

300.4

PALM BEACH COUNTY
BOARD OF COUNTY COMMISSIONERS
AGENDA ITEM SUMMARY

Meeting Date: November 18, 2008 [x] Consent [] Regular
[] Ordinance [] Public Hearing

Department:
Submitted By: Palm Beach County Sheriff's Office
Submitted For: Palm Beach County Sheriff's Office

I. EXECUTIVE BRIEF

Motion and Title: Staff recommends motion to: (A) Accept on behalf of the Palm Beach County Sheriff's Office a National Institute of Justice Forensic FY 2008 DNA Backlog Reduction Program Grant in the amount of \$412,981 for the period October 1, 2008 through March 31, 2010; and (B) Approve a budget amendment in the amount of \$412,981 increasing the Sheriff's Grant Fund.


Summary: On September 11, 2008, the Palm Beach County Sheriff's Office (PBSO) received an award for the Forensic DNA Backlog Reduction Program. The Forensic Biology Unit (FBU) of PBSO accepts casework evidence from over twenty-nine law enforcement agencies including the Medical Examiner's Office. Funds provided will be used for; salary and benefits for two new full-time entry level Forensic Scientist, equipment, supplies, and validation of new equipment. There is no match requirement associated with this award. Two PBSO allocations are created with this action. No County funds are required in FY 2009. Countywide. (DW)

Background and Justification: The U.S. Department of Justice, Office of Justice Programs (OJP), National Institute of Justice (NIJ) FY 2008 Forensic DNA Backlog Reduction Program furthers the U.S. Department of Justice's mission by offering an opportunity for states and units of local government with existing crime laboratories that conduct DNA analysis to handle, screen, and analyze backlogged forensic DNA casework samples, as well as to improve DNA laboratory infrastructure and analysis capacity, so that forensic DNA samples can be processed efficiently and cost effectively. These improvements are critical to preventing future DNA backlogs and to helping the criminal justice system use the full potential of DNA technology. The Catalog of Federal Domestic Assistance (CFDA) number is 16.741 and the grant number is 2008-DN-BX-K021.

Attachments:

- 1. Budget Amendment
- 2. Cooperative Agreement
- 3. Program Narrative
- 4. Budget Narrative

=====

RECOMMENDED BY:  10/30/08
DEPARTMENT DIRECTOR DATE

APPROVED BY:  11/14/08
COUNTY ADMINISTRATOR DATE

II. FISCAL IMPACT ANALYSIS

A. Five Year Summary of Fiscal Impact:

Fiscal Years	2009	2010	2011	2012	2013
Capital Expenditures	\$277,981				
Operating Costs	\$135,000				
External Revenues	(\$412,981)				
Program Income (County)					
In-Kind Match (County)	0				
Net Fiscal Impