas State Crime Laboratory is proposing to utilize the FY 2013 DNA Backlog Reduction Program to purchase the necessary equipment to increase the capacity to extract and prepare samples for quantification and amplification, to purchase software for familial and mixture interpretation, and to continue to fund the 6 Forensic Serologists and 4 Forensic DNA Analysts

that were originally funded from the FY2012 Backlog Reduction Program. The goals of this program are to—

1. Improve the capability and capacity of the Forensic DNA Section.
2. Maintain the DNA and CODIS section.
3. Decrease the backlog in the DNA Sections.

[Return to Page 1](#)

FY13 Recipient Name: Arizona Department of Public Safety (AZ)

Award Number: 2013-DN-BX-0095

Award Amount: \$761,784

Abstract: The Arizona Department of Public Safety (AZ DPS) Crime Laboratory System provides complete DNA profiling services from three of its Regional Crime Laboratories: the Central Regional Crime Laboratory, Phoenix; the Southern Regional Crime Laboratory, Tucson; and the Northern Regional Crime Laboratory, Flagstaff. These DNA services include STR analysis of autosomal nuclear DNA, Y-STR analysis of the Y chromosome, and mitochondrial DNA analysis of evidence submitted by 295 law enforcement and prosecutorial agencies statewide, including municipal police departments, county sheriffs, and state law enforcement. Also, the AZ DPS Crime Laboratory, by statute, maintains the DNA Database for the State of Arizona and has been processing convicted offender DNA samples since 1993 and DNA arrestee samples for those arrested for certain violent crimes beginning in 2008.

The AZ DPS Crime Laboratory System for four of the last five years has faced severe budget reductions due to the dire economic conditions in the State of Arizona. As a result, the AZ DPS Crime Laboratory DNA programs had been reduced as follows:

- The DNA Arrestee Database Program had a 100% elimination of funds – a loss of \$980,000 per year.
- The DNA convicted offender database program had a 49% reduction in funds – a loss of \$1.8 million per year.
- The DNA casework program received a 12% reduction in funds – a loss of \$600,000 per year.
- A hiring freeze had resulted in a 24% vacancy factor, with 15 DNA positions vacant.
- DNA equipment funds for replacement or new equipment were eliminated.

In the current Arizona fiscal year, 2013, with the improving Arizona economy, partial funding has been restored but it will take time for the AZ DPS Crime Laboratory DNA Programs to recover. Some hiring has been underway with State funds and with a previous NIJ Grant. Five of the previously held positions have just been filled in the third quarter (January – March) of the State fiscal year 2013, and it is anticipated more will be filled in the upcoming State fiscal year, 2014. Therefore, the Federal funding from this Grant request would be utilized to focus on new, more efficient DNA analysis software and equipment, replacing old instruments – either antiquated and outdated or broken and inoperable. This award will be used for the following:

1. Increase and maintain the capacity of the three AZ DPS Regional Crime Laboratories performing forensic biology/DNA casework analysis.
2. Increase and maintain the capacity of the AZ DPS Database Laboratory.

[Return to Page 1](#)

FY13 Recipient Name: City of Mesa (AZ)

Award Number: 2013-DN-BX-0050

Award Amount: \$116,289

Abstract: Mesa Police Department Forensic Services is located at 133 N. Morris, Mesa, Arizona. Forensic Services is responsible for the collection and examination of evidence from all types of crimes committed within this community of over 439,000 residents, which is the 38th largest city in the United States. Forensic Services is composed of ten units. The Toxicology, Firearms, Biology, Controlled Substances, Crime Scene, Evidence Processing, Latent Print and Quality Assurance Units are accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board (ASCLD/LAB - Certificate #231).

The Mesa Police Department Forensic Services Biology Unit, consisting of 7 employees, is responsible for processing biological evidence from homicides, sexual assaults, burglaries and numerous other crimes. During 2012, members of the unit processed over 1,400 samples and prepared over 1,200 reports regarding their scientific analyses. The laboratory is a National DNA Index System (NDIS) participant. The Mesa Police Department Forensic Services Biology Unit participates in external audits, not less than once every two years, to demonstrate compliance with the requirements of the Quality Assurance Standards established by the Director of the Federal Bureau of Investigation. The most recent external audits were performed August 29, 2011; May 3–May 6, 2010; and October 19–October 20, 2009.

Current turnaround time from receipt of the DNA analysis request to report generation is 41 days for persons crimes and 174 days for property crimes. The overall average is 153 days. The average number of DNA samples analyzed per analyst/month is 75. The number of Forensic DNA cases in the MPD backlog as of April 1, 2013, is 231. The laboratory intends to increase capacity using existing personnel. Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Increase the capacity of the Mesa Police Department Forensic Services Biology Unit.

It is estimated that a minimum of 7 forensic DNA cases can be analyzed within the 18-month award project period using the Federal funding requested under this FY2013 program. The laboratory expects to reduce the average turnaround time and backlog by 10%. The average turnaround time would be reduced to approximately 138 days and the backlog would be reduced to approximately 208 cases.

[Return to Page 1](#)

FY13 Recipient Name: Phoenix Police Department (AZ)

Award Number: 2013-DN-BX-0098

Award Amount: \$526,814

Abstract: The Phoenix Police Department Laboratory Services Bureau (PPD-LSB) is responsible for analyzing evidential material associated with criminal investigations within the city limits of Phoenix, Arizona. The Unit has recently trained additional Forensic Biology staff in DNA analysis and therefore has been able to significantly increase throughput over the past year. However, due to the continual increase in case submissions, it is difficult to sufficiently address

both the increase in case submissions as well as the backlog. As with most governmental entities, the PPD-LSB is facing budgetary constraints, but continues to focus on addressing the challenges associated with a backlog of DNA cases awaiting analysis. By processing cases through the use of outsourcing and overtime, the backlog will experience a 10% reduction in the backlog. The Federal funding from this award will be used for the following goals:

1. Decrease the DNA case backlog.
2. Increase DNA capacity.
3. Provide required continuing education to analysts.

The unit expects to reduce the backlog by at least 400 DNA cases and 300 Biology cases. In addition, the turnaround times are expected to decrease from 664 to 575 days for non-priority cases, which would reduce the overall average turnaround by 10%.

[Return to Page 1](#)

FY13 Recipient Name: City of Tucson (AZ)

Award Number: 2013-DN-BX-0119

Award Amount: \$199,799

Abstract: The Tucson Police Department Crime Laboratory (TPDCL), a unit of the Tucson Police Department, is responsible for the analysis of evidential material associated with criminal investigations for the City of Tucson, to include the analysis of biological evidence for DNA. The Tucson Police Department Crime Laboratory and the City of Tucson continue to face budgetary constraints, particularly in the area of staffing. There has been no increase in the number of permanent staff members in the DNA unit or the Crime Laboratory for several years. The backlog of DNA cases waiting for analysis continues to increase and the turnaround time remains above acceptable levels. One way to positively affect the backlog and turnaround time is to increase the number of staff members in this area. Funding from this grant will be used as follows:

1. Continue grant funding for a DNA Screener (CSS) position for an additional 18 months.
2. Fund a full-time DNA Criminalist position for 18 months.
3. Purchase a laptop for the full-time grant-funded DNA Criminalist.

It is anticipated that the grant-funded DNA Screener will "screen" approximately 360 cases for potential DNA evidence during the 18-month grant cycle (October 1, 2013 through March 31, 2015). This position provides much needed support to the DNA analysts, enabling them to focus their time on the actual analysis process and data interpretation. After completion of approximately 1 year of training, it is estimated that the DNA Criminalist will analyze a minimum of 25 cases during the final 6 months of the grant. The cases screened by the DNA Screener will be different cases than the cases analyzed by the DNA Criminalist to avoid double-counting cases. The laptop will be purchased for the DNA Criminalist for training, note taking, LIMS, and other job-related uses.

[Return to Page 1](#)

FY13 Recipient Name: California Department of Justice

Award Number: 2013-DN-BX-0074

Award Amount: \$2,399,002

Abstract: The California Department of Justice (CADOJ) Bureau of Forensic Services (BFS) seeks funding of \$2,399,002 for casework backlog reduction. All work is to be accomplished in the 18-month period of the award sought. This funding includes \$564,403 to provide for the purchase of needed DataBank equipment and conferences/training for DataBank analysts. Our goals for this grant are to:

- Reduce the existing DNA casework backlog.
- Reduce the overall turnaround time for handling, screening, analyzing and reviewing forensic DNA samples.
- Increase the capacity and efficiency of our DNA programs and facilities.
- Improve the quality of the interpretation of complex DNA mixtures.
- Maintain the performance of the CADOJ BFS DataBank.

The CADOJ BFS proposes to achieve these goals by:

- Funding overtime for casework analysis.
- Hiring three grant-funded, limited-term analysts.
- Providing training for casework and DataBank analysts.
- Purchasing equipment for casework and DataBank analysis.
- Renovating existing Biology/DNA program facilities.
- Purchasing state-of-the-art mixture interpretation systems.

[Return to Page 1](#)

FY13 Recipient Name: City and County of San Francisco (CA)

Award Number: 2013-DN-BX-0053

Award Amount: \$345,264

Abstract: The San Francisco Police Department Criminalistics Laboratory (SFPD Crime Lab) is the agency that is responsible for analyzing evidential material associated with criminal investigations for the local law enforcement agencies. The SFPD has one crime lab that primarily services the City and County of San Francisco Police Departments, as well as the Sheriff's Department and other local law enforcement agencies operating within the City and County of San Francisco. The SFPD is facing budgetary constraints related to its operational budget for equipment purchases, laboratory instruments and training. The Federal funding from this award will be used for the following goals:

1. Reduce the forensic biology/DNA case backlog by streamlining processes using Lean Six Sigma, validation of the Tecan robot, and funding overtime.
2. Provide the continuing education required for each DNA analyst.

The SFPD Crime Lab can expect to reduce the DNA backlog by standardizing systems, increasing efficiency and optimizing the case turnaround time. By the end of this award period, the turnaround time is expected to be reduced to 50 days or less.

[Return to Page 1](#)

FY13 Recipient Name: City of Glendale (CA)

Award Number: 2013-DN-BX-0054

Award Amount: \$100,000

Abstract: In 2012, the Glendale Police Department (GPD) established a regional DNA testing laboratory to serve the Tri-Cities region of Los Angeles County, which includes the communities of Burbank, Glendale and Pasadena. Housed within the Glendale Police Department facility, the DNA testing laboratory was consolidated with existing forensic services (crime scene investigation, fingerprints, computer forensics, NIBIN) to form the Verdugo Regional Crime Laboratory (VRCL). Funding for equipment, supplies and staffing for the DNA laboratory has been financed through a combination of federal grant funding, asset forfeiture funds and the City of Glendale.

In 2011, the Tri-Cities region – with a population of approximately 440,000 – reported a combined total number of 884 UCR Part 1 Violent crimes and a total of 10,563 UCR Part 1 crimes. Fraud/identity theft and property crimes remain the largest proportion of crimes within the Tri-Cities region. Property crimes compose over 90% of UCR Type 1 crimes, while financial crimes have been the most difficult of UCR Type II crimes to investigate. The Verdugo Regional Crime Laboratory was founded mainly to address the demand for DNA testing of evidence recovered from property and financial crimes. The Forensic Biology Unit of the Verdugo Regional Crime Laboratory is staffed with two DNA specialists and one DNA Technical Leader/Supervisor. With this limited staffing, the implementation of automated instrumentation is critical to the efficient throughput of DNA casework. The Verdugo Regional Crime Laboratory, accredited in May 2013, has assumed forensic DNA testing of all GPD cases and is now accepting cases from the Burbank and Pasadena Police Departments. The Forensic Biology Unit has already experienced a bottleneck in the extraction process due to the limited number of samples that can be extracted at one time. In addition, the amount of time necessary to manually process samples for DNA quantitation, normalization, and amplification set-up increases the overall turnaround time for DNA casework. While a DNA case backlog does not currently exist for the laboratory, one can be anticipated now that the laboratory has granted access to the Tri-Cities agencies without the appropriate automation tools in place. Funding from this award will allow the laboratory address the influx of DNA casework from Tri-Cities agencies by incorporating automation tools designed to streamline DNA analysis procedures. This award will be specifically used to meet the goal of increased sample capacity resulting in more cases completed per analyst with shorter case turnaround times. Funds will be used as follows:

- **Automation Instrumentation:** The Verdugo Regional Crime Laboratory is requesting grant funds to purchase two pieces of automation instrumentation: 1) an extraction robot and 2) a liquid handling robot. The addition of a second extraction robot to the laboratory will have an immediate effect on increased sample processing and throughput of DNA cases. The liquid handling robot will be used to process pre-PCR samples for DNA quantitation set-up, DNA normalization and PCR reaction set-up. Incorporating these instruments will allow the laboratory to streamline aspects of DNA analysis procedures that are labor and time intensive. Automation of these procedures through robotics will increase analyst productivity and minimize human error caused by repetitive manual processing.
- **Basic Infrastructure Support:** The Verdugo Regional Crime Laboratory is requesting grant funds to purchase two benches to support expanded robotic capabilities. Mobile work benches are a cost-effective means to expand work space without requiring construction.

[Return to Page 1](#)

FY13 Recipient Name: City of Los Angeles (CA)

Award Number: 2013-DN-BX-0070

Award Amount: \$1,287,833

Abstract: The Los Angeles Police Department (LAPD), Scientific Investigation Division (SID) is the division that is responsible for analyzing evidential material associated with criminal investigations for the City of Los Angeles. The LAPD-SID maintains two laboratories – one located at the Hertzberg Davis Forensic Science Center (HDFSC) and the other at Piper Technical Center (PTC). The HDFSC laboratory is responsible for conducting DNA analysis on DNA samples collected from all convicted felony and misdemeanor offenders in the city of Los Angeles, as well as conducting screening of evidence for forensic value. The PTC laboratory also conducts screening of evidence and is under development as a DNA analysis laboratory.

The city of Los Angeles has been facing serious budget shortfalls while still seeking to expand its DNA analysis capabilities. The federal funding from this award will allow the Los Angeles Police Department Serology/DNA Unit (LAPD SDU) to reduce its backlog and increase its laboratory capacity to meet existing and future demand for Deoxyribonucleic Acid (DNA) screening and testing. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Increase and maintain the capacity and capabilities of the LAPD SDU casework laboratories.
3. Maintain continuing education for analysts in the lab.

The LAPD SDU expects to analyze at least 1,135 forensic biology and DNA cases (1,009 with overtime and supplies and 126 by outsourcing). Independent of this or any grant, the City continues to hire additional criminalists in support of DNA testing. Once these newly hired Criminalists are trained, they can perform evidence screening that will improve efficiency and reduce turnaround time. Those Criminalists who are already trained to perform DNA typing will be able to increase the number of samples that they analyze, further reducing turnaround time. The lab expects to reduce the turnaround time for a forensic backlog case by 10% and increase analyst productivity by an average of 5%. Utilizing funds from this grant will allow criminalists to meet continuing education requirements and/or receive training, helping the laboratory to meet accreditation requirements.

[Return to Page 1](#)

FY13 Recipient Name: City of Oakland (CA)

Award Number: 2013-DN-BX-0123

Award Amount: \$427,368

Abstract: The Oakland Police Department Criminalistics Laboratory (OPD Laboratory) is the agency responsible for analyzing evidential material associated with criminal investigations for the City of Oakland, California.

The OPD Laboratory is facing budgetary constraints. This has placed a burden on the Forensic Biology Unit, which lost two Criminalists in 2012, resulting in a decrease in Unit productivity. The Federal funding from this award will help to alleviate this burden as well as assist in funding

Criminalists overtime and supplies to analyze forensic casework. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Increase and maintain the capacity and capabilities of the OPD Laboratory Forensic Biology Unit.
3. Retain Biology Unit staff by continuing to fund salaries and benefits of 1 FTE Criminalist and 1 FTE Forensic DNA Technician.
4. Maintain continuing education for the Criminalists and the Forensic Technician in the lab.

The OPD Laboratory expects to analyze at least 160 forensic biology and DNA cases (100 with overtime and supplies and 60 with an additional analyst). The lab also expects to reduce the turnaround to less than 100 days and increase the productivity of each Criminalist to 50 samples per month.

[Return to Page 1](#)

FY13 Recipient Name: City of San Diego (CA)

Award Number: 2013-DN-BX-0078

Award Amount: \$326,023

Abstract: The demand for DNA typing services in the City of San Diego continues to increase steadily. Homicide and sex crime submissions remain steady; however, there continues to be an increase in submission of lesser felonies and property crimes. It is our goal to utilize these grant funds to continue to increase the efficiency of casework output in our DNA laboratory, and to provide the funding to allow additional cases to be worked on overtime. The combination of these two things should result in a decrease in backlogged cases. We seek \$326,023 in grant funds in an attempt to achieve some important specific results:

1. Reduce the average turnaround time on DNA cases from 87 days to 70 days.
2. Increase the average number of samples analyzed per analyst per month from 36 samples (currently) to 40 samples per month.
3. Reduce the backlog (cases over 30 days) by approximately 10% from 258 to 232, in part by completing 103 cases in-house using grant-funded overtime.
4. Provide mandated training to all analysts in the DNA laboratory.
5. Purchase equipment that will increase casework efficiency.
6. Provide new suitable workspace for additional personnel that address contamination concerns given the critical nature of the testing performed in the section.

[Return to Page 1](#)

FY13 Recipient Name: Contra Costa County (CA)

Award Number: 2013-DN-BX-0056

Award Amount: \$238,549

Abstract: The Contra Costa County Office of the Sheriff, Forensic Services Division is the agency responsible for analyzing evidential material associated with criminal investigations for twenty-five routine law enforcement clients and other governmental agencies in Contra Costa

County, CA. The population served by the Forensics Services Division exceeds one million. The Forensic Service Division includes the Forensic Biology Unit, which is a full-service DNA unit within the laboratory.

The DNA Unit has been working to increase capacity with the addition of new equipment and automation. In addition, the DNA Unit has been working to embrace a case flow efficiency model, based on a "Pod or Team" approach. This model was developed from the published reports of past NIJ Forensic DNA Unit Efficiency Improvement grant recipients and the Oakland Police Department Crime Laboratory. The objective of the NIJ program was to publish successful and carefully evaluated novel efficiency improvement methodologies intended to serve as models for forensic science laboratories. The "Pod or Team"-based approach has demonstrated great success improving case flow efficiency, hence increasing sample throughput and reducing turnaround time. The Oakland PD model uses a technician for sample processing, which greatly improved their efficiency. The Federal funding from this award will be used for the following goal:

1. Hire two employees with grant funds to work as technicians, to assist the analysts and facilitate the processing of forensic biology/DNA casework.

[Return to Page 1](#)

FY13 Recipient Name: Alameda County (CA)

Award Number: 2013-DN-BX-0049

Award Amount: \$265,533

Abstract: The Alameda County Sheriff's Office (ACSO) Crime Laboratory is responsible for processing all evidence submitted to the laboratory associated with criminal investigations from local law enforcement agencies throughout Alameda County excluding the City of Oakland. In order to continue meeting the needs of our user agencies in providing DNA analysis in a timely manner, grant funds from this award will be used to continue funding two positions (Criminalist and DNA Technical Lead) in the DNA Unit and pay for annual maintenance contracts for DNA instrumentation. These two positions have been funded through NIJ/DNA grant funds since 2008, and without these grant funds, the positions would not exist. The funding from this award will be used for the following goals:

1. Maintain case throughput.
2. Reduce case backlog.
3. Reduce case turnaround time to 100 days or less.
4. Maintain DNA instrumentation.

The DNA Unit expects to maintain monthly case productivity as well as reduce the case backlog. The DNA Unit expects to reduce turnaround time to 100 days or less. The funded Criminalist will be responsible for conducting DNA casework and performing technical reviews of casework. The DNA Technical Lead will be responsible for the technical aspects of the DNA Unit as well as oversight of day-to-day quality assurance and accreditation compliance activities. The DNA Technical Lead will perform technical and administrative reviews of casework, conduct and review validations, as necessary, and provide training to staff.

[Return to Page 1](#)

FY13 Recipient Name: County of Kern (CA)

Award Number: 2013-DN-BX-0086

Award Amount: \$285,707

Abstract: The Kern Regional Crime Laboratory has demonstrated improvements in turnaround time and backlog reduction over the last several years with the infusion of funds provided by the DNA capacity and backlog grants. DNA grant funds have provided for the hiring and training of two new DNA analysts, improved the DNA Section's automation with the purchase of instrumentation and equipment (such as the 3130 Genetic Analyzer and robotic liquid handling instruments), and provided training funds for the required continuing education of staff. To date, the County has supported the sustainability of these efforts by supporting salary and benefits of the additional personnel, and providing additional revenue to maintain and run the instrumentation mentioned above. Due to the economic downturn and current County budgetary constraints, however, the laboratory is now faced with the layoff of two of our new Criminalists.

Due to the difficulty in recruiting DNA scientists and the mandatory Civil Service rules regarding layoffs, our DNA Criminalists are the most vulnerable for elimination. Moreover, because the two most recent hires in DNA are the only individuals with graduate degrees, the proposed layoffs directly affect the laboratory's ability to train individuals to take over the responsibilities of the DNA Technical Lead Criminalist. Therefore, loss of staff within the unit would not only jeopardize the level of qualified personnel who are available to perform casework – it jeopardizes the future of the unit itself.

Proposed goals and objectives: The goal of this project is to reduce backlog by continuing to increase capacity and improve turnaround time through the retention of two ready-trained analysts. In addition to this, some funding will contribute to the DNA Analysis Unit's efforts to integrate its instrumentation with its Laboratory Information Management System (LIMS) in order to realize increased efficiencies in sample processing.

Summary of the implementation plan: With funding provided by the 2013 DNA Backlog Reduction Program grant, the Kern Regional Crime Laboratory will have the resources to retain two qualified and experienced DNA scientists, and to allow its robotic platforms to communicate with the LIMS in order to automate the capture of data to electronic case files.

Expected results: The laboratory expects continued improvements in throughput and turnaround time, and a reduction in the backlog of DNA casework. As the County more effectively uses DNA evidence in investigations and prosecutions, the work the laboratory is expected to do continues to increase. We have made great strides in recent years, and we will not experience setbacks to our objectives with this anticipated assistance in retaining staff and increasing automation.

[Return to Page 1](#)

FY13 Recipient Name: County of San Bernardino (CA)

Award Number: 2013-DN-BX-0068

Award Amount: \$501,412

Abstract: The San Bernardino County Sheriff's Department, Scientific Investigations Division (Crime Laboratory) is part of a unit of local government. We are responsible for analyzing

evidential material associated with criminal investigations for local law enforcement agencies within the counties of San Bernardino and Riverside. The overall goals of the San Bernardino County Sheriff's Department Crime Laboratory are to increase the throughput of our DNA laboratory, reduce DNA casework backlog and reduce DNA case turnaround time. Our objectives will be to fund overtime and supplies to complete backlogged DNA cases, fund necessary training of analysts, fund equipment to replace outdated servers and purchase a second robot to assist with sample prep, fund a method validation and fund the replacement of aging equipment and servers within the lab whose repairs slows down case works. Our Crime Laboratory has experienced an increase in staff that has created limited space for expansion. The projected plans will incorporate the most prudent and efficient use of overtime, supplies, training and other funded categories, which will allow us to reach our goals. The Federal funding from this award will assist in giving analysts more time and supplies to work forensic casework. SBCSD-SID expects to analyze at least 99 forensic biology and DNA cases with the assistance of these funds. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Increase and maintain the capacity and capabilities of the laboratory.
3. Maintain continuing education for all Criminalists in the DNA unit.

[Return to Page 1](#)

FY13 Recipient Name: County of San Mateo (CA)

Award Number: 2013-DN-BX-0104

Award Amount: \$173,082

Abstract: The County of San Mateo is located in Northern California. It is positioned just south, and adjacent to, the City of San Francisco. It has a population over 730,000 and is comprised of 450 square miles, 25% of which is urban space. Forensic Services for the County are provided by the San Mateo County Sheriff's Office. The San Mateo County Sheriff's Office Forensic Laboratory services approximately thirty law enforcement and law enforcement-related agencies in the County of San Mateo. These agencies include San Mateo County Departments: Sheriff's Office, District Attorney, Probation, Coroner, Parks and Recreation, and Animal Control; as well as the California Highway Patrol, local Police Departments, California Fish and Game, and local transportation authorities. The San Mateo County Sheriff's Office Forensic Laboratory also provides forensic services, by contractual agreement, to the City of Vallejo (Solano County) and the City of Concord (Contra Costa County).

On May 11, 2005, the San Mateo County Sheriff's Office Forensic Laboratory began performing STR DNA analysis. On September 11, 2010, the San Mateo County Sheriff's Office Forensic Laboratory was accredited by the American Society of Crime Laboratory Directors/Laboratory Accreditation Board International (ASCLD/LAB). The San Mateo County Sheriff's Office Forensic Laboratory undergoes external audits, not less than once every 2 years, to demonstrate compliance with the DNA Quality Assurance Standards established by the Director of the Federal Bureau of Investigation.

The Federal funding from the FY2013 Forensic DNA Backlog Reduction Program will be used between October 1, 2013 and March 31, 2015, for the following goals:

1. Reduce the forensic DNA case turnaround times through the continued employment of 1 extra-help criminalist and the purchasing of supplies.

2. Increase the capacity of the laboratory by purchasing equipment (laptops) and by continuing to employ 1 extra-help criminalist.
3. Provide the required continuing education for four criminalists.

The San Mateo County Sheriff's Office does anticipate a reduction in the DNA case backlog; however, this reduction will not occur until the laboratory completes the hiring process and competency test for 1 experienced criminalist, and until the one criminalist currently in training has completed his training in Complex Mixtures (anticipated completion date of June 2014). The laboratory does expect to complete at least 153 cases by the end of the award period. The turnaround time is expected to be reduced to 280 days or less, and the criminalist throughput for samples analyzed per month per analyst is expected to increase to 20 samples. Currently, 5 fully qualified, independent, examiners are responsible for working on DNA cases, 2 examiners are working DNA cases as part of their supervised casework, and 1 examiner is in training. As stated above, the laboratory anticipates the completion of training for the 1 criminalist by the end of June 2014 (although in the laboratory's FY12 Backlog DNA Grant application, we originally anticipated a June 2013 completion date). The addition of these 2 trained examiners will assist in the decrease in the turnaround time of all casework submitted to the Forensic Biology Section.

[Return to Page 1](#)

FY13 Recipient Name: County of Santa Clara (CA)

Award Number: 2013-DN-BX-0106

Award Amount: \$293,224

Abstract: The Crime Laboratory, under the Office of the Santa Clara County District Attorney, is the local government laboratory responsible for the analysis of physical evidence collected within Santa Clara County; it serves over 30 criminal justice agencies, including the sheriff, medical examiner, and all municipalities within the County. Crimes reported for Santa Clara County in calendar year 2009 included 5,013 violent crimes, 23,790 property crimes, 28,303 instances of larceny-theft, and 403 cases of arson. This information was obtained from the Office of the Attorney General for the State of California Department of Justice's website. We are a full-service DNA laboratory providing biological screening of evidence, autosomal STR analysis, and YSTR analysis. The SCCCL is currently facing budgetary constraints in California, which makes assistance through Federal funding essential to decrease the laboratory's backlog. We are hoping to use the Federal award to achieve the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Increase the capacity of the DNA casework laboratory.

The DNA casework laboratory expects to analyze at least 60 forensic biology and DNA cases through one grant-funded casework analyst. Additionally, we hope to improve turnaround times to less than 90 days and expand our ability to implement new technologies from next generation PCR amplification kits once they are NDIS approved.

[Return to Page 1](#)

FY13 Recipient Name: County of Ventura (CA)

Award Number: 2013-DN-BX-0046

Award Amount: \$109,541

Abstract: In this grant application, the Forensic Sciences Laboratory (FSL) is requesting funds to continue funding a fixed-term DNA position to help reduce the backlog. The DNA position was established five years ago through this grant. We would also like to request funds to hire an outside contractor to conduct our validation of our genetic analyzer 3500 along with GeneMapper ID-X.

Senior examiners have been required to perform screening tests, which could equally well be performed by a junior person. The FSL would like to continue employment of a Forensic Scientist I/II in the DNA section, thereby allowing the senior staff to concentrate on the more complex DNA cases. This individual will help screen evidence and conduct DNA analysis. The overall objective of this grant is to improve DNA analysis capacity and to reduce the number of backlogged DNA cases. The laboratory's goals are: 1) to reduce the turnaround time by ten percent (from 148 days to 133 days) between submission of a DNA sample to the laboratory to having a report written for the submitting agency; and 2) to reduce the number of pending cases by sixty in a 1-year period of time. This will result in an additional 21 to 30 DNA profiles being entered into CODIS, with an anticipated result of seven to ten CODIS hits.

[Return to Page 1](#)

FY13 Recipient Name: Fresno County Sheriff Department (CA)

Award Number: 2013-DN-BX-0063

Award Amount: \$372,826

Abstract: The geographic location of Fresno County is approximately an equal distance between the major metropolitan areas of San Francisco and Los Angeles in the Central San Joaquin Valley. From east to west, the County's boundaries extend 135 miles, encompassing a geographical area of 6,007 square miles, with the Coast Mountain Range to the west and the Sierra Nevada Mountain Range to the east. Fresno County has a population of 900,348 that is expected to grow 3.4% annually in the future.

The Fresno County Sheriff's Department Forensic Laboratory provides services for the Fresno County Sheriff's Office. The forensic laboratory has two Criminalists that are trained and qualified to perform STR analysis, and currently one more is in our DNA training program. Due to staffing needs and the growing demand for DNA analysis, the Fresno County Sheriff's Department Forensic Laboratory needs to find a way to reduce backlogged DNA casework and increase our capacity. The Sheriff's Department has over 20 unsolved homicide/rape cases that need to be examined for potential DNA evidence. DNA cases can take six to nine months from request to final report, due to the size of our staff and non-efficient equipment. The forensic laboratory is seeking \$372,826 in federal funds to decrease the backlog of cases from the DNA unit and purchase updated equipment to increase the capacity of the DNA unit. This will be accomplished by using grant funds to purchase one Laser Microdissection system (vendor TBD after bid process), two Life Technologies 9700 Thermal Cyclers, and twenty-five pipettes, and sending backlogged DNA cases out to be analyzed by accredited fee-for-service vendors for analysis. The result will be a reduction in the number of days from request to issuing final DNA results to our clients and a reduction in the number of backlogged DNA cases.

[Return to Page 1](#)

FY13 Recipient Name: Los Angeles County Sheriff's Department (CA)

Award Number: 2013-DN-BX-0094

Award Amount: \$800,000

Abstract: The Los Angeles County Sheriff's Department, Scientific Services Bureau (LASD-SSB) Crime Lab exists under the County of Los Angeles and is responsible for analyzing evidence from criminal investigations for the entire County, excluding the City of Los Angeles and the area it serves. The LASD-SSB remains under severe budget constraints and overtime is strictly controlled. The Federal funding from this award will be used for the following goals:

1. Reduce and prevent casework backlog through analyst overtime and supply purchases.
2. Increase or maintain capacity of the biology section by purchasing equipment (IR light source/camera and stereomicroscopes).
3. Provide the required continuing education for 21 analysts.

The LASD-SSB can expect to reduce the DNA case backlog by at least 713 cases by the end of the award period. The turnaround time is expected to be reduced to 90 days or less, and the analyst throughput for casework is expected to be maintained at the present level of 30 samples per analyst, per month.

[Return to Page 1](#)

FY13 Recipient Name: Orange County Sheriff Coroner Department (CA)

Award Number: 2013-DN-BX-0084

Award Amount: \$418,184

Abstract: We have four goals and associated objectives that we intend to fund using the 2013 DNA Backlog Reduction Program Grant:

1. Continue funding one Forensic Scientist II position.
2. Reduce the backlog of unanalyzed forensic biology/DNA cases in the crime laboratory by analyzing a minimum of 750 backlogged property crimes using grant-funded overtime and purchased supplies.
3. Improve our sexual assault evidence extraction procedure by purchasing thermo-mixers to increase DNA recovery and decrease analyst hands-on time.
4. Provide required continuing education to DNA casework analysts.

By using the 2013 program grant funds for the above goals, the Orange County Crime Laboratory will be able to increase its capacity by retaining a fully trained DNA analyst who was hired and trained using FY2011 DNA Backlog Reduction Program Grant funding, decrease turnaround times for sexual assault evidence, and reduce our backlog by using overtime and grant purchased reagents to analyze property crime cases that are more than 30 days old. The continuing education funded by the grant will provide DNA analysts the opportunity to learn about new technology and instrumentation which they can then implement in the laboratory.

[Return to Page 1](#)

FY13 Recipient Name: Sacramento County (CA)

Award Number: 2013-DN-BX-0060

Award Amount: \$480,632

Abstract: The Sacramento County District Attorney Laboratory of Forensic Services (hereafter

referred to as the crime laboratory) is to continue partnering with local police agencies and the District Attorney to target and solve those criminal cases that will have the most significant impact on the prosecution of violent crimes. The emphasis of the crime laboratory's 2013 backlog reduction operations will be on the timely analysis of DNA-related evidence from violent crime cases and the remediation/prevention of a backlog of DNA cases across the spectrum of reported crimes identified by law enforcement agencies as critical homicide and sexual assault cases. There is no crime scene collection component to this grant.

The objectives of the crime laboratory to be completed during the 18-month duration of the FY 2013 Forensic DNA Backlog Reduction Program includes directing the grant-funded DNA analysts to conduct the screening, preparation, and DNA profiling on biological evidence from at least 150 DNA cases. Eligible DNA profiles from these cases will be uploaded to CODIS. One consultant will be funded to assist in backlog reduction and casework turnaround time projects by conducting administrative reviews of DNA casework reports prior to release to the investigating agencies.

As with previous DNA grants, the FY 2013 Forensic DNA Backlog Reduction Program will provide funds for training and continuing education of the DNA analysts per the FBI's quality assurance standards for forensic testing laboratories. Providing continuing education and advanced training to the laboratory's experienced DNA analysts will ensure that the crime laboratory delivers the best possible, most efficient, and timely forensic DNA analytical services to Sacramento County.

The crime laboratory has prepared an implementation plan that funds three DNA analysts, a consultant to administratively review DNA reports, and continuing education and training opportunities for DNA analysts in the Crime Laboratory's Biology Unit. The Project Director will closely monitor the grant to ensure progress is being made in all aspects of the grant.

[Return to Page 1](#)

FY13 Recipient Name: San Diego County (CA)

Award Number: 2013-DN-BX-0076

Award Amount: \$379,379

Abstract: The San Diego County Crime Laboratory (the Lab) is a full-service, ASCLD-LAB-accredited forensic science facility. The Lab's forensic biology section provides casework DNA analysis services to law enforcement agencies in the County of San Diego, California (exclusive of the City of San Diego). The Lab faces a steadily increasing workload of DNA analysis requests, occasioned by our recent focus on property crime cases and the expectations of our clients. This increase will further strain our already stretched financial and personnel resources. We hope to minimize the resulting impact on our operation by pursuing the following goals:

1. Reduce our backlog of work requests by providing overtime and supplies for additional casework.
2. Improve our analysis capacity by updating our genetic analysis equipment and software, providing service contracts for critical DNA analysis equipment, and continuing a lease on a copier.
3. Provide required continuing education for some of the Lab's DNA analysts.

[Return to Page 1](#)

FY13 Recipient Name: City and County of Denver (CO)

Award Number: 2013-DN-BX-0030

Award Amount: \$219,070

Abstract: The Denver Police Department (DPD) Crime Laboratory serves the City and County of Denver by using forensic technology to solve crime, thereby increasing public safety. The DPD Crime Laboratory DNA and Forensic Biology (DNA/FBIO) units seek federal support in support of three goals:

1. Reduce the number of cases backlogged throughout the FY 2013 grant period.
2. Increase the capacity of the staff working in the laboratory.
3. Fulfill continuing education requirements specified in the DNA Quality Assurance Standards for five DNA/FBIO analysts.

The laboratory will meet these goals by way of the following objectives:

- 1A. Outsource 100 backlogged property crimes to a contract DNA laboratory for STR DNA analysis.
- 1B. Provide forensic scientist overtime to support the outsourcing project through:
 - Evidence examination and forensic biology testing of at least 68 property crimes cases and
 - Technical review of the STR DNA data and upload of eligible DNA profiles to CODIS of 100 cases.
- 1C. Retain a full-time laboratory technician for 9 months to examine evidence from 68 or more property crimes and prepare samples from 100 backlogged property crimes that will be outsourced (this goal is shared between the lab technician and the forensic scientist overtime). This technician will be responsible for sending/receiving the evidence to and from a contract DNA laboratory.
2. Retain a part-time laboratory technician for 12 months and a full-time laboratory technician for 7 months to cut DNA samples from sexual assault kits and known reference samples, and to support the laboratory through non-casework duties such as instrument maintenance, reagent preparation, temperature monitoring and laboratory decontamination.
3. Provide training opportunities for five DNA/FBIO analysts to meet their 2014 required continued education requirements specified in the DNA Quality Assurance Standards.

By implementing these measures, the DPD Crime Laboratory will target a significant backlog of property crimes, provide quality assurance support through laboratory technicians, and comply with national quality assurance standards regarding continuing education.

[Return to Page 1](#)

FY13 Recipient Name: City of Colorado Springs (CO)

Award Number: 2013-DN-BX-0043

Award Amount: \$110,157

Abstract: The Colorado Springs Metro Crime Laboratory (MCL) provides forensic chemistry, firearms, and DNA analysis of evidentiary items resulting from criminal cases within the

jurisdictions of the Colorado Springs Police Department (CSPD) and the El Paso County Sheriff's Office (EPSO).

During 2012, due to personnel issues, the MCL only conducted DNA analysis under a cold case grant and sent items from current cases that needed to be processed for DNA to the Colorado Bureau of Investigation (CBI) laboratory. Since the beginning of 2013, the MCL's DNA analysis unit is fully operational again and accepting new cases. In addition, the MCL received DNA cases back from CBI that had remained unworked there. As a result, the MCL currently has a significant number of requests for DNA analysis that are more than 30 days old and, per definition, are backlogged.

The MCL has two full-time employees that work cases submitted for analysis in the forensic discipline of biological screening/DNA analysis. With the current DNA case backlog, only high priority cases can be assigned for DNA analysis. Of the DNA cases that were assigned for analysis since the beginning of 2013, 70% were related to homicides, attempted homicides, or sexual assaults. Other cases that were assigned are related to investigations for arson, kidnapping, and armed robberies. Many other evidentiary items have been submitted for DNA analysis; however, due to the current caseload of the DNA analysts, they could not be assigned for DNA analysis yet.

To alleviate the DNA backlog, the MCL will contract with an accredited fee-for-service laboratory to perform DNA analysis. In-house staff (using overtime) will select cases to be sent to the fee-for-service laboratory, package and ship the items to be analyzed, and upon receipt of the results, review the data for CODIS eligibility and entry into CODIS (using overtime). Grant funds from the DNA Backlog Reduction Program will enable the MCL to enter into a fee-for-service contract with an accredited laboratory to process DNA samples, as well as pay for the overtime for in-house staff to complete the necessary work related to the outsourcing of DNA casework, review of the results, and CODIS entry (if eligible). The MCL expects to submit 53 cases for DNA analysis to the fee-for-service laboratory during the grant period. It is anticipated that these steps will result in a measurable reduction in the DNA backlog.

[Return to Page 1](#)

FY13 Recipient Name: Colorado Bureau of Investigation (CO)

Award Number: 2013-DN-BX-0035

Award Amount: \$688,818

Abstract: The Colorado Bureau of Investigation – Forensic Services (CBI-FS) is the state agency responsible for analyzing evidential material associated with criminal investigations for all state and local criminal justice agencies. CBI-FS maintains five regional laboratories located in Denver, Grand Junction, Greeley, Pueblo and Boulder. The facilities located in Denver, Grand Junction, and Pueblo have DNA analysis capabilities. The Boulder laboratory is expected to be opened in the summer of 2013.

The past few years of economic downturn have been hard on all government agencies, including the CBI-FS. While the economy is beginning to look up in Colorado, this has brought additional assignments from our state legislature. We are currently looking at expected passing of a bill that will require the submission and analysis of all sexual assault evidence kits collected within the state. Another bill anticipated to come out of this year's session will add Level 1

Misdemeanor arrestees to the DNA database. These both will have a significant impact on the backlog and demands on the CBI-FS DNA system.

Therefore, the four goals of the FY 2013 DNA Backlog Reduction Program are to:

- Goal 1: Reduce the backlog of DNA forensic samples
- Goal 2: Increase capacity of the CBI-FS DNA Casework Unit.
- Goal 3: Provide required continuing education.
- Goal 4: Increase the capacity of the CBI-FS DNA Database Unit.

[Return to Page 1](#)

FY13 Recipient Name: Department of Emergency Services and Public Protection (CT)

Award Number: 2013-DN-BX-0110

Award Amount: \$627,120

Abstract: The Department of Emergency Services and Public Protection is a unit of State government. The Department's Division of Scientific Services comprises three sections: the DNA/Forensic Biology Section, the Controlled Substances and Chemistry Section, and the Identification Services Section. These sections, each unique in its service offerings, conduct all evidence examinations for Connecticut. The Department of Emergency Services and Public Protection has an existing forensic DNA laboratory. The Division of Scientific Services, part of the Department of Emergency Services and Public Protection, conducts all forensic examinations for Connecticut. The Department's Division of Scientific Services is the designated crime laboratory that conducts analysis of DNA database samples for Connecticut, serving over 370 local, State, and Federal stakeholders. The Division of Scientific Services derives its statutory authority from Connecticut General Statutes §29-7b and §54-102h.

Connecticut has faced budgetary challenges over the last several years and the Division of Scientific Services continues to experience backlogs. Faced with these challenges, the Department of Emergency Services and Public Protection requests Federal grant funds to support the Division of Scientific Services.

Goals and objectives: The number of backlogged DNA cases to be solved by DNA testing is about 460 cases. At the end of this DNA grant program (October 1, 2013, through March 31, 2015), the following goals will be accomplished:

1. Reduce the backlog of DNA cases by about 460 and, as appropriate, enter DNA profiles into state and national DNA databases.
2. Increase the testing capacity of the DNA/Forensic Biology Section.
3. Maintain the testing capacity of the Database Section.
4. Reduce the backlog of offender samples by 1,007 and enter offender profiles into state and national DNA databases.

Project plans and methods of achieving goals: The standard Division of Scientific Services Quality Assurance/Quality Control policies and procedures shall be followed regarding evidence examination, confirmation of biological materials, decisions concerning which cases to outsource or to forward for DNA testing, and all interpretations of DNA profiles, using current Division of Scientific Services staff and durational DNA analysts.

The Department of Emergency Services and Public Protection is requesting funds for a Lean Six Sigma review of the DNA/Forensic Biology Section of the Division of Scientific Services.

[Return to Page 1](#)

FY13 Recipient Name: Metropolitan Police Department (DC)

Award Number: 2013-DN-BX-0111

Award Amount: \$438,971

Abstract: The District of Columbia Department of Forensic Sciences (DC DFS) is responsible for providing forensic analyses of physical evidence as it pertains to violent crimes committed in the District of Columbia. The Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic biology cases.
2. Improve laboratory efficiency by increasing laboratory capacity and reducing bottlenecks.
3. Provide continuing education to all analysts participating in the Backlog Reduction Project.

[Return to Page 1](#)

FY13 Recipient Name: Delaware Health and Social Services (DE)

Award Number: 2013-DN-BX-0109

Award Amount: \$342,324

Abstract: The Office of the Chief Medical Examiner (OCME) Forensic Sciences Laboratory is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state of Delaware. Delaware Code (Title 29, Chapter 47) designates the DE OCME as the agency responsible for conducting DNA analysis on DNA samples collected by the Delaware Department of Correction from all convicted felons; the DE OCME is responsible for storing and maintaining the resultant DNA profiles in the Delaware State DNA Index System.

1. Reduce the forensic DNA case backlog through the purchasing of new equipment and supplies.
2. Reduce the DNA database sample backlog through the purchasing of supplies.
3. Increase the capacity of the laboratory by purchasing equipment (Applied Biosystems 3500 Genetic Analyzer and digital microscopes).
4. Increase the capacity of the laboratory by validating the next generation amplification kits (PowerPlex® Fusion System - Promega and GlobalFiler™ STR Kit - Life Technologies).
5. Provide the required continuing education for each analyst.

The DE OCME DNA Unit can expect to reduce the DNA case backlog by at least 60 cases by the end of the award period. The agency also expects to work at least 1,500 DNA database samples using Federal funding. The turnaround time is expected to be reduced to 90 days or less, and the analyst throughput in the casework sections is expected to increase 20%.

[Return to Page 1](#)

FY13 Recipient Name: Broward Sheriff's Office (FL)

Award Number: 2013-DN-BX-0092

Award Amount: \$516,999

Abstract: At the current time, the Broward Sheriff's Office has a backlog of approximately 425 cases. We are requesting funding so that the unit can perform in-house analysis on these cases. This funding will assist in keeping the backlog from growing and will be utilized to work cases that are being requested or those that have court dates in the foreseeable future. In addition, cases which lack suspects will also be worked. Funding is being requested for kits, consumables, and personal protective equipment.

As part of the DAB requirements, every DNA analyst must attend training on a yearly basis. This has always presented a challenge due to budget restraints; this has not changed. The department's budget has been cut and training was one of the areas where funding was reduced. As a result, funding for training is being requested so that we can circumvent this continuing critical issue. As part of this grant, we would like to request continued funding to two individuals who have been hired using previous grant funds. One goal of the unit is to decrease turnaround time and increase output. We believe that by purchasing several new pieces of equipment we will be able to do that. The epMotion is an automated pipetting system that will be used to eliminate analysts having to pipette by hand. The advantage of this is that the instrument will do the work, freeing up the analyst to move on to something else. In addition, because it is robotic-driven, pipetting will be more accurate. It will be used in quantitation, amplification and CE set up. The Rotor-Gene Q 6000 performs real-time PCR and serves as a thermocycler. Since this is a rotary system, it provides excellent thermal and optical properties. It has proven to be low maintenance in many laboratories and performs applications such as Qiagen Quantitation systems optimally. The BioSpectrometer fluorescence determines very low concentrations of biomolecules using fluorescent dyes. DNA can be reliably quantified well beyond the common lower detection limit. We will use this instrument for quantitation of standards.

[Return to Page 1](#)

FY13 Recipient Name: Florida Department of Law Enforcement

Award Number: 2013-DN-BX-0118

Award Amount: \$3,404,403

Abstract: Florida Department of Law Enforcement (FDLE), as mandated by Chapter 943 Florida Statutes, operates a statewide forensic crime laboratory system to provide timely, expert and professional examination of evidentiary materials to aid in the investigation, prosecution and exclusion of criminal offenses in the state of Florida. The Biology/DNA needs of Florida's criminal justice community are serviced by a network of FDLE laboratories and five local laboratories that make up the Florida crime laboratory system. FDLE has six internationally accredited DNA laboratories that provide Biology/DNA analysis services.

The heavy demand for Biology services continued in 2012, with over 10,900 Biology cases worked. The large volume of cases has been attributed to a number of factors including Florida's 18 million population and continued high volume of reported crime (769,480 index crimes as of last available report in 2011). Increased law enforcement awareness of the crime-solving value of Florida's DNA database also contributes to requests for Biology/DNA service

that would not have been submitted a few years ago. Biology casework related to cold cases and touch DNA are on the rise. During 2011, Florida began collecting DNA from persons arrested for violent felony offenses. Moving from conviction-based criteria to include arrestees increased submissions to the database and increased case work demand as well. The second phase of arrest-based DNA collection began January 1, 2013, for property crimes (burglary, theft and robbery). FDLE anticipates this expansion phase will again increase the volume of submissions to the DNA database by an estimated 21,184 additional samples in 2013. Based on these factors, FDLE anticipates that incoming casework for Biology will continue to be significant over the next several years.

With funding provided under this award, the Florida Department of Law Enforcement plans to achieve a reduction in the forensic DNA case backlog, an increase in DNA analysis throughput, an increase in laboratory capacity, and the continuing education for analysts. In order to reduce the DNA case backlog, the FDLE will fund overtime and supplies to be used for in-house casework as well as outsource casework to private accredited laboratories. DNA analysis throughput will be increased by funding overtime for laboratory personnel, employing four temporary Forensic Technologists for case management, hiring one Crime Lab Analyst Trainee to replace a retiring analyst, and procuring supplies for case work. The FDLE proposes to increase laboratory capacity by continuing its transition from the AB3130 genetic analyzer to the AB3500xl genetic analyzer. One AB3500xl will be purchased with this award's funding. Capacity will also be increased with overtime used to perform case work screenings and analysis. Finally, as a goal is to provide continuing education for analysts, the FDLE plans to provide reasonable travel expenses and registration costs for training and conferences associated with the Biology/DNA discipline.

[Return to Page 1](#)

FY13 Recipient Name: Miami Dade County (FL)

Award Number: 2013-DN-BX-0073

Award Amount: \$1,082,739

Abstract: The National Institute of Justice has allocated \$5,852,461 to the State of Florida as part of the FY 2013 Forensic DNA Backlog Reduction Program. Based on data obtained from the 2011 Florida Uniform Crime Report (UCR), the Miami-Dade Police Department (MDPD) Forensic Services Bureau (FSB) Crime Laboratory has been offered \$1,082,739 as its portion of the formula grant. The FSB Crime Laboratory proposes to use these funds to continue to increase the laboratory's capacity to analyze DNA samples, reduce the DNA sample turnaround time, and reduce the number of backlogged DNA cases awaiting analysis.

The laboratory's capacity to analyze DNA samples has benefited directly from the current grant-funded personnel, and these three positions will be funded via this award as well. The Criminalist is a fully trained DNA analyst with the ability to process DNA casework from start to finish. The Forensic Photographer will continue to enhance case documentation by photographing each evidence package upon submission to the laboratory. Also, the Police Property and Evidence Specialist (PPES) will continue to handle evidence storage and retrieval within the Forensic Biology Section, as well as assist with shipments of DNA casework

outsourced to the vendor laboratory. This has relieved these time-consuming duties from Criminalists, who have been able to focus more time on analyzing DNA evidence items. In preparation for the FBI requiring analysis of additional loci beyond the 13 original CODIS core loci, the FSB is requesting funds in order to purchase and validate Life Technologies' Globalfiler DNA amplification kit. This kit will satisfy the proposed new requirements for CODIS participating laboratories. The implementation of this new kit will require the FSB to purchase new STR data analyzing software and upgrade its three 3130xL genetic analyzers.

Funds are requested in order to reduce the backlog of DNA cases by outsourcing casework to a commercial DNA laboratory. To maximize the number of cases that can be outsourced for DNA analysis, funds are requested to pay overtime to FSB Crime Laboratory Criminalists to conduct the initial examination and screening of the evidence for potential biological material, prepare the DNA samples to be shipped, and conduct the DNA technical review required to determine whether the criteria are met for CODIS entry. The commercial laboratory will conduct the DNA analysis, issue a court-ready report and provide testimony in any future judicial proceedings. Criminalists will also utilize overtime in order to complete validation projects that are necessary to the operation of the Forensic Biology Section.

Funding is also requested for the implementation of a Laboratory Lean Six-Sigma Project. Laboratory Lean Six-Sigma is a management and organizational process mapping method used to strengthen a laboratory by eliminating non-value activities in order to maximize the overall productivity and efficiency of the Forensic Biology Section. Project teams will identify areas of bottlenecks in the DNA workflow and then create a process where samples and evidence flow through the laboratory in the most efficient manner possible. The in-depth and thorough project will be followed up a few months later with a visit to the FSB by the project team to ensure progress of the new system. Also, the project team will certify five FSB DNA analysts in Lean Six Sigma project methods, standards and principles.

Quality Assurance Standards for Forensic DNA Testing Laboratories mandate that each DNA analyst must fulfill annual continuing education requirements. Travel and registration funds are requested for FSB DNA analysts to satisfy these requirements by attending national conferences and participating in workshops.

The FSB Crime Laboratory has identified these goals for this project and has formulated a detailed plan to accomplish these goals. Ultimately, through funding from this award, the FSB Crime Laboratory will be able to increase its capacity to analyze DNA cases and reduce its backlog. This will generate more DNA profiles for database entry and more investigations will be assisted, thus contributing to the safety of Miami-Dade County's residents.

[Return to Page 1](#)

FY13 Recipient Name: Palm Beach County Sheriff's Office (FL)

Award Number: 2013-DN-BX-0047

Award Amount: \$389,345

Abstract: The Forensic Biology Unit (FBU) of the Palm Beach County Sheriff's Office (PBSO) Crime Laboratory is responsible for analyzing evidential material associated with criminal investigations for over 28 municipalities and the school systems, and assists local

Federal agencies, as needed. The function of the FBU is to conduct DNA analysis on crime scene evidence regardless of the offense. The goal of reducing the existing forensic DNA casework backlog must be accomplished coincident with the reduction of the turnaround time for processing, recording, screening, and analyzing forensic DNA cases. The citizens of Palm Beach County have been and will continue to be provided with fully validated technologies and methodologies in forensic DNA analysis in order to provide the highest quality casework and prevent future DNA backlogs. The Federal funding from this award will help the laboratory increase and maintain capacity, as well as help the laboratory implement a more streamlined workflow. This award will be specifically used for the following goals:

1. Streamline the workflow and reduce turnaround time by eliminating variation, defects and non-value-added activities.
2. Increase and maintain the capacity and capabilities of the Forensic Biology Unit.
3. Continue to reduce time-consuming administrative tasks by scanning and archiving all DNA-related documents to improve retrieval and storage.
4. Maintain continuing education for all analysts in the lab.

As a result of funding from this grant, the PBSO Forensic Biology Unit expects to reduce turnaround time and increase productivity through added instrumentation, software, electronic document storage, and an improved workflow, in turn reducing the number of cases currently on the laboratory's backlog. The laboratory expects to reduce its turnaround time to 100 days and increase the productivity of each analyst to at least 30 samples per month.

[Return to Page 1](#)

FY13 Recipient Name: Pinellas County (FL)

Award Number: 2013-DN-BX-0105

Award Amount: \$333,061

Abstract: The Pinellas County Forensic Lab (PCFL) provides laboratory services for the forensic analysis of evidence associated with criminal investigations and decedent identification for the law enforcement community and medical examiner's office operating within Pinellas County, Florida. PCFL maintains a full-service casework DNA section within its operations. PCFL is continuing to face significant budgetary constraints, which is coupled with an increasing DNA submission rate. Federal funding from this award will be used for the following goals:

1. Maintain minimal DNA backlogs for maintaining staffing levels.
2. Increase casework capacity by decreasing key bottlenecks in case management.
3. Maintain or increase current laboratory capabilities by purchasing supplies and services.
4. Increase casework capabilities by validating new technologies.

PCFL expects to analyze at least 255 additional cases, based upon casework supply funds (73) and casework performed by grant funded analysts (182) over the award period. The agency will maintain an average turnaround time of less than 30 days and maintain productivity levels for each analyst of at least 70 items per month.

[Return to Page 1](#)

FY13 Recipient Name: St. Lucie County Sheriff's Office (FL)

Award Number: 2013-DN-BX-0117

Award Amount: \$125,913

Abstract: The Indian River Crime Laboratory provides scientific and technical services to all state, county, federal and municipal law enforcement agencies within the 19th Judicial Circuit of Florida, and occasionally assists agencies outside the Circuit. The Laboratory is located in the city of Fort Pierce and covers a 4-county service area of 2,420 square miles, which includes St. Lucie, Indian River, Okeechobee and Martin counties. The Laboratory's budget comprises funds contributed by 12 law enforcement agencies located within the circuit. The extended economic downturn has forced public sector agencies to institute significant cuts to their budgets over the past few years, which requires the Indian River Crime Laboratory to anticipate possible reduced funding levels in the near future. Capital improvements such as the purchase of new instrumentation can put a laboratory's annual budget at risk due to the high cost outlay of the equipment. With this in mind, IRCL is continually looking for ways to make the best use of its existing funding, as well as to further streamline processes to increase throughput, reduce the time of delivery of results to our service area and continue efforts to reduce/eliminate the DNA backlog. The IRCL is requesting funds under this award to accomplish the following goals:

1. Increase the capacity and capabilities of the Indian River Crime Laboratory.
2. Maintain required annual continuing education for existing DNA analysts to meet the FBI DNA Quality Assurance Standards.

[Return to Page 1](#)

FY13 Recipient Name: Georgia Bureau of Investigation

Award Number: 2013-DN-BX-0080

Award Amount: \$2,164,659

Abstract: The Georgia Bureau of Investigation-Division of Forensic Sciences (GBI-DOFS) currently has a relatively small backlog of forensic biology cases. The major problem faced by the laboratory is insufficient state funding to maintain an adequate staffing level to address new casework analysis requests. The goals of this project are to maintain current casework analysis staffing levels in forensic biology. This award will be used to fund salary and benefits for 11 casework analysts and 2 casework technicians, and to purchase supplies associated with casework analysis for a period of up to 18 months. Mandatory continuing education for up to 16 analysts will be funded and process optimization exercises will be conducted.

The expected outcome of this project is that at least 803 cases will be analyzed in-house as a result of award funding. Report timeliness will be improved so that by the end of the project, the average number of days to issue a DNA report will be 60 days or less, as measured from the date of initial request for analysis.

[Return to Page 1](#)

FY13 Recipient Name: City and County of Honolulu (HI)

Award Number: 2013-DN-BX-0059

Award Amount: \$283,342

Abstract: The Honolulu Police Department's Scientific Investigation Section (HPD-SIS) maintains the only forensic DNA testing laboratory in the State of Hawaii. The section serves a

county population of more than 900,000 and is staffed with four criminalists and three grant-funded criminalists. In addition to providing casework services, the unit is also responsible for the state's convicted offender DNA database. Although we are a county agency, we are often asked to assist other jurisdictions including federal agencies, branches of the military, and law enforcement agencies located in the Pacific Basin.

The HPD-SIS will face continued budgetary constraints in the next fiscal year. Budget cuts over the last four years have prevented the laboratory from filling vacant positions. Employee furloughs have shortened servicing hours. The Federal funding from this award will be used toward the following goals:

1. Increase the capacity of the HPD-SIS's forensic biology laboratory.
2. Maintain current laboratory capacity by replacing aging equipment.

The HPD-SIS expects to reduce case turnaround time to less than 60 days.

[Return to Page 1](#)

FY13 Recipient Name: Iowa Department of Public Safety

Award Number: 2013-DN-BX-0014

Award Amount: \$512,429

Abstract: The Iowa Department of Public Safety, Division of Criminal Investigation Crime Laboratory (IDPS-DCI) is the agency that is responsible for analyzing evidential material that is associated with criminal investigations for all state and local law enforcement agencies within the state of Iowa. The Code of the State of Iowa designates the IDPS-DCI crime lab as the agency responsible for conducting DNA analysis on DNA samples collected from crime scenes, as well as DNA samples collected from all individuals convicted of a felony and individuals convicted of sexual offenses within the State of Iowa. The IDPS-DCI crime lab is a single laboratory system.

The IDPS-DCI crime lab is facing budgetary constraints due to the inability to replace staffing lost over the last five years. The IDPS-DCI crime lab is also anticipating a database expansion legislation that will significantly increase the number of DNA database samples that will need to be analyzed. The Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Identify areas where we could increase efficiency and capacity in the casework and database sections.
3. Obtain an external DNA QAS Audit.
4. Increase capacity and capability in the databasing section.

[Return to Page 1](#)

FY13 Recipient Name: Idaho State Police

Award Number: 2013-DN-BX-0012

Award Amount: \$250,000

Abstract: Project Scope and Objectives: The scope of this project is to increase the analysis capacity and efficiency of the DNA lab, enhance the current DNA sample process workflow

software, improve monitoring of the storage conditions for biological evidence, and diversify the training opportunities provided to the DNA staff. The objectives are:

1. Improve the DNA analysis capacity and decrease turnaround time by implementing a high-throughput DNA sample processing software that integrates the scientific processing steps with the current laboratory information management (LIMS) software.
2. Utilize training funds for continuing education opportunities for DNA casework and database analysts.
3. Automate the monitoring of biological evidence cold storage.

Project Design and Methodology: Idaho State Police Forensic Services (ISPFS) will use the 2013 DNA funds to refine the DNA and DNA database programs. Laboratory management used previous grants to build capacity by purchasing instruments, implementing software, and validating new technologies. The strategic plan of the DNA section this year is to focus all efforts on process efficiency and maintenance of analyst competency. The objectives written in this grant will adhere to that strategic plan by improving the capacity and quality of the DNA unit, while not requiring extensive validation work or research. ISPFS focused grant purchases on necessary and helpful process improvements, while allowing the scientists to focus more time on the bench. ISPFS will accomplish the three outlined objectives as described below.

To meet objective #1, the laboratory will purchase a workflow management software suite that will interface the DNA scientific instruments with the current Porter Lee “BEAST” LIMS system. The new supplemental software will provide sample workflow management from the current LIMS interface to the DNA instruments and from the DNA instruments back to the LIMS. There are several commercially available software tools that are being evaluated to fill this need in support software. The laboratory has an in-house programmer to manage the software tools and implement the solution selected.

Objective #2 is to provide training funds for DNA examiners. State funding has been cut for DNA analysts. The grant funding allows analysts to attend critical DNA conferences and training out of state. The DNA Technical Leader orchestrates the staff, strategically attending many of the important DNA conferences and regional meetings. The DNA technical leader adjusts the schedule based on feedback from previous years. The technical leader evaluates the feedback so that ISPFS has representation at the most informative DNA meetings. The staff will attend meetings on this grant such as AAFS, Bode, Green Mountain, Promega, and others. The attending staff member will report back to the other staff members using a “train the trainer” format. The attendee is required to present the conference material to the other members of the unit upon their return.

Objective #3 is to automate the monitoring of biological evidence cold storage. Grant funds will purchase a temperature monitoring system for all biological refrigerators and freezers, including the walk-in refrigerator/freezer in the main laboratory vault. Grant funds were approved under the 2012 grant for purchase of a temperature monitoring system, but the project had to be put on hold due to unexpected costs to install the walk-in refrigerator/freezer unit. The temperature monitoring system will provide the objective proof of temperature range compliance and will monitor temperature conditions constantly so that evidence and reagents are not damaged or ruined. The system will report problems to laboratory staff and management, so that these

individuals can deal with the problem in a timely manner. The system will save the time of an analyst assigned to monitor these conditions on a daily basis.

The objectives outlined will allow ISPFS to accomplish the goals of capacity enhancement, efficient operations, and quality standards. ISPFS is firmly committed to backlog elimination and capacity enhancement, and this grant will provide the required funds for those goals to be accomplished in Idaho.

[Return to Page 1](#)

FY13 Recipient Name: DuPage County Sheriff's Office (IL)

Award Number: 2013-DN-BX-0025

Award Amount: \$296,770

Abstract: As a result of previous federal assistance, the laboratory has reduced the time required for DNA analysis dramatically. Even part-time analysts are now able to complete DNA analysis of a prepared sample in 2–3 days. Two processes are hindering the laboratory from further reducing turn-around time: (1) screening and preparing samples for DNA, and (2) DNA data interpretation, particularly when a complex mixture of DNA profiles is observed. Slower turnaround time (TAT) results in a reduction of laboratory capacity, and reduction in capacity leads to case backlogs. Also, lack of local resources focuses attention on only the most serious crimes, leading to a backlog of property crimes. Since property crimes are responsible for a large percentage of CODIS hits, fewer criminals are apprehended. Further, since research from the Virginia Department of Forensic Services has demonstrated that it is not uncommon for a criminal committing one category of crime (e.g., burglary) to also be committing other types of crimes (e.g., sexual assault), public safety is reduced.

This project will increase public safety by reducing backlog and TAT through the purchase of supplies necessary for the analysis of forensic DNA samples, while aiding the laboratory in remaining compliant with FBI QAS training requirements. This project will also increase the capacity of the DNA laboratory to address an increasing number of cases with higher effectiveness and consistency. Implementation of improved evidence screening methods will actually reduce expenditures in the future by providing faster and more selective preparation of DNA samples.

[Return to Page 1](#)

FY13 Recipient Name: Illinois State Police

Award Number: 2013-DN-BX-0018

Award Amount: \$2,720,939

Abstract: The Illinois State Police (ISP), Forensic Sciences Command is responsible for analyzing evidence associated with criminal investigations for approximately 1,200 criminal justice agencies located throughout the State of Illinois. The ISP forensic science laboratory system comprises seven case-working laboratories, a Research and Development Laboratory, and a statewide training program. Each laboratory has a DNA section, which part of the Illinois State Police. The state's DNA indexing laboratory is also a part of the Illinois State Police, Springfield Forensic Science Laboratory.

The ISP is facing budgetary constraints. The federal funding from this award will be used for the following goals:

1. Reduce the forensic biology and DNA case backlog through analyst overtime and purchasing supplies.
2. Reduce the turnaround time of FB and DNA case backlog through analyst overtime and purchasing supplies.
3. Increase the capacity of the laboratory system by purchasing equipment (genetic analyzers) for all of the casework laboratories.

The ISP expects to work at least 2,200 cases more than what could be worked without this funding.

[Return to Page 1](#)

FY13 Recipient Name: Northeastern Illinois Regional Crime Laboratory

Award Number: 2013-DN-BX-0020

Award Amount: \$296,770

Abstract: The Northeastern Illinois Regional Crime Laboratory is an intergovernmental laboratory that analyzes evidential material, including Biology/DNA analysis. NIRCL is experiencing budgetary constraints. This is in spite of the great increase in the number of DNA submissions as well as increased expectations of applying DNA analysis to a myriad of case types. Funding will be used to address the following goals:

1. Decrease the backlog by reducing the turnaround time of DNA analysis.
2. Maintain current lab capabilities by purchasing service agreements for crucial equipment.
3. Provide required education for DNA analysts.

[Return to Page 1](#)

FY13 Recipient Name: Indiana State Police

Award Number: 2013-DN-BX-0007

Award Amount: \$816,712

Abstract: The Indiana State Police (ISP) is the agency that is responsible for analyzing evidentiary material associated with criminal investigations for all state and local law enforcement agencies within the state of Indiana, with the exception of Indianapolis/Marion County. ISP maintains four regional laboratories - the Evansville, Fort Wayne, Indianapolis and Lowell Laboratories. Indiana Code designates the ISP as the agency responsible for conducting DNA analysis on DNA samples collected from all convicted felons in the state of Indiana; the ISP is responsible for storing and maintaining the resultant profiles in the Indiana DNA Database. The Indianapolis Regional Laboratory maintains the DNA Database Unit. The ISP is facing budgetary constraints. State funds for overtime, equipment, training and contracts are non-existent or very limited. This has placed a burden on the Laboratory Division to maintain operations. The Federal funding from this award will help to alleviate this burden as well as assist in giving analysts more time and supplies to work forensic casework. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Reduce the backlog of DNA database samples.
3. Increase the capacity of the ISP database laboratory.
4. Increase and maintain the capacity and capabilities of the ISP casework laboratories.

5. Maintain continuing education for all analysts in the lab.

The ISP expects to analyze at least 2,000 forensic biology and DNA cases (1,500 with overtime and 500 with supplies), and 5,000 database samples with overtime. The lab also expects to reduce the casework turnaround to less than 40 days and increase the productivity of each analyst to 60 samples per month.

[Return to Page 1](#)

FY13 Recipient Name: Indianapolis-Marion County Forensic Services Agency (IN)

Award Number: 2013-DN-BX-0042

Award Amount: \$511,142

Abstract: The Indianapolis-Marion County Forensic Services Agency (I-MCFSA) is a local government agency that provides the Marion County, State, and Federal criminal justice systems with forensic laboratory services. We provide prompt, accurate and quality forensic analysis on requests submitted by Public Safety agencies in the Criminal Justice System. The I-MCFSA performs scientific examinations of physical evidence pertaining to crimes occurring in the City of Indianapolis and the County of Marion. The laboratory also supports federal investigations in other Indiana Counties as part of joint investigation task forces originating in Marion County.

This laboratory is the first full-service forensic laboratory in Indiana accredited in the ASCLD/LAB-International program, and the 35th laboratory accredited in the ASCLD/LAB-International program, worldwide. The accreditation consisted of a very comprehensive assessment in which every aspect of the laboratory's operation, to include the Crime Scene Unit, and was carefully reviewed to include its management practices, evidence handling procedures, and laboratory security procedures.

The continued effort to eliminate an increase in violent crime includes the Indianapolis-Marion County Forensic Services Agency as an integral element within the various criminal justice and public safety agencies of Marion County and the City of Indianapolis. The reduction in violent crime continues to be an issue that several Marion County and City of Indianapolis government entities have attempted to address over the past several years, with 2013 being no different. The Indianapolis-Marion County Forensic Services Agency is a vital participant in the Criminal Justice System. The laboratory continues to pursue the goal of reducing the amount of time between submissions for requests of analysis to the point of case completion to a maximum of six weeks in all forensic disciplines.

A percentage of the success in reducing previous years' backlogs in various forensic disciplines within the laboratory is due to federal grant funds awarded by NIJ in prior years. If awarded, this project will continue to improve efficiency and assist in backlog reduction in our Biology Unit. The I-MCFSA met requirements, from local government, to reduce approximately 5% of the operating budget, each year, for the previous six years. The lab is currently operating on a budget that was in place in 2007. All overtime funds, the majority of costs associated with training, along with a significant reduction in supplies, equipment, and other 'services' were cut from the budget. These 'services' include maintenance agreements and licensing fees associated with

software, in addition to the purchase of computers and analytical software programs. The budgetary challenges we face directly impact the timely analysis of forensic evidence. If awarded, funding will assist in providing the services and training needed, as well as assist in allowing more time for analysts to complete casework and the supplies to assist with analysis. This award will be specifically used for the following goals:

1. Reducing the forensic Biology/DNA case backlog.
2. Increase and maintain the capacity and capabilities of the Biology Unit casework.
3. Maintain continuing education for laboratory employees as it pertains to the Biology Unit and to complete the external DNA audit.

With funding, the laboratory expects to analyze at least 472 forensic biology and DNA cases (92 with overtime and supplies and 360 with an additional analyst). This grant award will greatly assist the laboratory as we continue to strive for a six week turnaround time for all laboratory cases, to include Biology (Serology/DNA) casework.

[Return to Page 1](#)

FY13 Recipient Name: Johnson County (KS)

Award Number: 2013-DN-BX-0039

Award Amount: \$350,460

Abstract: The Johnson County Sheriff's Office Criminalistics Laboratory (JCCL) is the agency responsible for analyzing evidentiary material associated with criminal investigations for all local law enforcement agencies and medical examiners within the county of Johnson in Kansas. The Biology section of the laboratory performs STR and Y-STR DNA analysis methods on forensic casework samples. All CODIS eligible DNA profiles generated by JCCL are uploaded into NDIS. The Biology section of the Johnson County Sheriff's Office Criminalistics Laboratory (JCCL) consists of seven fully trained Forensic Scientists and two Forensic Scientists in training capable of performing biological screening and DNA analyses. The Biology section supervisor/DNA Technical Leader spends the majority of time performing duties other than casework. In 2009, the request for services in the Biology section reached a peak. There was a significant upward trend in requests for biology screening and DNA analysis services in prior years. However, the incoming requests were greater than our output capacity. This resulted in increases in case backlogs and turnaround times. The biology and DNA submissions were increasing by approximately 1,000 requests per year due to several factors: advances in DNA technology, increased sensitivity of detection, prevalence of "touch" DNA, and the "CSI effect". In 2010, the JCCL implemented new DNA submission guidelines for the following reasons: better management of the supply line of evidence coming from our customers and enforcement of the standards for evidence acceptance. This alone had a significant impact on reducing the backlog and turnaround time because the number of submissions declined rapidly by the end of 2011.

The number of biology items examined steadily increased from 2006 through 2008. In 2009, the number of biology items examined decreased due to the resignation of one fully trained (grant funded) scientist and the training of two new Forensic Scientists. In 2010, productivity bounced back upward due to the grant funding for additional staff (up to three FTEs), automation, and instrument upgrades. Projections for 2013 indicate the Biology section's output capacity to be approximately 1,800 items/year for biology screening and approximately 2,100 DNA

samples/year. This level of productivity closely mirrors the number of evidence submissions over the past two years for the Biology section. The Federal funding from this award will be used for the following goal and objectives:

Goal:

1. Retain three fully trained Forensic Scientists in the Biology section with this grant funding. This funding will be used to pay the salary and benefits only for these three positions.

Objectives:

1. Maintain or increase current productivity levels in biology screening and DNA analysis.
2. Maintain or reduce the biology screening and DNA item backlogs and turnaround times.
3. Focus on reducing part I UCR violent crime DNA backlogs.

The JCCL can expect to reduce the DNA backlog by at least 243 cases and the biology processing backlog by 243 cases with funding of these three positions for 70 weeks. Performance measurement data will be collected and reported primarily with data obtained from the JCCL LIMS.

[Return to Page 1](#)

FY13 Recipient Name: Kansas Bureau of Investigation

Award Number: 2013-DN-BX-0026

Award Amount: \$148,978

Abstract: The Kansas Bureau of Investigation (KBI) Forensic Laboratory is the agency that is responsible for the analysis of evidentiary samples from possible crimes for all state and local law enforcement agencies and medical examiners offices within the state of Kansas. The KBI has four laboratories within the system, three of which conduct DNA testing. The three laboratories conducting DNA testing are Great Bend (West Region Laboratory), Topeka (headquarters), and Kansas City. The KBI laboratory in Topeka also houses the Databank Laboratory.

The KBI Biology sections of the Forensic Laboratory have experienced turnover of qualified DNA scientists, resulting in only 2 qualified DNA scientists at the Topeka Laboratory, one of whom is a supervisor. All three casework laboratories are facing significant backlogs of screening and DNA cases. Seven new scientists have been added to the staff in the Topeka Laboratory. Federal funding from this award will be used for the following goals:

1. A Forensic Scientist II to train and conduct screening analysis of cases in the Kansas City Laboratory and a part-time Laboratory Technician for the Great Bend laboratory.
2. Utilize existing lab benches to create shakedown area for small items due to eight scientists using two existing shakedown rooms. The purchase of three bench mounted crime lites for existing lab benches would increase shakedown area for small items.
3. Provide training and the required continuing education for some of the analysts.
4. Place CD duplicators at each of the laboratories to make copies of CD's needed for case files and Discovery Orders.
5. Replace an aging laptop computer in the Kansas City laboratory and purchase a

computer for the Laboratory Technician use in the Great Bend Laboratory, as well as software for both computers.

[Return to Page 1](#)

FY13 Recipient Name: Sedgwick County Regional Forensic Science Center (KS)

Award Number: 2013-DN-BX-0038

Award Amount: \$100,000

Abstract: The Sedgwick County Regional Forensic Science Center is an independent local government agency that serves as the Crime Laboratory for all Sedgwick County, Kansas Law Enforcement agencies. The Section has experienced increased caseload in recent years as DNA technology has emerged as a prevalent tool in adjudication of violent crime. Since 2001, the Biology/DNA Section has seen a three-fold increase in caseload, and the number of exhibits per case has also dramatically risen. In the last decade, the Center currently acquired two genetic analyzers to generate DNA profiles. However, operating systems driving the instrument computers and the GeneMapper software [GMID v3.2] used to analyze data are antiquated when measured against available state-of-the-art technology. Further, the operating system required by the existing data analysis version [GMID v 3.2] is no longer supported by Microsoft and does not meet the county standard for machine networking. The 3130 genetic analyzers, with these technological limitations, will not accommodate the new 6-dye chemistries. This configuration allows for the analysis of additional loci, as will be mandated by the FBI in the near future, and will be inevitable if Sedgwick County wishes for continued participation in the CODIS database.

This program is an acquisition program to allow the RFSC to upgrade the genetic analyzer hardware and software components and to retrofit the two genetic analyzers to allow utilization of the 6-dye chemistries. The purchase acquisition will follow standard Sedgwick County purchasing policies. Funding of this equipment acquisition program will allow the RFSC to maintain the current level of forensic services and continue to seamlessly participate in the CODIS database.

[Return to Page 1](#)

FY13 Recipient Name: Commonwealth of Kentucky

Award Number: 2013-DN-BX-0087

Award Amount: \$664,878

Abstract: The Kentucky State Police Forensic Laboratories (KSPFL) has continued to provide DNA analysis to the Commonwealth of Kentucky since 1989. During this period of 24 years, many technological advances have occurred in DNA analysis. Along with these technological advances, procedural changes have been implemented within the KSPFL to accommodate the ever-advancing science of DNA analysis. First, current evaluations have identified that the casework section is in need of additional high-throughput capillary electrophoresis instruments. Second is a lack of additional analytical time dedicated to processing cases in the casework section. Submissions that request DNA analysis are increasing and are being requested in a wider variety of case types. This trend leads to larger backlogs and longer turnaround times (TAT). Third is a continued need to purchase reagents utilized in DNA analysis in both the casework and database sections. Fourth, analysts need to attend workshops and training to stay

abreast of new advances and techniques in the forensic biology field as the topics relate to both casework and database.

By providing high-throughput procedures, overtime hours, supplies, and training opportunities, the Kentucky State Police Forensic Laboratory Casework and Database section anticipates that the TAT will decrease along with the number of backlogged cases.

[Return to Page 1](#)

FY13 Recipient Name: Louisiana State Police

Award Number: 2013-DN-BX-0082

Award Amount: \$1,551,210

Abstract: Louisiana has six active accredited crime laboratories at this submission that are currently performing DNA analysis: the Louisiana State Police Crime Laboratory (LSPCL), Jefferson Parish Sheriff's Office Regional DNA Laboratory (JPSO), North Louisiana Criminalistics Laboratory (NLCL), Acadiana Crime Laboratory (ACL), Southwest Louisiana Crime Laboratory (SWCL), and St. Tammany Parish Coroner's Office (STPCO). All six labs are fully accredited and maintain their individual accreditation. Each lab undergoes a stringent external audit every two years to maintain their accreditation. All six labs are equipped and currently perform forensic DNA casework. All DNA analyses performed under this program are maintained in each respective lab as mandated by the federal privacy regulations. The LSPCL is the only lab that uploads all eligible DNA profiles into NDIS. All labs participating in this grant solicitation send their eligible profiles to LSPCL CODIS Unit for upload into the NDIS system. The entire state of Louisiana and all of the crime labs within it are facing stricter budgets. This could potentially reduce funding for staff, supplies, equipment, needed support contracts and valuable training. Although backlogs of DNA cases have decreased, backlogs of forensic DNA cases in Louisiana still exist. Additionally, according to the UCR 2011 statistics, Louisiana remains one of the highest states in violent crimes per 100,000 inhabitants. To provide the maximum assistance to the crime fighting agencies, Louisiana crime laboratories must maintain and exceed their current level of funding support. The goals of the projects funded by this grant are:

1. Reduce or maintain forensic and database DNA case/sample turnaround time.
2. Increase the throughput of current public DNA laboratories.
3. Reduce forensic and database DNA backlogged cases,
4. Increase knowledge of staff in current and future technologies to enhance the capabilities of the laboratories.

Adding additional analysts will increase a laboratory's capacity and decrease the time to completion of both casework samples and database samples. Likewise, technicians allow for the less technical duties to be completed by staff who can be readily trained to screen evidence and complete quality control duties. This frees DNA analysts to focus on the steps of DNA analysis and interpretation, which requires a more experienced analyst. By applying the analysts' time to casework, a higher productivity is obtained and hence the forensic case turnaround time is reduced and the backlog is attacked.

Continuing education is critical to maintaining a high level of quality of DNA analysis. Training is essential in fully equipping the DNA analysts to stay abreast of current technologies and practices and to perform at the highest level possible. Providing additional equipment, supplies, and replacing aging equipment will allow these agencies to increase their capacity and decrease the backlog allows the laboratories to become poised to complete the number of requests that are submitted in a timely fashion. The ultimate goal is for all laboratories within the State of Louisiana to be providing real-time support to investigating agencies. As a State we expect there to be a decrease in the laboratory backlogs, a decrease in sample turnaround times, and a higher laboratory throughput to better service the law enforcement agencies.

In the 2013 solicitation allocation table, the state of Louisiana is estimated to receive an aggregate amount of \$1,551,210. It is our intent to share these funds corporately among the six accredited public laboratories performing DNA analysis in Louisiana. Our anticipated breakdown is as follows:

- Louisiana State Police Crime Laboratory - \$704,398
- Jefferson Parish Sherriff's Office Regional DNA Lab - \$135,017
- North Louisiana Crime Laboratory - \$317,476
- Acadiana Criminalistics Laboratory - \$194,320
- Southwest Louisiana Criminalistics Laboratory - \$100,000
- St. Tammany Parish Coroner's Office - \$100,000.

[Return to Page 1](#)

FY13 Recipient Name: City of Boston (MA)

Award Number: 2013-DN-BX-0027

Award Amount: \$311,809

Abstract: As part of the Boston Police Department (BPD) Crime Laboratory's overall plan to meet its goals and objectives outlined in this application, it is critical for the lab to continue utilizing the funds provided by the National Institute of Justice for the purpose of supporting the work being done by the Criminalist and Forensic Technician positions, thus allowing us to meet the caseload demands in 2013 and work to further reduce the backlog of cases. The ability of the department to maintain these positions will aid the BPD in achieving the goals of this program: reducing the backlog of forensic biology cases, maintaining high quality forensic services, and increasing the capacity of the lab.

The BPD continues to utilize funds from prior DNA Backlog Reduction programs to move forward with the implementation of a Laboratory Information Management System (LIMS), including a custom data-tracking DNA module, as a significant step towards the enhancement of overall productivity in casework and processing of backlog cases. The BPD would like to utilize funds from this FY13 application to support a 1-year maintenance contract that would cover the costs associated with the service and upgrades needed for the LIMS.

Lastly, the BPD plans to utilize the funds made available through this application to further support the growing demands of the continuing education needs of the DNA support staff by providing reimbursement for costs associated with registration and travel to specifically identified trainings.

[Return to Page 1](#)

FY13 Recipient Name: Massachusetts State Police

Award Number: 2013-DN-BX-0019

Award Amount: \$1,405,618

Abstract: The Massachusetts State Police Forensic Services Group (FSG) is the agency responsible for analyzing evidentiary material associated with criminal investigations for all state and local law enforcement agencies within the state of Massachusetts, with the exception of the city of Boston. The city of Boston has a forensic laboratory to address the needs of the city. The FSG has several satellite laboratories but all DNA analysis is conducted at the main laboratory in Maynard, MA. The FSG is the agency responsible for performing DNA analysis on all convicted offender samples for the state. The FSG is responsible for storing and maintaining the DNA profiles in SDIS. The FSG continues to face budgetary constraints and the federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Update critical equipment in the DNA Unit.
3. Purchase supplies.
4. Maintain and improve current laboratory systems.
5. Provide required continuing education to all DNA analysts.

The FSG expects to reduce the DNA caseworking backlog by outsourcing 484 samples and by 105 samples completed by in house testing by the end of the grant period.

[Return to Page 1](#)

FY13 Recipient Name: Anne Arundel County, Maryland

Award Number: 2013-DN-BX-0052

Award Amount: \$158,065

Abstract: A grant award under the FY13 DNA Backlog Reduction Program would support ongoing capacity increases in the Forensic Biology/DNA Unit of the Anne Arundel County Police Department Crime Laboratory. Enhanced productivity (case output) and efficiency is expected to reduce the existing case backlog thereby decreasing the overall turnaround times for newly submitted Forensic Biology cases through the following objectives:

1. Hire an 18-month full-time W-2 temporary grant-funded Biology/DNA analyst via salary funding to perform independent DNA casework analyses.
2. Retention of an 18-month full-time W2 temporary grant-funded Biology/DNA laboratory technician via salary funding. This lab tech will assist the Biology Unit with various lab duties (Quality Assurance/Quality Control duties, general housekeeping, reagent preparation, administrative duties, etc.) which will allow analysts to devote more time to case working duties resulting in an increase in case output.
3. Funding for overtime (approximately 625 hours over the award period) for the DNA unit.
4. Purchase of laboratory consumables (pipette tips, etc.) for the DNA unit.

First, this award would fund the (W-2 FTE Chemist I under temporary County contract) forensic analyst to conduct in-house Biology/DNA casework. This individual will be directly involved in the handling and analysis of forensic cases submitted to the Biology/DNA Unit. As an NDIS-

participating laboratory, the individual is also responsible for the data entry and/or reviewing of eligible DNA profile data from that casework into CODIS as applicable. The scope of this position also involves peer reviewing Unit case files, participation in quality assurance and control duties both in the Unit- and Lab-wide, as needed, and providing expert witness testimony. Other duties as assigned may also be performed.

Secondly, this award would provide funding to retain the Biology/DNA lab tech (W-2 FTE under temporary County contract) to assist the Biology Unit with various lab duties. The support function provided by this position aids in reducing the backlog. The essential tasks performed by the lab technician, such as QA/QC duties, general housekeeping, reagent preparation and administrative tasks, are duties that cannot be accomplished by the analysts on an on-going basis without negatively impacting case turnaround times and throughput. As such, this position allows analysts to devote more time to case working duties and backlog reduction.

Third, funding for approximately 625 of overtime hours for the DNA unit would assist in backlog reduction in that at least 80 additional cases would be completed over the award period. A total of 625 hours of overtime would correlate to about 9 hours per analyst per month for the award period. Lastly, some laboratory consumables, such as pipette tips, will be needed for the DNA unit to perform DNA analysis duties. An additional grant funded position as well as overtime hours for the DNA unit would result in the need for additional consumables.

These requests are critical to addressing the current case submissions levels for the Unit to meet or exceed adequate turnaround times for trial date deadlines and to manage the backlog. In the absence of this analyst position, lab tech position, as well as overtime hours, the backlog will spike severely, resulting in missed court dates within a very short period of time (<6mos). The position is expected to result in more than 50% of the Unit's case output in one year (>240 cases), with additional case output anticipated with the overtime hours available to the DNA unit. As such, the backlog can be expected to vastly decrease over the award period.

[Return to Page 1](#)

FY13 Recipient Name: Baltimore County (MD)

Award Number: 2013-DN-BX-0116

Award Amount: \$253,347

Abstract: The Baltimore County Police Department - Forensic Services Section's (BCoPD-FSS) Biology Unit is a unit of the local government of Baltimore County, Maryland, that is responsible for analyzing evidentiary materials associated with criminal investigations conducted by the Baltimore County Police Department. The BCoPD maintains a memorandum of understanding with the Maryland State Police Department for CODIS entry.

Budgetary constraints preclude the BCoPD from increasing the capacity and efficiency of the DNA laboratory. Federal funding under this award will be used to: (1) increase the capacity and efficiency of the laboratory through the purchase of upgraded and additional equipment, validation services and a maintenance contract, and (2) provide continuing education for all analysts in the laboratory.

[Return to Page 1](#)

FY13 Recipient Name: City of Baltimore (MD)

Award Number: 2013-DN-BX-0108

Award Amount: \$523,748

Abstract: The Baltimore Police Department Crime Laboratory (BPD-CL) is the agency section responsible for analyzing material evidence associated with criminal investigations for all local law enforcement agencies within the City of Baltimore, performing, among other disciplines, serology screening with autosomal and YSTR DNA casework analysis. The City of Baltimore is facing budgetary constraints and new State licensing requirements through the Department of Health and Mental Hygiene. This will increase the documentation and regulation required for all sample analysis. The Federal funding from this award will be used for the following goals:

1. Reduce the forensic DNA case backlog through analyst overtime, maintaining grant-funded Criminalists, and outsourcing Serology and DNA casework.
2. Sustain laboratory capacity (storage-, record- and throughput-wise) by purchasing equipment (statistical and tracking software training, scanners) and by retaining one evidence technician and hiring another.
3. Provide the FBI QAS recommended outside continuing education for a subset of analysts.

The BPD-CL can expect to reduce the DNA case backlog by at least 461 cases (446 in-house overtime technical and administrative review only and 15 outsourced) by the end of the award period. The turnaround time for new cases is expected to be reduced as the backlog is further reduced.

[Return to Page 1](#)

FY13 Recipient Name: Maryland State Police

Award Number: 2013-DN-BX-0061

Award Amount: \$407,306

Abstract: The Maryland State Police Forensic Sciences Division (MSP-FSD) requests funds under the 2013 DNA Backlog Reduction Program with the goal of analyzing DNA casework and DNA database samples in an effort to continue to reduce existing backlogs and prevent future backlog buildup, while at the same time improving turnaround time.

MSP-FSD has been very successful in the implementation of a long-term project to control, significantly reduce and eventually eliminate the DNA casework backlog. This project is based on an approach that combines the use of in-house and agency direct outsourcing of casework as well as a tier approach and other streamlining techniques to improve the in-house operations. Since February 2008, the casework backlog has decreased 86% from a high of 568 to a low of 136 in December of 2012. In addition, since the start of direct outsourcing in December of 2009, the backlog has decreased at a faster rate. By the end of 2009, the backlog was reduced by 16%, and within one more year, a 51% backlog reduction was observed at the end of 2010. In 2011, the backlog was reduced by 19%, and in 2012, another 6.5% decrease was achieved. MSP-FSD's goal is to keep utilizing these techniques and, therefore, the requested funds are geared towards continuing this proven to be successful method of addressing the casework backlog.

Starting in 2011 and concluding in January 2012, MSP-FSD has been able to bring the analysis of all database samples in-house. This was accomplished by utilizing previously allocated federal funds. While an existing backlog of 23,000 DNA Database samples was eliminated in 2007, the need for monitoring every step of the database operations so that a significant new backlog does not emerge is very prominent. Therefore, funds are requested to support the in-house analysis of DNA Database samples and to prevent an accumulation of a significant backlog. The federal funding from this award will be used for the following specific goals:

- Goal 1: Reduce the backlog of forensic biology/DNA cases.
- Goal 2: Support in-house analysis of DNA database samples and prevent accumulation of a backlog.
- Goal 3: Maintain current laboratory capabilities and improve operations with purchase of new hardware.
- Goal 4: Provide required continuing education.

MSP-FSD expects to analyze casework and DNA Database samples by outsourcing 125 DNA cases, performing in-house analysis of approximately 400 DNA cases, and performing in-house analysis of 3,000 DNA Database samples.

[Return to Page 1](#)

FY13 Recipient Name: Montgomery County (MD)

Award Number: 2013-DN-BX-0045

Award Amount: \$100,000

Abstract: The Montgomery County Police Crime Laboratory, Forensic Biology Unit (MCPCL FBU) is responsible for analyzing evidential material associated with criminal investigations handled by the Montgomery County Police Department. As a courtesy, the MCPCL FBU performs the same analyses on evidential material for the following other agencies in Montgomery County: Takoma Park Police Department, Gaithersburg City Police Department, Rockville City Police Department, Montgomery County Park Police Department and Metro Transit Police Department. The MCPCL FBU consists of 5 full-time, fully trained analysts, a Technical Leader and one forensic specialist. The Federal funding from this award will be used for the following goal:

1. Reduce the forensic DNA case backlog by increasing the DNA sample throughput and reducing the turnaround time.

This goal will be achieved by upgrading the typing instrumentation in the MCPCL FBU from a 3130 to 3500 Genetic Analyzer. This instrumentation upgrade will increase the DNA sample throughput by moving from our current 4-cap 3130 to an 8-cap 3500, which doubles the numbers of samples typed per injection. The 3500 is also quicker, which will reduce the time per injection by approximately 10 minutes. These two upgrades will assist in meeting our goal of reducing the forensic DNA case backlog by increasing the samples to DNA while reducing the processing time.

[Return to Page 1](#)

FY13 Recipient Name: Prince George's County (MD)

Award Number: 2013-DN-BX-0112

Award Amount: \$305,411

Abstract: The Prince George's County DNA Laboratory is an ASCLD/LAB-accredited laboratory (Cert. #353) that serves a population of approximately 881,138 individuals (according to the Census Bureau data). The laboratory is responsible for receiving, analyzing, reporting and storing evidence received from any submitted forensic casework in the county. The Laboratory staff size was recently reduced from 5 analysts to 4. This has brought about an increase in the workload of the remaining analysts. Personnel reduction, coupled with the County government going through a severe shortfall in funds, has further restricted funds for the Laboratory and has impacted our ability to maintain our previous year's output. While the Laboratory has improved on streamlining the submission policy, staff shortages of analysts and technicians have increased workload for the remaining personnel, including tasks outside of casework analysis such as filing, preparing reagents, researching cases, screening cases, monitoring and maintaining instruments, as well as retrieving evidence directly from evidence storage.

With all of these issues and the possibility of a next round of furloughs as a result of the sequestration, the requested federal funding will be used to achieve the following goals:

- Goal 1: Reduce the backlog of cases.
- Goal 2: Reduce in-house analysis turnaround time.
- Goal 3: Secure DNA case folders.

Once implemented, the Prince George's County DNA Laboratory will get closer to the goal of a backlog reduction by working approximately 77 cases.

[Return to Page 1](#)

FY13 Recipient Name: Maine State Police

Award Number: 2013-DN-BX-0023

Award Amount: \$250,000

Abstract: The Maine State Police Crime Laboratory is the state agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies within the State of Maine. We are the only full-service laboratory in Maine. Maine State law requires our state laboratory to be responsible for conducting DNA analysis on DNA database samples collected from all convicted felony and some misdemeanor offenders in the State of Maine; the Maine State Police Crime Laboratory is responsible for storing and maintaining the resultant profiles in the Maine DNA Data Bank.

The Maine State Police Crime Laboratory faces budgetary constraints, which limits our ability to hire additional state-funded staff. However, in the past few years, we have been able to significantly reduce casework backlogs with grant-funded analysts. We desire to continue with this success, which would not be possible without the grant funds. We propose to support the continued salary of grant-funded analysts.

Additionally, we have made huge strides in database backlog reduction. With DNA Backlog Reduction Program funds we have outsourced our entire database backlog and have funds remaining to outsource new samples through most of this year. We have also built capacity to do in-house database testing once outsourcing funds are exhausted. We recently completed a renovation project to create a separate CODIS area in the lab. We believe that current state-

funded staff will be able to keep up with new samples as outsource funds run out. Whereas we have satisfied the needs of our databasing program, we seek to use funds to support casework supplies and external DNA casework and database audits.

Therefore, the Federal funding from the FY13 award would be used for the following goals:

1. Continue casework capacity enhancement of the laboratory by continuing to employ one full-time DNA analyst and one part-time DNA analyst at 28 hours per week.
2. Support casework capacity and backlog reduction with the purchase of Cofiler and Profiler DNA supplies
3. Support capacity enhancement efforts with a contract for external inspections of our casework and database DNA programs.

The Maine State Police Crime Laboratory can expect to reduce the DNA case backlog by at least 255 cases by the end of the award period. We also expect to be able to purchase supplies to support 400 cases.

[Return to Page 1](#)

FY13 Recipient Name: State of Michigan

Award Number: 2013-DN-BX-0033

Award Amount: \$2,648,903

Abstract: The Michigan State Police requests FY 2013 Forensic DNA Backlog Reduction Program funding to assist the Forensic Science Division (FSD) in reducing the statewide backlog of DNA casework awaiting analysis and to increase the capacity of its DNA and Database laboratories. The requested funding will be used to: (1) continue payroll support for laboratory personnel; (2) provide limited overtime for backlog reduction; (3) provide continuing education to laboratory personnel; (4) purchase DNA database collection kits; (5) outsourcing of case work; (6) purchase one 3500 genetic analyzer; and (7) upgrade computer software.

DNA analysis conducted under this program will be maintained pursuant to all applicable federal privacy requirements. All eligible profiles obtained with funding from this program will be entered into the Combined DNA Index System (CODIS) and uploaded to the National DNA Index System (NDIS), when applicable. Participating laboratories will follow the NDIS DNA Data Acceptance Standards for all profiles uploaded to NDIS.

[Return to Page 1](#)

FY13 Recipient Name: Hennepin County (MN)

Award Number: 2013-DN-BX-0041

Award Amount: \$100,000

Abstract: The Hennepin County Sheriff's Office Crime Lab Unit (HCSO-CLU) provides forensic science services to over 35 local, state, and federal law enforcement agencies in Hennepin County, Minnesota (population ~1.1 million).

Previous federal awards have allowed the HCSO-CLU to create and fund a full-time DNA analyst position. The lab intends to use funding from the FY 2013 DNA Backlog Program for continued salary support for one forensic DNA scientist. The HCSO Lab intends to continue the

progress that has been made in recent years on backlog reduction, enhanced DNA processing capacity and in the reduction of case completion cycles. In the past several years, the lab has made significant increases in analyst productivity by incorporating automated extraction and liquid handling capabilities, using 96 well-plate formats, streamlining workflow processes and increasing thermocycling and CE capacity.

Given the productivity gains through process improvements and automation, the lab has determined at this stage the most effective use of these funds will be toward personnel support. Continuing the current level of staffing is vital to maintaining the labs ability to meet the increasing demand for DNA testing. Continuing education is a fundamental aspect of forensic science and with this award the HCSO intends to provide educational opportunities to two DNA analysts by attending pertinent scientific meetings and/or conferences. Because of shrinking budgets, continuing education is one of the first items cut by cash strapped departments. Although only a small percentage of our analysts will be able to attend professional conferences, the lab feels very strongly about benefits obtained from professional meetings.

[Return to Page 1](#)

FY13 Recipient Name: Minnesota Department of Public Safety

Award Number: 2013-DN-BX-0032

Award Amount: \$648,725

Abstract: The Bureau of Criminal Apprehension, Forensic Science Service (BCA FSS) is part of the Minnesota Department of Public Safety, providing forensic services to over 500 local law enforcement agencies within the state, as well as State and Federal agencies. The BCA FSS is also the laboratory responsible for receiving and analyzing all convicted offender samples and maintaining the DNA database.

Our agency experienced a 12% increase in the number of casework submissions requesting DNA analysis during 2012, continuing a trend seen over the past three years. State funding for the Lab has been flat over the past several years and there is no pending state legislation that would increase resources to be used in the DNA discipline.

The proposed 2013 BCA FSS DNA Backlog Reduction program will continue to utilize the same overall strategies used in our projects in previous grant cycles. The program will seek to increase the number of hours that trained DNA scientists are available to work on backlogged cases by providing funding for overtime and to fund a support position whose job duties include reagent preparation, quality control checks, and participation in validation studies. We intend to use grant funding to either increase our capacity in areas identified as bottlenecks by purchasing instrumentation that allows for automation in these areas, or maintain our current capacity by utilizing grant funds to purchase DNA analysis supplies and service contracts to ensure instrumentation is maintained and serviced in a prompt manner for both casework and database samples. Finally, we are seeking to improve the quality of examination by providing funding for educational opportunities for scientific staff.

[Return to Page 1](#)

FY13 Recipient Name: Missouri Board of Police Commissioners (MO)

Award Number: 2013-DN-BX-0036

Award Amount: \$412,761

Abstract: The Kansas City Police Crime Laboratory (KCPCL) has experienced tremendous success with prior NIJ DNA backlog reduction grants, and will no doubt continue this success with the FY2013 Forensic DNA Backlog Reduction Program grant. The primary goal for the use of funding provided by this grant is to reduce the turnaround time (TAT) from biological screening request to the completion of DNA testing for VIOLENT CRIMES cases to less than 120 days.

This goal will be met by continuing to increase the efficiency of the Biology section with the objectives of retaining grant-funded employees previously hired and trained and to hire an additional employee with a focus on biological screening. An additional goal tied into the reduction of turnaround time for violent crimes is to continue to decrease the backlog of all cases awaiting Biological/DNA analysis.

These goals will be met by continuing the trend started in 2011, in which a rotational system was implemented in which every step of the DNA process was being performed on a weekly basis by different analysts. Based upon the rotational system and the prioritization of violent crimes, the current turnaround time (4/1/13) for all crimes is 193 days (Violent: 157 days; and Non-Violent: 229 days). The backlog for biological screening/DNA cases was reduced by over 30% for the second consecutive year in 2012.

The current bottlenecks in the DNA rotational system occur at the liquid handling steps: quantitation, dilution and amplification, while the other significant bottleneck is the review process. Plans to procure an automated liquid handler should aid in the efficiency of those steps, while the biological screening and review bottlenecks will require additional cross training of previously existing employees. Additionally, the Biology section plans to use funding to purchase new analysis software compatible with required changes in amplification and detection technologies and the expanded core CODIS loci.

[*Return to Page 1*](#)

FY13 Recipient Name: Missouri State Highway Patrol (MO)

Award Number: 2013-DN-BX-0017

Award Amount: \$618,453

Abstract: The Missouri State Highway Patrol (MSHP) Crime Laboratory provides PCR-STR DNA analysis on samples from crime scene evidence without cost to all law enforcement agencies within Missouri. The need for DNA analysis continues to increase at a rate greater than present funding and resources support. Our goal is to improve turnaround time, decrease backlogs and increase throughput.

The MSHP Crime Laboratory's portion of Missouri available funds for 2012 for Part A. was calculated to be \$585,393. This amount is based on the Highway Patrol's portion (9,809 = 36.8%) of the State's 26,623 UCR, Part 1 violent crimes reported to the FBI in 2011. As recommended by the grant solicitation, the funding was adjusted to allow St. Charles County Sheriff's Department to apply for the minimum \$100,000. In an agreement with the Missouri

Association of Crime Laboratory Directors, St. Charles Co. would apply for \$85,000. Accordingly, the Missouri State Highway Patrol Crime Laboratory portion of the \$1,588,839 was adjusted to \$568,453. When we add the \$50,000 for databasing, we will be applying for \$618,453.

The Laboratory will use the awarded funds to purchase DNA reagents, supplies and amplification kits, cover our annual maintenance agreements for 11 instruments and STaCS DNA, fund overtime (to include benefits) for sixteen (16) criminalists, and fund training and travel to various conferences and workshops. It is expected that once implemented, these improvements will increase throughput (samples per analyst per month), decrease backlogs, and reduce average turnaround.

[Return to Page 1](#)

FY13 Recipient Name: Saint Charles County (MO)

Award Number: 2013-DN-BX-0003

Award Amount: \$85,000

Abstract: The St. Charles County Sheriff's Department Criminalistics Laboratory (SCCSDCL) provides forensic DNA analysis services to the law enforcement community of St. Charles County Missouri. The SCCSDCL has seen a proliferation of DNA cases submitted as DNA evidence continues to be more prevalent and valuable to criminal investigators. As a result, the SCCSDCL is committed to using the most efficient and accurate equipment and technologies available to analyze the varied forensic DNA samples submitted. Funding analyst overtime is a proven way for the SCCSDCL to reduce its DNA backlog and improve the forensic DNA testing it provides.

The SCCSDCL will use its portion (\$85,000) of the FY13 Forensic DNA Backlog Reduction Program to enhance its DNA testing capacity and reduce its DNA backlog by providing overtime for analysts and purchasing DNA testing supplies. The SCCSDCL anticipates working 300 additional DNA cases during the program period as a result of program funding. The two major goals of this program are:

1. Reduce the DNA backlog by 10% through analyst overtime and the purchase of supplies.
2. Reduce the turnaround time to less than 175 days by funding analyst overtime.

Achievement of these goals will increase the overall productivity and efficiency of the SCCSDCL, positively impacting the investigations and prosecutions of all laboratory cases, especially those with DNA evidence. This program will also strengthen the SCCSDCL's commitment to the law enforcement agencies it serves.

[Return to Page 1](#)

FY13 Recipient Name: St. Louis County (MO)

Award Number: 2013-DN-BX-0006

Award Amount: \$177,757

Abstract: An important objective of the St. Louis County Police Crime Laboratory is to provide more efficient processing to reduce or at least maintain turnaround time and increase the number of forensic DNA samples processed. The Laboratory serves more than one million citizens and

provides services to the St. Louis County Police Department, as well as 90 municipalities, 56 of which have their own police departments.

The Biology/DNA Unit within the Crime Laboratory has seen a significant increase in the number of samples submitted for biological screening and DNA analysis each year due to the success of obtaining profiles from samples which would previously have not been submitted to the laboratory. Grant funding provided by the 2013 DNA Backlog Reduction Program will be used to maintain two full-time biologist positions and a DNA technician position. By maintaining the two biologists and DNA technician with grant funding, the DNA analysts will be able to work full-time performing DNA analysis. The remainder of the funds will be used to purchase an additional Thermal Cycler to alleviate a bottleneck in the amplification step of the DNA process.

The St. Louis County Crime Laboratory expects to complete approximately 456 additional cases over the award period of 18 months than would be possible without grant funding. The St. Louis County Police Crime Laboratory expects to increase the number of samples analyzed per analyst per month to at least 35 samples.

[Return to Page 1](#)

FY13 Recipient Name: St. Louis Metropolitan Police Department (MO)

Award Number: 2013-DN-BX-0005

Award Amount: \$344,868

Abstract: The St. Louis Metropolitan Police Department Crime Laboratory has a backlog of cases at the DNA analysis level that could be partially alleviated by continuing to hire part- and full-time DNA analysts and funding overtime for department- and grant-funded DNA analysts. The SLMPD is requesting \$344,868 from the DNA Backlog Reduction Grant FY 2013, the money allocated to them from the total allocated to the state of Missouri. The overall goals and objectives of this program will be to reduce the number of untested forensic casework samples, to enter eligible profiles into CODIS and obtain hits, and to prosecute the suspects. This will be accomplished by continuing to hire 1 part-time and 3 full-time grant-funded employees and funding overtime for the department- and grant-funded DNA employees. By increasing throughput and creating a more efficient laboratory, it is expected that at least 344 cases will undergo biological screening; DNA analysis, where appropriate; upload of eligible profiles into CODIS, when obtained; and prosecution of suspects.

[Return to Page 1](#)

FY13 Recipient Name: Mississippi Department of Public Safety

Award Number: 2013-DN-BX-0120

Award Amount: \$524,838

Abstract: The Mississippi Crime Laboratory (MCL) faces the challenge of providing essential forensic services to the criminal justice system of the state in a time of reduced budgets and increasing crime. At the present time, all DNA analysis, are performed in the Jackson Laboratory. The regional laboratories receive evidence from agencies in their region and provide weekly courier service to the main lab for evidence requiring examinations not available at the branch lab. Conventional Serological Examinations have been added to the services provided by the three regional laboratories – the Meridian, Batesville and Gulf Coast laboratories. Currently

all DNA database samples are being outsourced using Federal funding for DNA database sample testing assistance. Because of space limitations and lack of equipment, in-house DNA database sample testing has not been possible in the MCL system. However, a new laboratory is under construction with adequate space planned for DNA database sample testing. The new laboratory is projected to be complete in the spring of 2014.

The primary goal of this project is to develop the capacity of the MCL DNA laboratory to analyze database samples in-house in the new laboratory scheduled to open in the spring of 2014. In order that the MCL Database Laboratory can become an operational reality, the capabilities of the laboratory must be enhanced by the acquisition, installation and validation of the instrumentation required to perform large-scale processing of database samples efficiently. A second goal is to provide the required continuing education for existing MCL DNA staff. Because there will necessarily be a significant time required for the database laboratory to become operational, the third goal will be to outsource database samples that are submitted before the in-house processing can begin.

[Return to Page 1](#)

FY13 Recipient Name: Montana Department of Justice

Award Number: 2013-DN-BX-0044

Award Amount: \$250,000

Abstract: The Montana Department of Justice Forensic Services Division (MT DOJ FSD) is the agency responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state of Montana. Montana Code Annotated 44-6-102 designates the MT DOJ FSD Laboratory to conduct analysis of DNA database samples collected from all convicted felons. Federal funding from this award will be used for the following goals:

1. Increase the efficiency of the laboratory by purchasing a second model 3500 Capillary Electrophoresis (CE) instrument.
2. Reduce the convicted offender sample backlogs and turnaround times by outsourcing the current backlog of convicted offender samples.
3. Provide an independent external audit of the DNA section to the FBI DNA Quality Assurance Standards in accordance with NIJ DNA Backlog Reduction Programmatic requirements for eligibility to receive federal funding.
4. Provide continuing education for five forensic scientists.

[Return to Page 1](#)

FY13 Recipient Name: City of Charlotte (NC)

Award Number: 2013-DN-BX-0040

Award Amount: \$289,371

Abstract: The Charlotte-Mecklenburg Police Department Crime Laboratory (CMPD) seeks \$289,371 in federal funding to maintain two current federally funded DNA support positions. The laboratory is growing, and with that growth is becoming an increase in demand for DNA. The funds from the grant will help to smooth the front end of requests, allowing the DNA analysts to work on their DNA cases.

The CMPD has a limited budget in the laboratory for personnel and, without this funding, would be unable to maintain these positions. With the success of DNA in helping to solve all cases – both violent and property crimes – the number of cases submitted to the laboratory for DNA testing has increased to a size that cannot be managed with the current number of city allotted positions. The additional staffing and requests have put a burden on the Property Control, which the Evidence Technician funded by past grants and which this grant has achieved to relieve. Under the FY 12 DNA Backlog Reduction grant, the crime lab tech was added to the biology section to help analysts with such tasks as making reagents, checking lab requests, and gathering information about cases that need to be processed for DNA.

A GeneMapper IDX full license and client licenses will allow the analysts to analyze their data and perform technical reviews at their desks instead of on the instrument. This will leave the 3130 computer open for runs. GeneMapper runs on Windows 7, so that software will need to be purchased. While the CMPD's network makes allowances for Windows 7 computers, all desktops are currently running Windows XP.

In addition, the CMPD would like to upgrade to the 6 dye software on the 3130, to prepare for the imminent future core CODIS loci that will need to be added for analysis. A new computer will be purchased that can accommodate the upgrade. And funds are being requested to cover the installation of this computer and upgrade.

To further explore options on the front end of analysis, the CMPD would like to purchase a crime lite with IR capability that will allow for more accurate testing of blood on dark clothing and allow semen stains to be found easier. In addition, lights will be purchased for the underlit screening rooms to allow for better photo documentation of evidence. Since the screener does most large pieces of evidence, it will allow the DNA analyst to have a more accurate picture of the original item.

[Return to Page 1](#)

FY13 Recipient Name: North Carolina Department of Justice

Award Number: 2013-DN-BX-0034

Award Amount: \$1,756,277

Abstract: The State Crime Laboratory-Raleigh is an ASCLD-LAB-accredited laboratory that provides DNA testing for a population of about 9,656,401 (2011 census estimate) people. The North Carolina State Bureau of Investigation (SBI) has been performing forensic DNA analyses for law enforcement agencies across the state since 1990. However, as the reliability and the reputation of the use of DNA analysis for forensic means increased, so did the demand for its use. In order to reduce the in-laboratory backlog and focus the laboratory's resources on those cases most needing attention, the SBI implemented a case acceptance policy on three different occasions. This policy limited the cases worked by the crime laboratory to only those cases which contained known blood standards from all individuals associated with the crime.

In 2004, the section began accepting no-suspect rape kits and, as additional staff was hired, expanded its no-suspect policy to include all cases except for misdemeanor property crimes. In 2005, the section switched from a gel-based platform to a capillary platform. This new platform was determined to be much more sensitive. As a result of this new sensitivity, the section began

to work “touch evidence.” As a result of the broader acceptance policy and ability to perform analysis on touch cases, the number of case submissions increased, as well as the number of DNA profiles entered into CODIS. In addition to performing DNA analysis on casework, the section created a DNA database as a result of the DNA Identification Act of 1994. State legislation required that blood samples from individuals that were convicted of serious crimes, (e.g., homicide, rape, sexual assault) were to be submitted to the laboratory for analysis. These DNA profiles were then uploaded into a database for comparison.

With the advent and maturation of the Combined DNA Indexing System (CODIS), forensic DNA analysis is increasingly being used as an investigative tool. The number of requests for analysis on all types of cases consistently outpaces the laboratory’s ability to work these cases. To meet this demand, the SBI has devoted, and continues to devote, additional personnel. Until December of 2002, there were ten analysts in the Forensic Biology Section that were certified in to perform either Body Fluid Identification or DNA analysis and five analysts certified as database analysts. In December of that year, the Attorney General began to push for additional analysts whose primary goal was to identify and work the thousands of untested rape kits that sat on the shelves of law enforcement agencies across North Carolina. His plan was to ask the North Carolina General Assembly for six additional DNA analysts each year for the next four years. The section was immediately granted six new positions that year.

In 2003, the section was allotted two sets of increases: 1) six additional DNA analysts to work on forensic casework, and 2) two additional DNA analysts and two database analysts whose job responsibility would be to assist with the increase in workload as a result of North Carolina becoming an all-felons state with regards to CODIS. Although the Forensic Biology section was given these increases in staff, the legislature did not provide funding for additional space. In 2004, the General Assembly approved an expansion for the Crime Laboratory, but due to overcrowding in the section, no additional personnel were allocated. In 2005, the Section broke ground for a \$5.1 million, five-story laboratory expansion and was allocated an additional six DNA analysts. In 2007, using funds from the 2005 DNA Capacity Enhancement Grant, this existing facility was renovated and finished with hoods, telephones, casework, etc. In 2010, the North Carolina legislature approved DNA samples to be collected upon arrest for certain violent felonies. As a result of this legislation, the section was given four DNA analyst positions and three processing assistants. In total, the Forensic Biology Section has 28 analysts involved in forensic casework and 16 individuals assigned as database analysts or support personnel.

As part of National Institute of Justice (NIJ) DNA Backlog Program grants, the Section worked numerous backlogged cases and obtained CODIS hits, thereby solving cases which would not have been solved had it not been for the funds provided by these grants. In 2011, with the assistance of grant money from NIJ, the Section completed 2431 jobs to reduce the on-hand backlog, entered 746 suspect DNA profiles into CODIS, entered 533 forensic unknown samples into CODIS and obtained 420 CODIS hits.

A negative consequence, however, is that the DNA program has become a victim of its own success. As more cases get solved solely as a result of DNA analysis, word spreads from officer to officer and agency to agency and case submissions have increased dramatically. This is particularly true with unsolved property crimes and those cases involving “touch DNA

evidence.” Therefore, in spite of grant money provided by NIJ, case backlogs have not decreased much but have increased over time. In calendar year 2008, there were 2557 jobs submitted to the Forensic Biology Section. That number increased to 3289 in 2009. In 2010, there were 3191 submissions. By comparison, section job completions rose from 1703 in 2008 to 2530 in 2009. In 2010, the section completed 2431 jobs. In 2011, the section received 3509 jobs and completed 1953.

In late 2010 and through 2011, the entire laboratory began the process of converting its documentation into an ISO format in preparation of its next accreditation, which will be based on ISO 17025 standards. In February 2011, the database began its collection of arrestee samples based on certain offenses. Based on the procedures for the expungement of these samples, it became necessary for additional staff to become involved in assisting in this area. In June 2011, legislation was passed that required all analysts to become certified in their respective disciplines within 18 months of becoming eligible. The first round of testing for certification was performed in December 2011. These three projects required thousands of man hours, and, with case input/output as seen above coupled with the loss of 8 analysts, pushed the section’s backlog from 1213 cases in the beginning of January 2011 to 2599 by the end of December 2011.

In 2012, the section completed much of the work for certification and ISO transition but at the cost of losing analysts and production numbers. In the last quarter of 2012, the section had 13 vacancies. The majority of these were from the case working unit. Senior management decided to reorganize the section by creating a Research and Development position as a part of the overall laboratory hierarchy, and appointed the section manager into this position. An acting manager was appointed in September 2012, and three supervisors were appointed, giving the total of 1 manager and 5 supervisors including the technical leader. The section was divided into 5 teams, 2 for case working, 2 for the database unit and 1 team under the technical leader. This reorganization revealed inefficiencies in case production, case flow and technology.

During this critical period, Quantifiler Duo and Identifiler Plus came on-line, adding a technology better suited for obtaining profiles from problematic samples. Laboratory management also contracted to complete a Lean Six Sigma (LSS) efficiency study for both the case working and database units to assist the new section management team. This study revealed the need to consolidate and reorganize by moving almost everyone in the section and realigning the common lab spaces in order to place them closer to their work. Unfortunately, the current layout of the building is segmented into individual suites and is not conducive to a team approach to casework and database work, as the LSS study has revealed. Based on the information gathered from the LSS study, one of the major goals of the 2012 grant (pursuant to a future grant adjustment) is to renovate lab space to create the necessary environment for case working and database efficiencies that will help speed up the elimination of the backlog. In addition, continued outsourcing of database samples will continue to draw down the backlog. The efficiencies already gained from the LSS study and from bringing in Quantifiler Duo and Identifiler Plus will allow the case working to make significant progress in the backlog. This will be enhanced by utilizing 2013 grant money for overtime and supplies. In addition, 1 additional QIAgility robot will be purchased, along with validation support. The acquisition of this robot will complete the third floor case working suite and allow a much needed expansion of lab area for case working.

[Return to Page 1](#)

FY13 Recipient Name: North Dakota

Award Number: 2013-DN-BX-0013

Award Amount: \$250,000

Abstract: The Office of Attorney General, Crime Laboratory Division is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiner and coroners within the state of North Dakota. The North Dakota Century Code 31-13 designates the Office of Attorney General, Crime Laboratory Division as the agency responsible for conducting DNA analysis on DNA samples collected from all convicted felony and registered offenders, as well as all felony arrestees in the state of North Dakota; the Office of Attorney General, Crime Laboratory Division is responsible for storing and maintaining the resultant profiles in the North Dakota State Index System (SDIS) and uploading the qualified profiles into the National DNA Index System (NDIS). The Federal funding from this award will be used for the following goals:

1. Fund an additional temporary Forensic Scientist to support the laboratory by doing quality control and quality assurance checks of instrumentation and reagents, and to prepare reagents for analyst use. The analyst will also prepare database samples, run robotic extractions, and amplify offender samples.
2. Purchase a Maxwell instrument and a 9700 thermocycler to replace aging equipment.
3. Purchase a pipetting workstation for the amplification room to improve efficiency in pipetting 96 well plates.
4. Reduce the backlog of forensic biology/DNA cases work requests through the adequate access to DNA profiling kits and supplies.
5. Reduce the backlog of DNA database samples through the adequate access to DNA profiling kits and supplies.
6. Purchase an additional software license for ArmedXp to improve workflow and service agreements for the maintenance of critical instruments.

The Crime Laboratory Division is striving to attain an average 30 day turnaround time for all disciplines within the laboratory. However, the current goal for this project is to reduce the average turnaround time to less than 60 days and to increase the productivity of each reporting casework analyst to at least 30 samples per month. With this funding, the Crime Laboratory Division expects to analyze 69 cases and at least 2,500 DNA database samples (which include 125 QC samples) during this project, as well as maintain a steady flow of DNA processing in an effort to reduce the future backlog.

[Return to Page 1](#)

FY13 Recipient Name: Nebraska State Patrol

Award Number: 2013-DN-BX-0016

Award Amount: \$325,649

Abstract: The Nebraska State Patrol Crime Lab (NSPCL) is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies in the state of Nebraska. In addition, the NSCPL is mandated by state law to be responsible for DNA analysis on DNA samples collected from all convicted felony and certain qualifying misdemeanor offenders. The NSPCL is responsible for storing and

maintaining the resultant profiles in the Nebraska Data Bank. The NSPCL is experiencing budgetary shortfalls due to the economy. The Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Reduce the backlog of DNA database samples.
3. Provide required continuing education to all analysts.
4. Add technology that will allow for simpler documentation of evidence.
5. Provide for upgrades and modifications to the DNA module of the Laboratory Information Management System (LIMS).
6. Implement a software solution to simplify and expedite mixture interpretation.

The NSPCL expects to analyze at least 144 cases by the grant-funded analyst and 2,880 database samples with the assistance of the database lab technician. The NSPCL expects to reduce the turnaround time of forensic cases to under 4 months.

[Return to Page 1](#)

FY13 Recipient Name: New Hampshire Department of Safety

Award Number: 2013-DN-BX-0021

Award Amount: \$250,000

Abstract: The New Hampshire State Police Forensic Laboratory (NHSPFL) is the sole provider of forensic services in the State of New Hampshire. As such, the laboratory performs all serology and DNA analyses in association with criminal investigations in the state, and also is responsible for the analysis and entry of offender and casework samples into the CODIS database. Like all other states, the NHSPFL is facing increased budgetary constraints. The Federal funding from this award will be used for the following goals:

1. Reduce the forensic biology case backlog and maintain or improve the current turnaround times through analyst overtime, purchasing supplies and a validation project.
2. Reduce the DNA database sample backlog.
3. Maintain current laboratory capabilities by replacing aging equipment and purchasing a service contract.
4. Increase laboratory capabilities through the purchase of new instrumentation.
5. Provide the required continuing education and proficiency tests for analysts, as well as maintaining licenses necessary for the laboratory's LIMS system.

It is expected that the NHSPFL will analyze a minimum of 300 DNA cases and 1000 database samples utilizing grant funds, and maintain its compliance with the FBI's DNA Quality Assurance Standards.

[Return to Page 1](#)

FY13 Recipient Name: New Jersey Department of Law and Public Safety (NJ)

Award Number: 2013-DN-BX-0065

Award Amount: \$1,203,256

Abstract: The New Jersey State Police (NJSP), Office of Forensic Sciences (OFS) maintains four forensic laboratories, which service over eight million people living in New Jersey. The system comprises the Hamilton Technology Complex, as well as the Northern, Eastern, and Southern Regional Laboratories. The Hamilton Technology Complex is a full-service State

laboratory and is responsible for analyzing evidential material associated with criminal investigations, DNA analysis of the 13 core loci, analysis of convicted offender samples, and analysis of arrestee samples for entry into the State and National Combined DNA Index System. The three regional laboratories provide drug, toxicology, and fire debris analysis services and accept DNA cases for transfer to the DNA Laboratory.

The overtime provided by the grant will give the OFS DNA Laboratory the additional time to perform DNA analysis on 510 cases from its backlog and upload the resultant DNA profiles generated into CODIS. The New Jersey State Police OFS CODIS database currently contains 16,868 forensic unknown profiles; funding through this DNA Backlog Reduction Program will provide the opportunity to expand that number.

Purchase of instrumentation, equipment and computers will enable the DNA Laboratory to replace out-dated ones, while the addition of a DNA module will expand and increase the capabilities of our existing LIMS system. This, together with an overtime project, will enable us to reach the goal of analyzing an additional 510 cases while creating a more efficient means of collecting, recording and reporting data that will be useful beyond the life of the grant. The Federal funding will enable the CODIS lab to expand and enhance its current capacity with the purchase of a new server and additional CODIS secure computers to be used exclusively for database entry of forensic unknowns. These additional CODIS computers will alleviate the bottleneck of analysts waiting for a secure computer to enter profiles generated from casework. The purchase of a Powerplex 18D kit will enable the CODIS Unit to analyze an additional 800 convicted offender database samples. The purchase and subsequent validation of Qiasymphony will reduce the time it takes to process samples, enhance sample quality, and increase the number of samples processed well beyond the scope of the grant. Funding provided for training will enable four analysts to attend the fall 2014 Promega meeting.

[Return to Page 1](#)

FY13 Recipient Name: County of Union (NJ)

Award Number: 2013-DN-BX-0100

Award Amount: \$92,700

Abstract: The Biology Section of the Union County Prosecutor's Office Forensic Laboratory offers biological screening and DNA analysis to law enforcement agencies within Union County, as well as other counties, at the request of the Union County Prosecutor's Office. The Laboratory consists of three county-funded DNA analysts (2 full-time, 1 seasonal), including the DNA Technical Leader/CODIS Administrator, and one grant-funded temporary DNA analyst. These analysts share the casework responsibilities for the county.

Grant funds will enable one temporary DNA analyst to perform casework responsibilities in the section. The analyst will focus on casework testing related to violent and property crimes under this grant funding, with probative DNA profiles entered into CODIS for searching against felon offenders and other crime scene DNA profiles.

[Return to Page 1](#)

FY13 Recipient Name: New Mexico Department of Public Safety

Award Number: 2013-DN-BX-0064

Award Amount: \$758,252

Abstract: The New Mexico Department of Public Safety (NMDPS), as the State Administering Agency for U.S. Department of Justice funding, is applying for the DNA Backlog Reduction Forensic Science Improvement Grant on behalf of three of New Mexico's forensic laboratories. In a collaborative effort to improve crime laboratories, the Albuquerque Police Department (APD) Crime Laboratory and the New Mexico DNA Identification System (NMDIS), administered by APD, jointly submit application for grant funds with the New Mexico (NM) Department of Public Safety (DPS) Forensic Laboratory.

The DPS Forensic Laboratory is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state of New Mexico. The DPS Forensic Lab maintains two regional laboratories – the Northern laboratory and the Southern laboratory. The Code of New Mexico designates the New Mexico DNA Identification System (NMDIS) as the agency responsible for conducting DNA analysis on DNA samples collected from all convicted felony and misdemeanor offenders as well as all felony arrestees in the state of New Mexico. The NMDIS is responsible for storing and maintaining the resultant profiles in the New Mexico DNA Data Bank. The Albuquerque Police Department (APD) Crime Laboratory maintains the DNA Database Unit. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Increase and maintain the capacity and capabilities of the DPS/APD casework laboratories.
3. Maintain continuing education for all analysts in the DPS/APD labs.
4. Purchase supplies, assemble, and distribute DNA Data base collection kits.

[Return to Page 1](#)

FY13 Recipient Name: Las Vegas Metropolitan Police Department (NV)

Award Number: 2013-DN-BX-0090

Award Amount: \$604,591

Abstract: The City of Las Vegas and the surrounding area of Clark County, Nevada, have a current population in excess of 2 million persons and, in 2012, hosted over 3.6 million visitors. The Las Vegas Metropolitan Police Department (LVMPD) Forensic Lab operates as a unit of local government, providing full-service forensic analysis capabilities to the southern Nevada community. In addition, it is the sole provider of forensic DNA analysis services to all of southern Nevada. The LVMPD Forensic Laboratory also operates and administers the Southern Nevada Combined DNA Index System (CODIS). The database is a CODIS Local installation with both casework and convicted offender responsibilities.

The Biology/DNA Detail of the LVMPD processes violent offenses and biological evidence associated with homicides, sexual assaults, robberies, attempted homicides, and kidnapping cases. Additionally, it processes a full range of property crimes, including burglaries and vehicle thefts in southern Nevada. The LVMPD Forensic Laboratory, Biology/DNA Detail is faced with

budgetary constraints and increased case backlogs. The Federal funding from this award will be used for the following goals:

1. Increase the capacity of the LVMPD Forensic Biology/DNA Detail by purchasing personal automation instruments for extraction. Outsource the validation for the instrumentation and associated extraction chemistry.
2. Increase the capacity of the LVMPD Forensic Biology/DNA Detail by purchasing upgrades to current 3130xL genetic analyzers to accommodate 6 dye chemistry.
3. Increase the capacity of the LVMPD Forensic Biology/DNA Detail by purchasing a semi-automated punching system.
4. Reduce the backlog of the Forensic Biology/DNA Detail and decrease case turnaround time through in-house case processing on overtime.
5. Provide required continuing DNA education by sending eight DNA analysts to national conferences.
6. Meet Quality Assurance Standards for literature review by maintaining subscriptions to current scientific journals and purchasing relevant DNA textbooks.
7. Maintain database sample collection protocols by purchasing Offender collection kits for use in the southern half of Nevada.

The LVMPD Biology/DNA Detail expects to process at least 88 forensic cases in-house with federal-funded overtime. By processing cases on overtime and increasing the capacity through the validation of several personal extraction robots, the Biology/DNA Detail will work toward reducing the overall backlog of DNA cases. The goal of the Biology/DNA Detail with these capacity enhancements is to decrease the turnaround time from 322 days to 275 days, increase the number of samples processed per month from 38 to 45 samples per analyst per month, and ultimately reduce the backlog of DNA cases.

[Return to Page 1](#)

FY13 Recipient Name: Washoe County (NV)

Award Number: 2013-DN-BX-0121

Award Amount: \$350,000

Abstract: The Washoe County Sheriff's Office, Forensic Science Division (WCSO-FSD) is the agency that is responsible for analyzing forensic evidence associated with criminal investigations for all state and local law enforcement agencies within the northern region of the state of Nevada. The WCSO-FSD Biology Unit is responsible for overseeing DNA analysis and subsequent upload to NDIS of forensic profiles and DNA samples collected from all convicted felons within the northern portion of the state. As the designated state CODIS laboratory, they are responsible for uploading all eligible database profiles submitted from the Las Vegas Metropolitan Police Forensic Laboratory, as well.

The WCSO-FSD has faced budgetary constraints and the Biology Unit was chosen to share one analyst half time with the Controlled Substances Section. The sudden resignation of another DNA analyst burdened the now smaller Unit with a vacancy that, while filled quickly, was filled by an untrained analyst. Pending arrestee legislation has passed unanimously in the Senate and is now in the Assembly. Passage of this bill would increase the 200/month database samples to approximately 1,000/month. If passed, the samples will begin to be collected July 1, 2014. The

Federal funding from this award will help to alleviate the staff reduction as well as assist in giving analysts more time and supplies to work forensic casework. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Maintain a rapid turnaround time of DNA database samples.
3. Increase the capacity of the WCSO-FSD casework laboratory.
4. Maintain continuing education for nearly all analysts in the laboratory.

The WCSO-FSD expects to analyze at least 106 forensic DNA cases (34 with overtime and supplies and 72 with an additional analyst) and 3,600 database samples (all by outsourcing). The laboratory expects to maintain a rapid average database turnaround time of 60 days or less, reduce the casework turnaround to 60 days or less, and increase the number of samples analyzed per analyst per month to 30.

[Return to Page 1](#)

FY13 Recipient Name: City of New York, Office of Chief Medical Examiner

Award Number: 2013-DN-BX-0029

Award Amount: \$1,300,000

Abstract: The Department of Forensic Biology, of the Office of Chief Medical Examiner, serves as the public forensic laboratory for the City of New York, providing serology and DNA testing on thousands of case submissions every year. In 2012, a total of 32,505 DNA samples were extracted, with 17,525 STR profiles generated, analyzed, and reviewed. As a result, the Department of Forensic Biology uploaded 3,341 profiles into CODIS. During the same year, 1,712 matches were made.

Ongoing budget reductions and attrition have lowered the existing DNA criminalist head count, threatening Forensic Biology productivity and the timeliness of DNA testing results. Our 2013/2014 goals are to improve upon the current capacity and reduce turnaround time and case backlog by half. The FY13 backlog reduction proposal aims to achieve this by focusing on six types of actions to be taken:

1. Increase available staff hours through weekend overtime.
2. Purchase DNA testing supplies to avoid processing bottlenecks and improve capacity by finalizing validation of QIAcube.
3. Improve upon case turnaround time and backlog by implementing Lean Six Sigma Process Mapping into laboratory procedures and management structure.
4. Purchase additional LIMS user licenses to increase system access capacity.
5. Maintain compliance with accreditation standards by scheduling the bi-annual external audit and annual pipette maintenance and calibrations.
6. Provide continuing education through scientific conference and professional meeting travel.

It is expected that weekend overtime and supply funding will result in additional assignments that can be processed. The goal is to reduce both the case backlog and turnaround time by half within the next 18 months, doubling overall productivity, by implementing the Lean Six Sigma recommendations made by Sorensen Forensics.

[Return to Page 1](#)

FY13 Recipient Name: County of Erie (NY)

Award Number: 2013-DN-BX-0022

Award Amount: \$695,031

Abstract: The Erie County Central Police Services Forensic Laboratory performs forensic DNA analysis for the local, State and Federal law enforcement agencies of Erie County, New York (population 900,000). Additionally, we provide forensic DNA analysis for all of Niagara County and Orleans County (total population 270,000) and occasional forensic DNA analysis for law enforcement agencies from 3 neighboring counties. We currently have 9 full-time DNA analysts (including 2 section supervisors who also perform DNA/Biology casework analyses) and one part-time DNA analyst (total of 10). Additionally, the Quality Assurance Coordinator performs DNA/Biology casework. With the success of CODIS, casework requests have been steadily increasing, especially in the areas of forcible sexual assault, burglary, weapons possession, robbery and assault. The weapons possession cases require a short turnaround time in order to meet court-mandated time constraints. These cases are worked during regular operating hours. Additionally, we are experiencing an increase in the number of items submitted for each case and more requests for DNA analysis on evidence associated with homicides, including cold cases. This has resulted in a significant backlog and a need to decrease the turnaround time. In order to further increase the analytical capabilities of this lab, it is necessary to perform a portion of the lab work on backlogged cases using overtime and to continue the funding for the 2 DNA analyst positions and the Quality Assurance Coordinator position that were funded under previous NIJ grant programs.

The Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic DNA/Biology cases.
2. Increase the capacity of the laboratory and reduce bottlenecks.
3. Improve the overall turnaround time for the completion of DNA cases.
4. Maintain current laboratory equipment in good working order.

It is anticipated that the additional overtime spent on casework will result in a decrease in the turnaround time and a decrease in the number of backlogged cases, since the analysts will be able to process more cases in a shorter period of time. The long term goal is to analyze the current backlog of cases and to then provide a 30 day turnaround time for new cases. The funding from this grant (\$695,031) will result in the completion of 260 additional cases using overtime, and 414 DNA/Biology cases are expected to be completed by the 2 DNA analysts and Quality Assurance Coordinator that were hired using this funding. A portion of the funding will be used to purchase the supplies necessary to analyze the additional cases. Additional funding is requested to purchase maintenance service agreements for the genetic analyzers and quality management system.

[Return to Page 1](#)

FY13 Recipient Name: County of Suffolk (NY)

Award Number: 2013-DN-BX-0010

Award Amount: \$296,243

Abstract: The 2013 Forensic DNA Backlog Reduction program is intended for increasing the throughput and timeliness of forensic analysis of evidence submitted to the Suffolk County Crime Laboratory Biological Sciences Section. This task is to be completed in several ways. Capacity and efficiency will be increased through the purchase of the NicheVision KPICS Spermfinder System. This will allow more rapid processing of sexual assault evidence at the screening stage. Tablet computers will allow for paperless note-taking during evidence examination. The refrigerator and freezer will replace old units used for storage of DNA quantitation and PCR amplification kits. Funds will be used for the purchase of supplies, such as capillary arrays and kits, used in DNA analysis. This replaces supplies that we will not be able to purchase due to budget cuts, allowing us to maintain our current level of service. Funds will also be used to outsource backlogged DNA samples to an accredited fee-for-service vendor laboratory for DNA Analysis. This will allow us to add DNA profiles to CODIS from no-suspect property crime cases that we are not able to analyze in-house due to a lack of staff. Contract employees will be hired to assist in the screening of backlogged biological evidence. This will ultimately lead to DNA analysis and CODIS entry of samples from backlogged cases that we are not able to analyze due to our manpower constraints. Funds will be used for on-line training in the TrueAllele System for three analysts. This will allow us to complete our validation of the system and utilize it for mixture interpretation on DNA casework.

[Return to Page 1](#)

FY13 Recipient Name: County of Westchester (NY)

Award Number: 2013-DN-BX-0008

Award Amount: \$341,819

Abstract: Funding from this grant will go toward satisfying two ends: increasing the capacity to perform DNA analysis and reducing the backlog created by uncompleted cases in the Forensic Science Laboratory of the Westchester County New York Division of Forensic Sciences. The accomplishment of these goals is tantamount to continuing our pledge to furnish preliminary DNA results to investigating agencies in a timely manner.

Our laboratory has been online with STR DNA typing since 1999. In fourteen years, the demands on and expectations of all forensic case-working laboratories has intensified such that analytical turnaround time must be greatly reduced and the typing techniques employed must be increasingly more sophisticated. Currently, our laboratory employs nuclear STR typing and Y-STR typing techniques. In addition, the FBI Quality Assurance Standards, which took effect in July 2009, and the SWGDAM (Scientific Working Group on DNA Analysis Methods) Guidelines, which took effect in January 2010, have imposed additional requirements for casework analysis and mixture interpretation.

To maintain pace with evolving trends and national accreditation requirements for DNA analysis, and to reduce our current backlog of cases to be analyzed for DNA, our laboratory will require new laboratory supplies and equipment, hardware support via instrument service contracts, access to training opportunities and travel monies, and the capability to hire temporary laboratory technician support staff. This augmented capacity will enable us to process, record, screen, and analyze forensic DNA samples in order to further reduce the amount of time required to complete casework. We anticipate the momentum created by this optimized workflow will

preemptively reduce future bottlenecks at the examination, analytical, and review stages of casework by substantially minimizing our current backlog.

In this grant we are requesting funding that would allow us to continue the trend of providing the most probative case results to the requesting agency in a timely manner, increase our capacity to complete ancillary casework procedures, and reduce our backlog of “UCR Part 1 Violent Crimes” forensic casework, including property crimes.

[Return to Page 1](#)

FY13 Recipient Name: Monroe County (NY)

Award Number: 2013-DN-BX-0031

Award Amount: \$366,885

Abstract: The Monroe County Crime Laboratory (MCCL) is a regional crime lab that regularly provides forensic services for over 40 police agencies within an 8-county region of New York State. In addition to these counties, the laboratory often provides services to the New York State Police, ATF, U.S. Attorney's Office and the New York Park Police (approximately 52 agencies). The City of Rochester is the largest city within the 8-county region and accounts for the majority of cases completed by the MCCL. The total service area represents a population of approximately 1,204,275 (U.S. Census, 2010). The MCCL is the agency responsible for conducting DNA analysis on the DNA samples collected in the region and uploading samples into to CODIS database.

The MCCL is facing monetary constraints severely impacting the supply, equipment purchase, instrument maintenance and travel budget allotted to the Forensic Biology section. The federal funding from this award will be used to achieve the following goals:

1. Provide the required continuing education for each analyst.
2. Replace existing equipment that has met life expectancy.
3. Support a more efficient workflow as established through a Lean Six Sigma project by purchasing DNA kits, supplies, equipment, and software.
4. Maintain optimal instrument performance by continuing maintenance contracts on analysis instrumentation and supporting system equipment.
5. Fulfill accreditation requirements through an external QAS audit.
6. Maintain accreditation requirements by supporting calibration and certification of equipment.
7. Maintain accreditation requirements by participating in regularly scheduled proficiency testing programs.
8. Maintain accreditation requirement for review of relevant scientific literature.
9. Support a more efficient transfer and archiving of data through re-wiring of network.

The MCCL can expect to reduce the DNA case backlog by at least 159 cases by the end of the award period.

[Return to Page 1](#)

FY13 Recipient Name: Nassau County (NY)

Award Number: 2013-DN-BX-0015

Award Amount: \$339,540

Abstract: The Nassau County Medical Examiner's Office, Department of Forensic Genetics (DFG) is the agency that is responsible for analyzing biological evidence associated with criminal investigations for all local law enforcement agencies within the county of Nassau. The DFG functions as the county's CODIS custodian. The laboratory is located at 2251 Hempstead Turnpike in East Meadow, NY – a separate location from its administrative office located at 1 West Street, Mineola NY.

The objective of the proposed National Institute of Justice Forensic DNA Backlog Reduction Program for FY2013 is to reduce the overall turnaround time for the handling, screening, and analysis of forensic DNA samples, and to improve laboratory throughput in an effort to prevent future DNA forensic casework backlogs within the County of Nassau. In order to reduce the overall turnaround, two factors contributing to analysis bottlenecks will be addressed through the use of 2013 grant funds. (1) Bottlenecks in backlogged case reviews (technical and administrative reviews) will be addressed through funding of overtime for administrative personnel responsible for said reviews. (2) Bottlenecks at extraction and sample prep stages will be addressed through the incorporation of Qiagen-based liquid handlers. With the use of 2012 NIJ Backlog Reduction funds, the laboratory was successful in accomplishing its goal of a 90-day turnaround. For this current solicitation, the laboratory will be striving to meet its goal of a 60-day turnaround for the delivery of test results to its users.

In order to maintain the current capacity of property crime-related DNA analysis, the laboratory is requesting the funds for the purchase of reagents and consumable, which will prevent the rejection of a significant number of property crime related cases. This is a vital initiative to the laboratory and its users since property crimes accounted for approximately 57% of submissions, 57% of CODIS profiles entered, and 62% of CODIS hits returned in 2012. The methods proposed for this project will be measured by the expected decrease in case turnaround time and the number of CODIS eligible profiles entered into the database. Metrics will be generated by the Laboratory Information Management System report function.

[*Return to Page 1*](#)

FY13 Recipient Name: New York State Police

Award Number: 2013-DN-BX-0004

Award Amount: \$1,050,000

Abstract: The funding from the National Institute of Justice FY2013 DNA Backlog Reduction Grant will be applied to the following goals:

1. Reduce the current forensic DNA casework backlog by providing analyst overtime and outsourcing STR DNA casework to a commercial forensic genetic identity testing laboratory.
2. Increase the analytical capacity of the forensic DNA casework laboratory by purchasing broad spectrum light sources for illumination of body fluid stains to expedite the flow of biological evidence samples into the DNA laboratory's automation facility; and by acquiring computer servers and other hardware/peripherals to house data quality assessment and interpretation software for processing the enhanced forensic STR data flow from the DNA laboratory's automation facility. Funds will also be applied for contracting personnel to support the DNA Laboratory's Information Management System

(LIMS Coordinator). Throughput will be maintained while new NDIS-approved amplification kit(s) are introduced by contracting with a commercial laboratory to perform requisite validation studies.

3. Provide mandated continuing education for fifteen forensic scientists in the Biological Science casework unit and access of staff to current literature on forensic DNA technology.
4. Maintain and decrease the turnaround times for processing, analysis and CODIS entry of convicted offender DNA patterns by purchasing an additional Genetic Analyzer for analyzing samples.
5. Utilize an outside vendor for validation services to reduce amount of time to validate and implement new technology.
6. Develop a LIMS requirement matrix to capture the requirements needed to enhance the current Database Unit's Laboratory Information Management System (LIMS).

By the end of the award period, the New York State Police Forensic Investigation Center expects to reduce the current DNA case backlog by at least 152 cases (34 through in-house testing and 118 through out-sourcing). By increasing analytical capacity, the throughput of forensic scientists performing DNA analysis in the casework unit is expected to increase by 10-20%. Similarly, the turn-around times for DNA casework is expected to decrease by 5-10 days or more. The NYSPFIC DNA database unit expects to maintain an average turn-around time of less than 30 days, complete a validation of new technology within a one year time frame, and complete a formalized requirements document that will to be used in the procurement process for soliciting bids from LIMS vendors.

[Return to Page 1](#)

FY13 Recipient Name: Onondaga, County of (NY)

Award Number: 2013-DN-BX-0009

Award Amount: \$239,273

Abstract: The Onondaga County Health Department, Forensic Laboratories is the bureau responsible for analyzing evidential material associated with criminal investigations for all local law enforcement agencies within the County of Onondaga. The Forensic Laboratories are being challenged with an ever increasing workload and tightening local government budgets. With the general goals of reducing the number of backlogged cases and increasing section capacity, the DNA section will utilize funds from the 2013 DNA Backlog Reduction Grant for the following:

1. Retain a DNA analyst.
2. Fund analyst overtime.
3. Provide discipline specific continuing education.
4. Purchase equipment.
5. Purchase supplies.
6. Renew a maintenance agreement covering section's PCR systems and genetic analyzers.
7. Purchase proficiency tests.
8. Purchase and implement DNA mixture interpretation software.

The Forensic Laboratories intend to analyze 32 backlogged DNA cases on overtime and expect 90 cases to be analyzed by the retained analyst. The increased throughput will effectively reduce

turnaround time, further enhancing the services offered to the criminal justice community of New York State.

[Return to Page 1](#)

FY13 Recipient Name: City of Columbus (OH)

Award Number: 2013-DN-BX-0071

Award Amount: \$291,603

Abstract: Columbus Police Crime Laboratory DNA Backlog Reduction Project 2013 seeks to enact improvements that will enable the crime laboratory to process DNA samples efficiently and effectively, thereby reducing the backlog of DNA cases awaiting analysis. The Columbus Police Crime Laboratory has faced challenges in addressing casework for several years. These challenges include a shortage of personnel and instrumentation, compounded by a lack of laboratory space to house additional staff and equipment. Construction will begin on a new laboratory facility in July 2013, with move-in expected to occur in July 2014. This grant's objectives will complement those from past DNA Backlog Reduction Program grants and will provide funding necessary to equip the new facility with technology capable of greatly increasing capacity. Federal funding from this award will be used for the following goals:

1. Reduce the forensic DNA case backlog through purchasing supplies.
2. Increase the capacity of the laboratory by purchasing equipment (automated extraction station used for both extraction and qPCR/STR setup such as the Tecan EVO 150 HID combination system.
3. Provide the required continuing education for each analyst.

The Columbus Police Crime Laboratory can expect to reduce the DNA case backlog by at least 27 cases by the end of the award period. The turnaround time is expected to be reduced to 60 days or less, and the analyst throughput in the casework sections is expected to increase to 60 samples per month per analyst.

[Return to Page 1](#)

FY13 Recipient Name: City of Mansfield (OH)

Award Number: 2013-DN-BX-0091

Award Amount: \$110,805

Abstract: The Mansfield Division of Police, Forensic Science Section DNA Laboratory is an agency that is responsible for analyzing evidential material associated with criminal investigations for local law enforcement agencies in Mansfield, Ohio, and adjoining communities. The DNA Laboratory is composed of 2 DNA Analysts and has been in operation since 2001. This laboratory is also one of eight Ohio NDIS laboratory participants. CODIS operations are performed on the local level, with samples being uploaded to the State of Ohio for submission to NDIS.

The Mansfield Division of Police Forensic Science Section DNA Laboratory continues to face budgetary constraints with respect to personnel. The Federal funding from this award will be used for the following goals:

1. Reduce the forensic DNA case backlog, maintain a low turnaround time and continue participation in CODIS.
2. Provide the required continuing education for each analyst.
3. Purchase supplies for the analysis of 50 cases for the Canton-Stark County Crime Laboratory, to reduce its current backlog of 420 cases.
4. Provide consulting services of an interim Technical Leader for the Canton-Stark County Crime Laboratory until the permanent Technical Leader is hired.

The Mansfield Division of Police Forensic Science Section DNA Laboratory can expect to reduce the DNA case backlog by at least 130 cases by the end of the award period (80 from Mansfield, 50 from Canton-Stark). The turnaround time is expected to be reduced and throughput in the casework section has increased as new instrumentation was purchased with previous award funding.

[Return to Page 1](#)

FY13 Recipient Name: Cuyahoga County (OH)

Award Number: 2013-DN-BX-0066

Award Amount: \$300,000

Abstract: The Cuyahoga County Regional Forensic Science Laboratory (CCRFSL) is the primary DNA Analysis Laboratory for Cuyahoga County and the region. The CCRFSL continues to maintain ASCLD/LAB-International Accreditation and will complete their Biennial External DNA Audit in May of 2013. The CCRFSL began taking additional case work in 2012, and is now accepting rape kit tests and other non-fatal casework from numerous jurisdictions throughout Cuyahoga County and the region. From July through December 2012, there were a total of 421 requests, which represents a 147.65% increase from the previous six months. In three quarters of 2012, the lab accepted 290 rape kit tests from the City of Cleveland. It is anticipated that the number of rape kit tests from the City of Cleveland will surpass 500 in 2013. In the first quarter of 2013, there have been 164 cases submitted. It is anticipated that all casework will continue to rise into the foreseeable future.

In anticipation of the increase of casework, the Medical Examiner has hired three new Analysts and two DNA Technicians. Currently, two analysts and one technician have completed all required training and are working cases and completing preparatory work. One analyst and one technician should be completing training in late second or early third quarter of 2013. Given the increase of casework, it is not clear how sample turnaround time, throughput capacity and backlog statistics will fluctuate; however, the CCRFSL is optimistic that these numbers will be in the positive direction as a result of the funding under the 2013 DNA Backlog grant. The DNA Technical Manager and Supervisor will be tracking all of these metrics, as explained elsewhere in this application. This year's project will consist of the following:

1. Overtime for Analysts and Technicians to reduce the backlog.
2. Procurement of DNA consumable supplies.
3. Continuing professional development for DNA staff.

[Return to Page 1](#)

FY13 Recipient Name: Hamilton County (OH)

Award Number: 2013-DN-BX-0124

Award Amount: \$205,637

Abstract: The Hamilton County Coroner's Laboratory is facing continued budgetary constraints as public funding continues to be reduced within the county. Grant funds will ensure supplies are available to process backlogged cases. The Federal funding from this award will also be used to enhance the capacity of the DNA section. This award will be used for the validation and implementation of Y-STR technology. This award will be specifically used for the following goals:

1. To enhance the capacity of the DNA section by implementing Y-STR amplification technology. The analysis software and supplies necessary to validate Y-STR analysis are included in this funding request. Grant funds will also be used to pay for a validation team to perform the validation so that analysts are able to analyze casework and continue to decrease our backlog.
2. To reduce the backlog by 50 old cases. Grant funds will permit purchasing critical reagents and other supplies necessary for the processing of these backlogged cases. The laboratory will process these cases in-house using existing procedures and recently upgraded equipment.
3. Maintain the capabilities of the Hamilton County Coroner's Laboratory through the funding of critical equipment service contracts.
4. Maintain continuing education for all DNA analysts in the lab.

[Return to Page 1](#)

FY13 Recipient Name: Lake County (OH)

Award Number: 2013-DN-BX-0057

Award Amount: \$50,000

Abstract: The LCCL is an ASCLD/LAB-International accredited laboratory. DNA has been in place in the laboratory since 1994. STR-CE technology has been in place since 2000, with one full-time DNA Technical Manager analyzing most/all of the DNA cases. The second full-time DNA Analyst was also the Laboratory Director, Quality Manager, DNA Technical Reviewer, Training Manager and Crime Scene Analyst. The laboratory has been able to maintain this configuration for many years. Now that the laboratory is accredited under the international program, the amount of work required of the Quality Manager and Laboratory Director positions has greatly increased. In order to keep up with the workflow in DNA and the rest of the laboratory duties, the LCCL hired an additional person to fill the position of DNA Analyst, using DNA grant funding. This second full-time analyst has been trained and is currently analyzing DNA cases. The LCCL requests the funding for a portion (approximately 76%) of the DNA Analyst's salary, in order to continue her employment. These grant funds will support the DNA analyst's salary and benefits for approximately 9.8 months of the period of the grant (this will be less than 18 months because of the amount of the grant funds). The other portion of this analyst's salary will be paid for through Lake County Crime Laboratory funds.

[Return to Page 1](#)

FY13 Recipient Name: Montgomery County (OH)

Award Number: 2013-DN-BX-0122

Award Amount: \$262,249

Abstract: The Miami Valley Regional Crime Laboratory is a full-service forensic laboratory

serving the law enforcement agencies in southwest Ohio. Approximately thirty-one law enforcement agencies in Montgomery County and forty-six located in seven counties use the services of the Laboratory for all of their forensic analysis needs. Additionally, numerous other agencies will use the services offered as needed throughout the year. The Laboratory will use funds from this grant to:

1. Purchase casework supplies, which will be used to work cases and specifically address the backlog cases.
2. Purchase maintenance contracts for equipment and software in the DNA section.

The turnaround time on DNA cases is expected to be reduced from 38 days to 21 days, or 45%. The number of samples worked by an analyst each month is expected to increase from 37 to 45, or 20%.

[Return to Page 1](#)

FY13 Recipient Name: Ohio Office of the Attorney General

Award Number: 2013-DN-BX-0088

Award Amount: \$926,413

Abstract: The Ohio Bureau of Criminal Investigation (BCI) is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies within the state of Ohio. BCI operates three regional forensic science laboratories throughout the state. The London and Richfield regional laboratories have full forensic DNA casework laboratories and the Bowling Green regional laboratory operates as a forensic biology laboratory. In addition, Ohio Revised Code 109.573 designates BCI as the agency responsible for conducting analysis on DNA samples collected from all convicted felony and certain misdemeanor offenders, as well as all adult felony arrestees in the state of Ohio. BCI is responsible for storing and maintaining the resultant profiles in the Combined DNA Index System (CODIS). The bureau's London laboratory maintains CODIS.

BCI has undertaken an aggressive and comprehensive initiative to decrease DNA testing turnaround time, reduce sample backlogs, and increase laboratory capacity. The casework biology and DNA units have increased from 31 bench-level staff in January 2011, to 55 in May 2013. Additionally, the expansion of the core loci by the FBI will increase the cost of the testing kits. Therefore, validating the kits at a 1/2 reaction will allow the laboratory's CODIS section to increase capacity without spending additional dollars. Therefore, the federal funding from this award will be used for the following goals:

1. Reduce the forensic DNA case backlog and decrease the turnaround time through the purchase of supplies.
2. Increase the capacity of the DNA casework laboratory by purchasing two Tecan EVO 100 and two Tecan EVO 150 Robot platforms.
3. Assist in maintaining compliance with the FBI Quality Assurance Standards of an external assessment of the DNA program at Ohio BCI.
4. Increase the CODIS DNA throughput through the purchase of new expanded core loci kits for evaluation from the two major manufacturers.

BCI expects to reduce the DNA casework backlog by at least 312 cases through in-house testing using federally funded supplies. Chemicals and reagents will be purchased from Life Technologies to support testing of backlogged casework samples on the Life Technologies' 3130XL and 3500 XL genetic analyzer systems. The BCI turnaround time is expected to be reduced to 30 days or less for actively investigated cases. Finally, the CODIS Section expects to double their capacity upon the validation of the expanded core loci kits utilizing 1/2 reactions. The samples worked will increase; however, the funds spent will be maintained.

[Return to Page 1](#)

FY13 Recipient Name: City of Oklahoma City (OK)

Award Number: 2013-DN-BX-0055

Award Amount: \$185,000

Abstract: The Oklahoma City Police Forensic DNA laboratory continues to see an increase in case submission requests (approx. 23% growth since 2012) and is seeking to continue to streamline DNA laboratory workflow and capacity through automation and new technology. Building on robotic automation upgrades purchased during previous awards, the laboratory seeks to continue to improve efficiency and capacity by purchase and validation of one Hamilton Nimbus IC microlab liquid handling robot. This instrument will enhance DNA laboratory workflow by assisting in automation of quantification/amplification plates and normalization setup, reducing analyst handling and allowing higher throughput at these critical steps in the process. Its flexibility and customizable software allows this particular robot to function within the laboratory flow at several stages.

In addition, the laboratory seeks to implement and validate a new dual RT-PCR Quantification kit to assist in batch screening of sexual assault kits (14% of all submissions) by exploiting Y-STR technology. It is intended that this process will allow a significant reduction in analyst time reading traditional slides, as well as improve detection of male-specific DNA, improving processing and reporting times in such cases.

[Return to Page 1](#)

FY13 Recipient Name: City of Tulsa (OK)

Award Number: 2013-DN-BX-0048

Award Amount: \$272,347

Abstract: The Tulsa Police Department Forensic Laboratory (TPDFL) is responsible for analyzing evidential material associated with criminal investigations for the Tulsa Police Department within the City of Tulsa. The TPDFL has a fully operational existing forensic DNA casework section that undergoes external quality assurance audits in accordance with the FBI's Quality Assurance Standards at least once every two years and is accredited under the ASCLD/LAB program. The federal funding from this award will be used for the following goal:

1. Increase the capacity of the laboratory by purchasing equipment (3500 capillary electrophoresis instrument) and retain two forensic scientists.

The TPDFL expects to analyze at least 288 forensic biology and DNA cases over the award period by the grant-funded positions. The agency also expects to reduce the turnaround time to less than 60 days and increase the productivity of each analyst to at least 50 samples per month.

FY13 Recipient Name: Oklahoma State Bureau of Investigation

Award Number: 2013-DN-BX-0093

Award Amount: \$611,521

Abstract: The Oklahoma State Bureau of Investigation is the agency that provides forensic services in criminal cases to all eligible agencies in the state of Oklahoma. The Biology discipline of the OSBI consists of three Forensic Biology Units located in three laboratories across the state. The primary unit is located at the Forensic Science Center in Edmond, Oklahoma, while the two regional laboratories are located in Lawton and Tahlequah, Oklahoma. The OSBI is also responsible for processing offender samples in accordance with state law. The CODIS unit of the OSBI located at the Forensic Science Center in Edmond, Oklahoma is the corresponding unit. The OSBI has been through significant budget cuts throughout the past several years. The agency is still operating under a reduced budget this next fiscal year, which means that funding is limited for consumable products and salaries of the technicians. The funding from this award will assist the OSBI in continuing its mission of providing the resources listed above to agencies in Oklahoma. The OSBI has the following goals for this award:

1. Reduce and prevent the backlog of DNA cases and offender samples.
2. Increase capacity in both casework and database.
3. 30 day turnaround time for DNA cases.

The OSBI seeks to improve casework productivity while decreasing the overall turnaround time and backlog of cases and maintaining the productivity of analysis regarding offender DNA samples. The increase in casework productivity and capacity for offender DNA sample processing will be achieved by continuing to include technicians in the processing of certain steps and with the use of overtime for analysts. The increase in casework productivity and decrease in turnaround time will also be achieved using reagents and supplies which otherwise would not be purchased.

The OSBI requests \$367,721.57 for the purchase of supplies that will reduce sample processing time and/or increase the number of samples processed. The Casework funding will be used to purchase amplification and quantification kits, which will be used in all DNA casework performed throughout the OSBI laboratory system. The Database funding will be used to purchase supplies used throughout the profiling process in all DNA database work performed in the CODIS unit. The OSBI also requests \$207,990.22 to extend three technician positions and provide overtime funds for analysis of cases. This funding request includes both salary and benefits. The biology technician positions will be used to aid in the handling, screening, and analysis of forensic biology evidence. The CODIS technician position will be used in the accessioning, processing and input of offender samples. In addition, all three technician positions will be utilized for QA/QC, and overall laboratory maintenance. Finally, the OSBI requests \$35,809.21 for the purchase of CODIS offender collection kits. These kits are provided by the OSBI to agencies responsible for the collection of offender samples. These kits are then returned to the OSBI CODIS unit for processing. With this funding, the OSBI expects to analyze at least 187 forensic cases and 10,000 offender samples. The OSBI has been able in the past to reach a 30 day turnaround time, and would expect to reduce the turnaround time significantly using this funding bringing us closer to meeting this goal.

FY13 Recipient Name: Oregon State Police

Award Number: 2013-DN-BX-0037

Award Amount: \$616,425

Abstract: Project goals and objectives:

The goals of this proposal are to: 1) reduce the DNA casework and database sample backlog, 2) increase the efficiency and capacity of DNA casework and database screening, processing and analysis, and 3) provide required training and continuing education for DNA analysts and Forensic Biologists. The objectives are the following:

- A. Fund two Forensic Scientists positions (one for casework and one for database analysis).
- B. Provide overtime for the analysis of backlogged DNA cases.
- C. Eliminate a bottleneck and increase efficiency of DNA casework processing and analysis through equipment purchases.
- D. Provide training and continuing education opportunities to analysts to assist with obtaining competency or maintaining proficiency.

Project design and methodology:

- Objective A: We will provide support for 12 months to one full-time DNA database (CODIS) analyst and one full-time DNA casework analyst. One Forensic Scientist 1, step 1, will be retained with OSP for 12 months (April 1, 2014, to March 31, 2015) to process, analyze and report the DNA results from backlog DNA cases. The current funding for the DNA casework position is a NIJ FY2012 DNA Backlog Reduction Program grant (2012-DN-BX-0093). Funds from this grant will allow us to retain this position. If retained, this analyst will analyze any backlogged DNA cases. In 2010, we began processing all CODIS samples in-house. We have dedicated space, equipment, and 1 full-time CODIS analyst. The full-time CODIS position is currently funded using the FY2012 DNA Backlog Reduction Program Grant (2012-DN-BX-0093). To continue processing all CODIS samples in-house and maintain our current capacity of ~978 samples/analyst/month, we will use the FY2013 DNA grant funds to support this position for 12 months.
- Objective B: Grant funds will provide overtime for approximately 14 Forensic Biology/DNA analysts to process and analyze backlogged DNA cases. The majority of the backlogged samples are no-suspect(s) property crime cases. Profiles from these cases will be entered into CODIS and subsequent hits will be reported to the police agency to aid in their investigation. The overtime will help to minimize our DNA backlog. Grant funds will provide overtime for approximately 3 analysts to process and analyze backlogged database samples.
- Objective C: To eliminate a bottleneck and increase efficiency of DNA casework processing and analysis, we will purchase an AB 3500XL Genetic Analyzer.
- Objective D: Analysts will participate in various in-state and out-of-state training opportunities to fulfill training requirements for competency or to maintain proficiency. Current DNA analysts will attend various professional conferences (e.g., NWAFFS, AAFS, the International Symposium on Human Identification) to maintain their

proficiency and keep current with new technologies. In-house training will also be provided on statistical analysis of complex DNA mixtures.

[Return to Page 1](#)

FY13 Recipient Name: Allegheny County Pennsylvania

Award Number: 2013-DN-BX-0085

Award Amount: \$294,049

Abstract: The Forensic Biology Section of the Allegheny County Office of the Medical Examiner (ACOME) has worked extensively in recent years to develop and implement an automated DNA processing methodology that has effectively increased the DNA sample throughput and improved the turnaround time for casework. Through the acquisition of advanced robotics and information technologies, Forensic Biology has successfully established the framework for this automated DNA processing design. At the same time, the ACOME has devoted significant resources and effort to training of new personnel amid personnel turnover. The ACOME now has a staff of eight forensic biologists, and five of the staff members are court-qualified DNA analysts. With the automated framework in place, a fully trained staff with which to operate, and the anticipated implementation of the new DNA LIMS system in the fall of 2013, the ACOME recognizes the opportunity to bypass potential workflow bottlenecks, streamline the DNA workflow, and reduce the casework backlog through capacity enhancements, equipment upgrades, and the deployment of a Lean Six Sigma laboratory program.

Funding from the proposed project will be used to purchase a Biomek NXP Laboratory Automation Workstation and an additional GeneAmp PCR System 9700 Thermal Cycler, along with the necessary validation supplies. Funding will also be utilized to upgrade the laboratory's TrueAllele DNA interpretation system software and to implement a Lean Six Sigma program in the laboratory. The ACOME projects a budget of \$294,049 and an estimated timetable of 18 months (October 1, 2013 to March 31, 2015) for successful completion of the proposed program.

[Return to Page 1](#)

FY13 Recipient Name: City of Philadelphia (PA)

Award Number: 2013-DN-BX-0114

Award Amount: \$1,069,271

Abstract: The Philadelphia Police Department, Office of Forensic Science, Criminalistics Unit is the agency that is responsible for analyzing evidentiary material associated with criminal investigations for the City of Philadelphia. The Criminalistics Unit comprises the DNA Laboratory, which conducts all DNA typing analysis, and the Trace Laboratory, which screens evidence for biological material suitable for DNA analysis.

The Philadelphia Police Department, Office of Forensic Science, Criminalistics Unit is facing budgetary constraints. For the years 2009, 2010 and 2011, the City of Philadelphia accounted for 40% of the Violent Part 1 Crimes in the State of Pennsylvania for each year listed. The demand for services to the Office of Forensic Science DNA Laboratory is expanding, while the funds available are decreasing. Increases in the sensitivity of DNA technology and the success of CODIS entries have resulted in increased application of DNA analysis to any evidence that is known to have been touched by the suspect. The Federal funding from this award will be used for the following goals:

1. Reducing the forensic DNA case backlog by funding analysts to work overtime to analyze backlogged forensic biology/DNA cases..
2. Reducing the forensic biology/DNA case backlog through the outsourcing of backlogged cases to be screened for biological material suitable for DNA analysis and the development of any DNA profiles.
3. Sending six forensic scientists to the premier meetings for forensic DNA technology. This will keep the laboratory informed about technological advances, analytical modifications, interpretation issues, and provide continuing education.

The Philadelphia Police Department, Office of Forensic Science, Criminalistics Unit can expect to reduce the backlog of forensic biology DNA cases by at least 824 cases by the end of the award period.

[Return to Page 1](#)

FY13 Recipient Name: Pennsylvania State Police

Award Number: 2013-DN-BX-0097

Award Amount: \$1,359,857

Abstract: This proposal will provide funding for overtime to enable the PSP-BFS to screen backlog serology cases for potential DNA analysis and to provide overtime for the analysis of DNA backlogged cases. Funds are requested for equipment and supplies to continue to streamline techniques to maximize throughput in the analysis of casework samples. The overtime is for the serology sections in the six (6) regional laboratories to screen evidence for DNA analysis and for the Forensic DNA Division to complete the DNA analysis. This proposal will provide funding for the PSP-BFS to utilize overtime to process, analyze, review and upload convicted offender samples analyzed in-house in order to input the genetic profiles into CODIS within 30 days of receipt. Administrative funds are also requested for overtime for the grant point of contact/DNA Technical Leader to do the administrative tasks of managing this award, which is above and beyond her normal duties. Administrative funds are requested for administrative overtime for the Management Technician to handle the overtime records, ordering process, and data management which is above and beyond her normal duties.

The PSP-BFS is backlogged in each of its six (6) regional crime laboratories and its Forensic DNA Division. Overtime will be used to control and potentially reduce or eliminate these backlogs. The PSP-BFS is no different than many forensic laboratories throughout the country that experience large backlogs due to increasing casework demands and rapidly expanding laws. The continued level of case submissions, coupled with resignations, time spent on validations, training, and maternity/sick leaves has made it difficult to reduce turnaround time. The PSP-BFS remains dedicated to reducing its current average turnaround time in both the screening and DNA analysis while increasing the number of cases processed per month per analyst.

[Return to Page 1](#)

FY13 Recipient Name: Instituto de Ciencias Forenses (PR)

Award Number: 2013-DN-BX-0099

Award Amount: \$672,611

Abstract: The Puerto Rico Institute of Forensic Sciences (PRIFS) is an autonomous, full-service forensic facility and currently serves the U.S. Citizens of Puerto Rico and stakeholders at the federal and local levels. Currently, the Puerto Rico Institute of Forensic Sciences has an existing forensic DNA Laboratory, which is fully accredited by ASCLD-LAB and the FBI. The proposed goals for this funding are to continue reducing Casework and Convicted Offender (CO)/Arrestee backlogs and increase throughput. FY2013 DNA Backlog Reduction Program funding will be used to retain some of the currently employed personnel: three (3) forensic serologists and four (3) technicians, as well as for overtime pay for in-house and transitory/contracted analysts and serologists. Funding will also be used to employ on a full-time basis two (2) forensic serologists and four (4) technicians for a 6-month period. A minimum of 124 forensic cases will be analyzed based on supplies/overtime funding requested; whereas a minimum of 1,815 CO/Arrestee single-source samples will be outsourced to virtually eliminate this type of backlog at the Institute when outsourcing under this proposal is completed. In lieu of the funding requested for personnel retention, a minimum of 96 additional forensic cases will be analyzed. Funds will also be used for attendance of personnel to the CODIS and PROMEGA Conferences and registration and workshop fees.

Funding is also requested for the acquisition of a 3500 Genetic Analyzer (8 capillaries) and a RT-PCR-7500. Each unit will be dedicated to CO and Casework samples. The 3100 Genetic Analyzer we currently have will be given as a tradein for the purchase of the 3500 Genetic Analyzer. Funds are also being requested for the Gene Mapper IDX software and extra licenses, which will enhance the number of stations available to personnel and thus enhance sample/genotype data analysis for any given type of analysis in preparation for the entrance into CODIS and uploading into NDIS. A CODIS Consulting Services by a bona-fide CODIS consultant who currently works in an ASCLD-LAB/FBI accredited laboratory is requested to provide continuity to this important service and future aggressive efforts to eliminate CO/Arrestee backlog. In addition, funds awarded will be used to provide in-house continuing-education training to analysts during five days. Lastly, funds will be used for acquisition of supplies with which to carry out the proposed backlog reductions. All CO/Arrestee single-source genetic profiles obtained herein will be revised on a timely fashion, and, if NDIS Acceptance Criteria is met, transferred to CODIS and uploaded to NDIS within 90 days of their receipt from the outsourcing vendor.

[Return to Page 1](#)

FY13 Recipient Name: Rhode Island Department of Public Safety

Award Number: 2013-DN-BX-0069

Award Amount: \$250,000

Abstract: The Rhode Island Department of Health, Forensic Sciences Laboratory (RIDOH-FSL) serves the entire state of Rhode Island, with a population of approximately 1 million. Agencies served include state and municipal police, the Office of the State Medical Examiner, Attorney General, and other law enforcement agencies. The laboratory is divided into four sections: Drug Chemistry, Forensic Toxicology, Breath Analysis/Evidence, and Forensic Biology/CODIS. The Laboratory is the sole Forensic DNA laboratory and CODIS site in the state, and casework is submitted by more than 40 stakeholders. Database collections are carried out by RIDOH-FSL staff at the RI Adult Corrections Institution and a separate probation collection office. The Laboratory is accredited under ISO 17025 standards by Forensic Quality

Services, Inc., and undergoes external audits every two years as required by the FBI's DNA Quality Assurance Standards. The federal funding from this award will help achieve the following goals:

1. Reduce the forensic DNA case backlog by funding a full-time Forensic Scientist to screen DNA casework.
2. Increase throughput of both casework and database functions by funding a Laboratory Technician to perform CODIS sample collection and processing, and casework functions as they relate to evidence management.
3. Provide required continuing education for each DNA analyst through training and travel.
4. Increase the capacity of the laboratory in both casework and CODIS with the purchase of new genetic analyzer software, direct amplification kits, and convicted offender collection kits.

The RIDOH-FSL expects to reduce the DNA casework backlog by at least 90 cases, and to be able to process incoming cases within an average 30-day timeframe, assuming no changes in staff or workload. We believe that making the long-term investment in personnel will increase the overall efficiency of our laboratory, thereby reducing the backlog of DNA casework. The laboratory technician will maintain our CODIS collections in real time and we expect to decrease the turnaround time to be less than 30 days.

[Return to Page 1](#)

FY13 Recipient Name: Beaufort County Council (SC)

Award Number: 2013-DN-BX-0102

Award Amount: \$100,000

Abstract: The Beaufort County Sheriff's Office, Forensic Services Laboratory (BCSO-FSL) provides forensic DNA testing of evidence from criminal investigations for all law enforcement agencies within Beaufort County, South Carolina with funding provided by the Beaufort County Council. The laboratory was accredited by Forensic Quality Services in 2011 under ISO 17025; following accreditation, the number of submissions to the laboratory increased significantly as the laboratory began accepting cases with unknown suspects. Federal funding will be used for the following goals:

1. Reduce the backlog of forensic DNA/biology cases.
2. Increase the capacity of the laboratory.
3. Upgrade outdated software and instrument operating systems.
4. Prepare the laboratory for the expansion of the CODIS core loci.
Maintain laboratory capabilities through purchase of a service contract for new equipment.

The BCSO-FSL expects to reduce the turnaround time to fewer than 100 days, increase the productivity of each analyst to at least 70 samples per month, and process at least 17 backlogged cases from law enforcement agencies within Beaufort County.

[Return to Page 1](#)

FY13 Recipient Name: County of Greenville (SC)

Award Number: 2013-DN-BX-0103

Award Amount: \$215,000

Abstract: The County of Greenville is the agency that is responsible for analyzing evidential material associated with criminal investigations for all local law enforcement agencies and the coroner's office within the County of Greenville, South Carolina. The County of Greenville operates one forensic science laboratory under the Greenville County-Department of Public Safety (GC-DPS). The County of Greenville designates the GC-DPS as the agency responsible for conducting DNA analysis on DNA samples collected from all casework requested by the Greenville County Sheriff's Office and the Greenville City Police Department. The GC-DPS forensic DNA Laboratory began receiving and processing forensic biology/DNA cases from the two agencies listed above after the accreditation date of March 16, 2011. The County of Greenville's current budgetary constraints prevent the GC-DPS forensic DNA Laboratory from offering free services to neighboring counties and municipalities in the upstate region of South Carolina. Although a fee-for-service is available to these agencies, their budgetary constraints have hindered them from using the GC-DPS forensic DNA Laboratory. The Federal funding from this award will be used for the following goals:

1. Expand services to regional upstate S.C. agencies at a no-cost basis, increasing overall capacity of GC-DPS forensic DNA Laboratory with forensic biology/DNA cases from regional agencies.
2. Reduce the backlog of forensic biology/DNA cases.
3. Provide external audit funding to meet accreditation requirements.
4. Increase speed and quality of DNA mixture interpretation of forensic biology/DNA cases with addition of TrueAllele software.

The GC-DPS forensic DNA Laboratory expects to analyze at least 118 forensic biology and DNA cases with Overtime and Supply funds over the award period. The agency also expects to increase the capacity of each analyst to at least 25 samples per month.

[Return to Page 1](#)

FY13 Recipient Name: Richland County Government (SC)

Award Number: 2013-DN-BX-0051

Award Amount: \$151,400

Abstract: The Richland County Sheriff's Department is currently seeking funds to enhance its capacity for DNA analysis through the FY 2013 DNA Backlog Reduction Program Formula Grant. With the implementation of this grant, the following goals will be achieved: reduction of backlogged DNA cases and increased laboratory capacity, with the objective of an overall reduction in violent and nonviolent crimes in Richland County through a continuation of current analyst throughput (42 cases/month). Without the grant-funded reemployment of the full-time analyst and the full-time technician, laboratory case throughput will be reduced by approximately 30 percent. The project plan/method is to utilize the grant-funded full-time analyst and full-time technician, along with the two county-funded full-time DNA analysts and existing laboratory infrastructure, to coordinate and process DNA backlogged cases during the grant period. Annual training for the DNA Analyst and DNA Technician will allow for continuing education. Laboratory capacity will be increased by the purchase of an improved alternate light source and upgraded computer technology. The required external quality

assurance audit of the DNA casework unit will be conducted during this period by outside contractors awarded through a competitive bid process.

[Return to Page 1](#)

FY13 Recipient Name: South Carolina Law Enforcement Division

Award Number: 2013-DN-BX-0075

Award Amount: \$1,159,816

Abstract: The South Carolina Law Enforcement Division (SLED) is responsible for the majority of DNA analysis requests for the state of South Carolina. The SLED DNA Laboratory is an NDIS participant lab in good standing and is eligible to upload appropriate profiles to NDIS. SLED proposes to maintain increased DNA staff through utilization of these grant funds and to process Database samples with the supplemental funding provided by the 2013 award.

This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases. This will be accomplished by utilizing these funds for overtime salaries for DNA personnel, on-going support of grant-funded DNA personnel, and outsourcing of backlogged cases to qualifying fee-for-service laboratories.
2. Provide continuing education for DNA analysts and external training for new analysts and technicians who will have recently started accepting cases. Educational information and new technologies presented in these training events enhance the lab's capabilities in implementing new DNA methodologies and increasing throughput through exposure to novel automation and techniques.
3. Funds will also be used to obtain a contract with an approved vendor to perform the required DNA external audit.
4. The supplemental funding provided by this award will allow the SLED DNA Database Laboratory to process 3,200 database samples that will be submitted to NDIS. The funds will be used to purchase the amplification kits needed for the analysis of these samples. The database will also purchase collection supplies for approximately 15,089 samples using this award.

While many variables determine the number of backlogged cases, through the use of overtime and grant-funded personnel internally, and by outsourcing analysis on property crimes externally, SLED expects to reduce the DNA case backlog by the end of the award period. Funding on this award will allow us to analyze 300 cases using overtime and federally funded supplies; and, once trained, the analysts funded by this award will have access to overtime funds requested on this award and will work cases, as well. Additionally, we anticipate outsourcing approximately 325 cases using these funds.

[Return to Page 1](#)

FY13 Recipient Name: South Dakota Office of the Attorney General

Award Number: 2013-DN-BX-0001

Award Amount: \$250,000

Abstract: The South Dakota Forensic Laboratory has enjoyed a 30-90 day turnaround time on DNA cases for several years now. This has largely been accomplished through the utilization of NIJ funding. Renewed funding will allow us to continue purchasing supplies for working cases

and maintain a consistent turnaround time. Funding of this grant will provide funding for five DNA examiners to receive their annually required DNA training. Additionally, grant funds will continue offender DNA database sample analysis at an accredited fee-for-service (vendor) laboratory. This arrangement is the most cost-effective and efficient process for the SDFL and NIJ. All samples were uploaded to CODIS within 10 working days of data receipt. The average number of days from offender sample receipt to CODIS entry is approximately 45 days.

[Return to Page 1](#)

FY13 Recipient Name: Tennessee Bureau of Investigations

Award Number: 2013-DN-BX-0113

Award Amount: \$2,351,154

Abstract: The Forensic Services Division of the Tennessee Bureau of Investigation (TBI) is the agency that is responsible for analyzing evidentiary material associated with criminal investigations for all state and local law enforcement agencies within the state of Tennessee. The TBI Forensic Services Division is composed of three crime laboratories located in Nashville, Knoxville, and Memphis. The TBI is headquartered in Nashville. Knoxville and Memphis are the two regional laboratories. The TBI is an approved NDIS participating laboratory, which allows for the upload of acceptable DNA profiles into the FBI CODIS database from all convicted felons, registered sex offenders, and individuals arrested for certain violent felony offenses.

The TBI is facing continuing budgetary constraints, which affect the ability to analyze casework as well as the ability to analyze all convicted felon, sex offender registry, and arrestee samples collected across the state. Funding from this award will be used for the following goals:

1. Maintain or decrease the current backlog of casework samples.
2. Maintain the employment of contracted employees in each of the state laboratories.
3. Continue to maintain current instrumentation and systems.
4. Reduce the anticipated backlog of DNA database samples, both Convicted Offender/Sex Offender registry and Arrestee.
5. Provide the required continuing education for each analyst.
6. Purchase certain pieces of equipment and items needed in order to prepare for the start-up phase of insourcing of Convicted Offender and Arrestee DNA Profiling.

Currently, the three TBI DNA units have a collective turnaround time of approximately 156 days for all casework (125 days per case for DNA analysis), with a collective 66 samples worked per analyst per month (33 DNA samples worked per analyst per month). The TBI also expects to outsource 3,500 Convicted Offender and 15,000 Arrestee samples for processing using grant funding, with at least 3,000 reviewed using overtime funds prior to upload to NDIS.

[Return to Page 1](#)

FY13 Recipient Name: City of Austin (TX)

Award Number: 2013-DN-BX-0083

Award Amount: \$204,867

Abstract: The City of Austin is a home-rule municipality situated in the Travis, Williamson and Hays Counties of Texas. The City of Austin Police Department (APD), Forensic Sciences Division Crime Laboratory provides forensic and investigative services to over 812,000 persons residing within 307 square miles. In 2004, the city opened a state-of-the-art forensic facility, and, in 2005, received ASCLD/LAB Legacy Accreditation in the areas of biology, toxicology, controlled substances, firearms, latent print, and crime scene. In 2012, the APD Crime Lab underwent successful ASCLD/LAB internal Legacy and external FBI audits. The laboratory is preparing for ASCLD/LAB ISO accreditation, with an external audit planned in fall of 2014.

With this application, the City of Austin requests \$204,867 in grant funding from the U.S. Department of Justice, Office of Justice Programs, National Institute of Justice FY 2013 Forensic DNA Backlog Reduction Program for a proposed project period of October 1, 2013 to March 31, 2015. The goals of this program are to reduce DNA casework backlogs, to improve the throughput of the DNA Section, and to provide required continuing education for existing city-funded forensic DNA analysts. If funding is awarded, the program anticipates improvements in the APD Crime Lab DNA Section by purposing funds for overtime, supplies, training, and software costs. The City of Austin requests grant funding in the amount of \$44,905 to allow existing laboratory employees to work on an overtime basis; \$19,319 to purchase essential supplies; \$5,640 to send three DNA Section laboratory analysts to a Promega meeting; and, \$135,003 for software upgrades.

The impact of funding from the National Institute of Justice would be significant and would include a reduction in DNA casework backlogs by a minimum 177 cases; a 10% increase in DNA Section throughput; and the completion of required training for DNA Section analysts.

[Return to Page 1](#)

FY13 Recipient Name: City of Fort Worth (TX)

Award Number: 2013-DN-BX-0058

Award Amount: \$169,979

Abstract: The City of Fort Worth is submitting an application for a grant under the DNA Backlog Reduction grant program in the amount of \$169,979 to fund the purchase of equipment, validation services, equipment maintenance, software upgrades, creation of Laboratory Information Management System (LIMS) worksheets, and professional development training. The Fort Worth Police Department (FWPD) Crime Lab is a unit of local government laboratory that primarily serves the City of Fort Worth Police Department and the Tarrant County District Attorney's Office. The City of Fort Worth represents a population of approximately 757,810 citizens. The Fort Worth Police Department Crime Lab is a multi-discipline crime lab that offers Forensic Biology and DNA profiling. In 2012 the Fort Worth Police Department submitted a total of 435 submissions for evidence screening and/or DNA analysis.

Problem Statement and Data:

The DNA Unit in the FWPD Crime Lab is relatively new, having been ASCLD/LAB-International accredited in June 2012. The Biology Unit was also successfully audited against the Federal Bureau of Investigation, Quality Assurance Standards at that time. Prior to June 2012, all FWPD DNA analyses were either outsourced to an accredited vendor agency or worked by the University of North Texas Health Science Center (UNT-HSC). Currently, the lab

employs one serology/DNA trainee, two fully qualified evidence screening analysts who are in the midst of training to become fully qualified DNA analysts, and two fully qualified DNA analysts, one of which is the technical leader. Our ability to turn around a high volume of casework is limited until January 2014, when we anticipate the DNA trainee(s) will become fully qualified. Between August 2012 and December 2012, the unit has screened and conducted full DNA profiling on 55 cases. The Unit also outsourced approximately 175 cases. In order to reduce the turnaround time for forensic DNA samples to be uploaded into CODIS, reduce backlog cases, increase throughput of DNA samples, reduce the need to outsource casework, and enhance the developmental training of qualified analysts and trainees, additional funds are needed to purchase equipment and equipment validation services, CODIS terminal hardware equipment, and creation of electronic DNA worksheets compatible with our current Laboratory Information Management System (LIMS).

[Return to Page 1](#)

FY13 Recipient Name: City of Houston (TX)

Award Number: 2013-DN-BX-0067

Award Amount: \$1,233,415

Abstract: The Houston Police Department Crime Lab is responsible for analyzing evidential material associated with criminal investigations for the Houston Police Department. The Houston Police Department is the largest police department in the state of Texas. The Houston PD Crime Lab is primarily responsible for analyzing violent offenses and a much smaller number of non-violent cases such as burglaries using DNA technology. The HPD Crime Lab, in an effort to be compliant with Texas Senate Bill No. 1636, must address approximately 6,600 sexual assault kits that had been stored in the HPD property room but not previously tested, along with all new and incoming cases, totaling approximately 10,000 cases. The HPD Crime Lab receives approximately 1,000 new sexual assault kits/year. The Federal funding from this award will be used for the following goals:

1. Complete reviews on 3,080 cases that have been outsourced in an effort to fully deplete the backlog in the HPD Property Room and HPD Crime Lab. A backlogged case is one that is not completed by report within 30 days of submission to the lab. Approximately 10,000 cases will be tested by vendor labs. These cases are currently being returned and will continue to be returned through May or June, 2014. These reviews will result in CODIS entries, where applicable. Overtime reviews associated with this grant will be strictly limited to cases tested using funds other than DNA Backlog Reduction Program awards.
2. Procure additional technology and equipment, including a PCR amplification kit that includes the additional NDIS-approved loci, such as the Globalfiler kit, or other NDIS-approved PCR amplification kit, 3500xL HID Genetic Analyzers which enable use of this new technology, a third 7500 Real Time PCR System, and DNA data analysis software.
3. Invest in the service contracts, validation, and training of the new technology and equipment so that analysts can maintain productivity.
4. Provide access to outside training for DNA analysts to ensure analysts remain abreast of current trends and technologies in the field and satisfy continuing education requirements.
5. Reduce the forensic DNA case backlog through outsourcing property-crime cases.

FY13 Recipient Name: Bexar County (TX)

Award Number: 2013-DN-BX-0072

Award Amount: \$107,560

Abstract: As part of our ongoing effort to advance the workload capacity and reduce the backlog of pending forensic Serology/DNA casework at the Bexar County Criminal Investigation Laboratory (BCCIL), an ASCLD/LAB-accredited laboratory since 1998 (ISO 17025 accredited as of January 2009), and to better serve our community, we propose continuing the development and implementation of a DNA backlog reduction program through the hiring of two part-time temporary forensic serologists to screen evidence, and free trained and qualified DNA analysts to focus on processing and analyzing DNA samples, rather than screening evidence.

The Assistant Crime Laboratory Director (ACLD) will manage and monitor this capacity enhancement program. The ACLD, acting as the Grant Manager and Point of Contact, will compile and send all necessary progress reports to the appropriate agencies.

FY13 Recipient Name: Dallas County (TX)

Award Number: 2013-DN-BX-0089

Award Amount: \$698,382

Abstract: The project will address the need for improved and expanded DNA testing capabilities in a local forensic DNA laboratory. The goal of the project is to increase testing capacity in both evidence screening and DNA analysis. As a consequence of increased testing capacity, it is expected that the turnaround time for testing will be reduced. As part of the project, three grant-funded analysts will be hired. One analyst will be hired and trained to perform evidence screening and serological analysis; it is anticipated that this analyst will process approximately 270 cases during the grant period. The activities of this analyst will both increase the laboratory's testing capacity in evidence screening and allow several regular staff members to participate in training in DNA analysis, thereby increasing the laboratory's DNA testing capacity. Two grant-funded analysts will perform validation of instruments and test procedures for DNA sample processing. A new-generation, high-throughput capillary electrophoresis instrument will be purchased and validated for casework. Two new procedures will be validated for use in casework: 1) a procedure for standard DNA profiling using a single amplification kit that has recently been approved by the NDIS Procedures Board (Promega's Powerlex® Fusion PCR STR kit); and 2) a procedure for DNA profiling of samples containing degraded DNA (Life Technologies's AmpFISTR® Minifiler PCR STR kit). These procedures will be validated both for manual processing and for processing using existing robotic instrumentation. Validation of the equipment and procedures will alleviate process bottlenecks. By increasing the number of analysts performing DNA testing and by alleviating process bottlenecks, it is expected that the overall testing capacity of the laboratory will be increased.

FY13 Recipient Name: Harris County (TX)

Award Number: 2013-DN-BX-0101

Award Amount: \$471,702

Abstract: The goal of this proposed project is to reduce our current number of backlogged cases and to reduce our turnaround time to 60 days. The use of funding from the Backlog Reduction program will assist the Harris County Institute of Forensic Sciences (HCIFS) Forensic Genetics laboratory by increasing the laboratory's DNA casework capacity. Funding will improve the laboratory's ability to assist in criminal and death investigations. The HCIFS Forensic Genetics Laboratory had approximately 1,200 cases available for DNA testing as of December 31, 2012. With funds requested through this grant, we plan to decrease turnaround time and reduce the backlog of DNA cases. Additionally, we will continue the implementation of processes begun in the current project year that will improve our efficiency and increase the number of samples that can be completed per analyst. We estimate we will be able to analyze 10% more DNA cases within the upcoming grant period than is possible currently, while reducing our average turnaround time from 76 days to 60 days. To maintain and increase our capacity, we plan to continue to employ contract personnel and purchase DNA testing supplies not provided by our in-house budget. Funds from this award will also be used to provide scientific continuing education to DNA Analysts to meet our accreditation requirement for continued DNA training.

[Return to Page 1](#)

FY13 Recipient Name: State of Texas

Award Number: 2013-DN-BX-0077

Award Amount: \$2,842,596

Abstract: The Texas Department of Public Safety (DPS) operates eight (soon to be nine) forensic DNA testing laboratories, and the DNA database laboratory for Texas. To reduce the backlog of forensic DNA cases, as well as the backlog of DNA database samples, we propose to provide overtime pay to around 70 existing, trained DNA scientists to conduct DNA testing on forensic cases during overtime hours (hours actually worked over 40 hours per week) of an average of 180 hours each over twelve months of this project. Also, we project using grant funds to acquire DNA kits and other consumable supplies to allow for testing. In addition, we propose to retain twelve personnel, hired and trained during the previous grant period, to perform DNA testing of forensic cases. These personnel will employ accepted DNA testing procedures, and follow the FBI's quality assurance standards. In addition, we will request some funds to acquire a limited amount of equipment, to further expand our capacity. Also, we request funds to pay for both travel and registration fees for these DNA personnel to attend continuing education.

The state of Texas has provided the Texas DPS with nine new and larger DNA laboratory facilities. With the capacity enhancement funds provided in this and earlier NIJ grants, Texas DPS now has the capacity to perform DNA testing in some 7,000 forensic cases per year. With the funds in this grant, we expect to be able to complete DNA testing on an additional 1,500 forensic DNA case and on 9,000 additional DNA database (offender) samples during the duration of this grant.

[Return to Page 1](#)

FY13 Recipient Name: University of North Texas Health Science Center at Fort Worth

Award Number: 2013-DN-BX-0062

Award Amount: \$518,302

Abstract: The University of North Texas Center for Human Identification (UNTCHI) is a State of Texas criminal justice agency providing DNA analysis for both forensic cases as well as for the identification of missing persons and human remains. UNTCHI is accredited by ANSI-ASQ National Accreditation Board-FQS under the requirements of ISO 17025 and the FBI's Quality Assurance Standards. UNTCHI provides DNA analysis to law enforcement agencies throughout the State of Texas at no cost, utilizing funds from the DNA Backlog Reduction awards. The DNA analysis is primarily for sexual assaults, homicides, aggravated assaults, and property crime cases. In addition, UNTCHI has served as a local crime laboratory for the City of Fort Worth and the Tarrant County District Attorney's Office, performing DNA testing and providing expert testimony. In addition, more than 50 other counties within the State of Texas have submitted cases for DNA analysis. UNTCHI functions as an adjunct laboratory to the Texas Department of Public Safety State Crime Laboratory (TXDPS). TXDPS and other agencies within the State routinely refer cases requiring mitochondrial DNA (mtDNA) analysis, sexual assaults involving products of conception, and those that require familial and/or kinship relatedness statistical analysis.

A variety of DNA technologies are utilized, including autosomal STRs, mini-autosomal STRs (MiniFiler™ System), Y chromosome STRs and mitochondrial DNA analysis. Cases involving degraded samples or samples with a low-level male contributor, which typically cannot be detected with traditional autosomal STR systems, have benefited from these types of testing. UNTCHI continues to work closely with both law enforcement and prosecuting agencies to select only the most probative samples for DNA testing. This not only provides a form of education to our submitting agencies, but also helps to improve laboratory productivity and cost effectiveness. The federal funding provided through this award will be used to achieve the following goals and objectives:

Goal 1: Continue to process and analyze UCR Part 1 Crime Cases submitted to UNTCHI.

Objectives:

- A. Fund the salaries of 3 analysts, 1 forensic technologist and 50% of an evidence custodian.
- B. Complete a minimum of 500 cases.
- C. Purchase supplies to work forensic backlog cases.

Goal 2: Reduce the number of days from the time a sample is received to the time a report is sent to the submitting agency.

Objectives:

- A. Complete a minimum of 8 cases per month per analyst.
- B. Continue to reduce the average turnaround time for a case which is currently 60 days, from receipt to reporting.

Goal 3: Reduce the number of backlogged DNA cases

Objective: Reduce our current existing backlog and complete as many new submissions as possible under this FY 2013 award. The number of backlogged forensic cases found on

October 1, 2013 will serve as the baseline for this award. At the end of the last reporting period, December 2012, the backlog was 57 cases > 30 days.

In collaboration with the TXDPS, UNTCHI is eligible for \$518,302 of the available funding allotted to the State of Texas. UNTCHI does not receive any state funds for conducting DNA Forensic Casework testing. Funding provided through this program will allow UNTCHI to pay the salaries of three forensic analysts, one forensic technologist and 50% of an evidence custodian's salary. Funding will also be utilized for the purchase of reagents and supplies required to analyze forensic cases submitted to UNTCHI. With continued process improvements, these funds will allow UNTCHI to reduce the current DNA casework backlog as well as complete the DNA analysis on a minimum of 500 cases. By the end of the award period, it is anticipated that each analyst will complete a minimum of 8 cases per month or approximately 16 samples per analyst per month, with a turnaround time of less than 60 days per case. Turnaround time includes both mitochondrial and STR analysis. Approximately 3–5% of cases submitted to UNTCHI require mtDNA analysis, which is more laborious and time-consuming as compared with traditional STR testing. All eligible forensic DNA profiles will be entered into CODIS (SDIS) and uploaded into NDIS where applicable.

[Return to Page 1](#)

FY13 Recipient Name: Utah Department of Public Safety

Award Number: 2013-DN-BX-0115

Award Amount: \$374,634

Abstract: The mission of the Utah Department of Public Safety-Bureau of Forensic Services (UBFS) is to provide a safe and secure environment for the citizens of Utah through the application of forensic science. The goal of the forensic biology section is to use DNA technology to help agencies achieve case closure. The laboratory provides accurate and sound science during forensic biology and DNA analysis, while striving to maintain a rapid response to analysis requests. UBFS maintains three laboratories throughout the State of Utah – Northern, Southern and Central laboratories. The forensic biology section is located in the Central laboratory and is responsible for analyzing and processing all forensic DNA samples as well as storing, processing, and maintaining all forensic DNA database samples. The UBFS continues to see an increase in case submissions for DNA analysis as well as an increase in the number of samples per case and a continual demand for timely results and reports. UBFS continues to strive to implement new and innovative ways to process cases to help eliminate our case backlog. The Federal funding from this award will be used for the following goals:

1. Reduce the forensic DNA case backlog and decrease case turnaround times by purchasing equipment to help streamline casework, and maintain forensic scientist hired with previous grants.
2. Increase the capacity of the Utah Bureau of Forensic Services by purchasing equipment and service agreements that will aide in the processing of samples.
3. Provide required continuing education by funding training opportunities for DNA analysts.
4. Decrease/maintain CODIS backlog through outsourcing of offender samples.

UBFS anticipates reducing our DNA case backlog by increasing throughput in the biology section. The laboratory expects to process at least 3,000 database samples using Federal funding. The goal of UBFS is to decrease and maintain a turnaround time to less than 45 days, while sample throughput for serology/DNA will increase by 10%.

[Return to Page 1](#)

FY13 Recipient Name: Virginia Department of Forensic Science

Award Number: 2013-DN-BX-0079

Award Amount: \$990,871

Abstract: The Virginia Department of Forensic Science (DFS), an Executive Branch agency, is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the Commonwealth of Virginia. DFS maintains four regional laboratories – the Central Laboratory in Richmond, the Eastern Laboratory in Norfolk, the Western Laboratory in Roanoke, and the Northern Laboratory in Manassas. As required by statute, DFS is also responsible for receiving and analyzing DNA samples collected from Virginia's convicted felons and certain arrestees for inclusion, storage and maintenance in the Virginia DNA data bank. Since July 1, 2011, state law also requires DNA sample collection from individuals convicted of certain misdemeanor sex offenses. Most activities related to the DNA data bank are managed by the DNA Database Unit, which is located at the Department's Central Laboratory.

DFS is requesting funding under this program to maintain the current capacity in its four Forensic Biology Sections, to further increase capacity, and to provide continuing education for DFS Forensic Scientists. DFS is not requesting funding at this time for the DNA Database Unit, as there is currently no backlog of data bank samples. The goals of this grant project are as follows:

1. Maintain the current capacity of the Forensic Biology Section by continuing to fund four fully-qualified forensic scientists and one full-time forensic laboratory specialist, and by purchasing equipment.
2. Further increase capacity in the Forensic Biology Section by hiring one new DNA analyst.
3. Provide the required continuing education for forensic scientists in the Forensic Biology Section.

[Return to Page 1](#)

FY13 Recipient Name: Vermont Department of Public Safety

Award Number: 2013-DN-BX-0002

Award Amount: \$226,013

Abstract: The Vermont Forensic Laboratory (VFL) is located in the Division of Criminal Justice Services in the Department of Public Safety. The VFL is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state of Vermont. The VFL is the only forensic laboratory performing DNA analysis in Vermont. The Statutes of Vermont designates the VFL as the agency responsible for conducting DNA analysis on DNA samples collected from all convicted

felons, some misdemeanor offenders, as well as all felony arraignees in the state of Vermont. The VFL is responsible for storing and maintaining the resultant profiles in the Vermont DNA Data Bank, and uploading qualifying samples to CODIS.

The VFL is facing budgetary constraints. The costs of reagents and kits has gone up, as has the cost of supplies to keep the capillary electrophoresis unit running properly, especially with the advent of consumables with hard-wired expiration dates, at a time when budgets have been reduced. This has placed a burden on both the database and case working sections to maximize runs. The DNA unit lost the unit supervisor, an experienced DNA analyst, unexpectedly. This is resulting in a significant backlog in both casework and database sections. There is one newly hired DNA analyst in training, one serologist who is cross-training in DNA, and one recently hired individual for the DNA casework section. The Federal funding from this award will help to alleviate the training burden and will assist in giving analysts more time and supplies to work forensic casework. This award will be specifically used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Reduce the backlog of DNA database samples.
3. Increase and maintain the capacity and capabilities of the VFL casework unit.
4. Maintain continuing education for all analysts in the lab.

The VFL expects to analyze at least 140 forensic biology and DNA cases (65 with overtime and supplies, and 75 with an additional analyst.) It is estimated that, at most, approximately half (or 70) of these will contain DNA evidence (based on data from cases worked at the laboratory), and, of this 70, approximately 2/3 (~47) will go on through DNA, as determined by case details and eligibility. Any CODIS eligible profiles will be uploaded to CODIS. It expects to test ~800 database samples with the use of overtime and supplies, 700 of which will be unique database samples, the remainder QC and samples requiring reworking.

[Return to Page 1](#)

FY13 Recipient Name: Washington State Patrol

Award Number: 2013-DN-BX-0024

Award Amount: \$1,238,926

Abstract: The Washington State Patrol, through the Crime Laboratory Division, is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state. Under state law (RCW 43.43.756), the Washington State Patrol Crime Laboratory Division (WSPCLD) is the established public provider of Forensic DNA services in Washington State. There are 5 casework DNA laboratories located throughout the state: Seattle, Tacoma, Marysville, Vancouver and Spokane. The CODIS database lab is also located in the same Seattle facility as the Crime Lab. The WSPCLD is facing continuing state budgetary constraints with 5 vacant DNA analyst positions that were not filled in 2012. There are also 7 DNA analysts who are either on or will be on maternity leave in 2013, reducing staffing levels available for casework even further. The Federal funding from this award will help to alleviate this burden as well as assist in giving analysts more time to work forensic casework. This award will be specifically used for the following goals:

1. Minimize and reduce the backlog of DNA case requests.

2. Reduce the backlog of DNA convicted offender database samples.
3. Maintain and increase the capacity of the WSPCLD casework laboratories.
4. Maintain continuing education for casework and database analysts through attendance to national and regional conferences.

The WSPCLD expects to keep the backlog of DNA case requests under 800 at the end of the award period, despite continuing effects of state budgetary constraints. The mean turnaround time is expected to be kept to 90 days or less, and the analyst throughput in the casework sections is expected to increase 5%. The WSPCLD expects to maintain the 40 day mean turnaround time from receipt of CODIS submission.

[Return to Page 1](#)

FY13 Recipient Name: Wisconsin Department of Justice

Award Number: 2013-DN-BX-0028

Award Amount: \$849,590

Abstract: The Wisconsin Department of Justice, Crime Laboratory Bureau (WI DOJ-CLB) is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies within the State of Wisconsin. The WI DOJ-CLB maintains two regional DNA forensic science laboratories – the Madison laboratory and the Milwaukee laboratory. Wisconsin state statute 973.047 designates the WI DOJ-CLB as the agency responsible for conducting analysis on DNA samples collected from all convicted felons and certain other designated offenders. The WI DOJ-CLB is responsible for storing and maintaining the resultant profiles in the Wisconsin DNA Data Bank. The Madison laboratory maintains the DNA Database Unit.

The WI DOJ-CLB is facing budgetary constraints, as well as preparing for a DNA database expansion due to DNA at arrest legislation that has been proposed in the current legislative session. That will exponentially increase the number of DNA database samples the agency will have to analyze. The Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic biology/DNA cases.
2. Reduce the backlog of DNA database samples.
3. Increase overall capacity of the WI DOJ-CLB regional DNA forensic laboratories and improve efficiency.
4. Maintain current laboratory capabilities by replacing aging equipment and purchasing equipment for necessary upgrades.
5. Provide required continuing education to all analysts.

The WI DOJ-CLB expects to analyze 106 forensic biology DNA cases with the use of the supply funds from the grant. The three DNA screener technicians funded by this grant will be used to enhance the forensic DNA in-house capacity by assisting with quality control, reagent preparation, and evidence intake/return. The agency expects to maintain a turnaround time of under 30 days for DNA/biology cases and increase the productivity of each analyst to at least 30 samples per month. Additionally, it expects to outsource at least 2,479 database samples. Equipment purchases will address necessary technological updates and replace outdated existing equipment to ensure WI DOJ-CLB can sustain turnaround times and continue to reduce case backlogs. Supply purchases will assist in expanding capacity. The training funds will ensure that

WI DOJ-CLB DNA analysts maintain their current competencies and expertise while being kept abreast of the latest technological trends in DNA. This correlates directly with enhanced capacity and proficiency.

[Return to Page 1](#)

FY13 Recipient Name: West Virginia State Police

Award Number: 2013-DN-BX-0081

Award Amount: \$396,320

Abstract: The West Virginia State Police Forensic Laboratory (WVSPFL) is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local enforcement agencies within the state of West Virginia. The WVSPFL is a centrally located laboratory in South Charleston, WV. The Code of West Virginia designates the WVSPFL as the agency responsible for maintaining DNA profiles from samples collected from all convicted felons and misdemeanor offenders in the state of West Virginia. The WVSPFL is the state designated CODIS Laboratory. The WVSPFL uses Marshall University Forensic Science Center for the analysis of DNA database samples. The WVSPFL is facing budgetary constraints for the purchase of new equipment, funding continued education for its DNA analysts, and funding a technician and two DNA analysts' positions. The Federal funding from this award will be used for the following goals:

1. Reduce the backlog of forensic DNA cases.
2. Reduce the turnaround time for DNA database samples.
3. Increase and maintain the capacity and capabilities of the WVSP casework laboratory.
4. Maintain continuing education for two analysts in the laboratory.

[Return to Page 1](#)

FY13 Recipient Name: Wyoming Office of the Attorney General

Award Number: 2013-DN-BX-0011

Award Amount: \$250,000

Abstract: The Wyoming State Crime laboratory (WSCL) is the agency that is responsible for analyzing evidential material associated with criminal investigations for all state and local law enforcement agencies and medical examiners within the state of Wyoming. Wyoming State Statute designates the WSCL as the agency responsible for conducting DNA analysis on DNA samples collected from all convicted felony offenders and qualifying sex offenders in the State of Wyoming. The WSCL is responsible for storing and maintaining the resultant profiles in the Wyoming State DNA Database. The WSCL is facing mandatory state budget constraints in the face of an increasing caseload. The loss of one of our most productive DNA analysts in December 2012 has placed an increased burden on the laboratory. This analyst was also the Biology Supervisor, and the supervisor position was not filled due to budget cutbacks. Instead, the supervisor duties were assigned to the quality assurance manager at existing pay, and the remaining analysts have been pressured to fill the increased workload with very little resources. The analyst mentioned above was not the only position in the laboratory that was not re-filled. In December 2012, biology staff were left with additional document scanning duties after one of the administrative staff retired and her position was not filled.

The Federal funding from this award will help to alleviate burdens on the DNA unit as well as assist in giving analysts more time and supplies to work forensic and database casework. The funding will ensure that the laboratory is able to maintain quality through properly maintained equipment, and is able to fund its required biennial DNA audit. This will ensure continued accreditation. The Federal funding from this award will be used for projects with the following goals:

1. Reducing or maintaining the current forensic DNA case backlog through analyst overtime and supply purchases.
2. Reducing the DNA database sample backlog through analyst overtime and supply purchases.
3. Increasing the capacity of the laboratory by purchasing equipment maintenance and maintenance contracts, funding supplies for training analysts and validation, funding our required biennial DNA audit, and by fully funding the employment of one part-time contract technician to assist analysts in both the casework and database laboratories.
4. Providing education opportunities to develop a depth of staff necessary to ensure continued laboratory operation in our current situation of personnel loss.

The WSCL can expect to reduce or maintain the DNA case backlog by the end of the award period. The agency expects to work at least 1196 Offender samples and 106 cases with monies from this solicitation.

[Return to Page 1](#)
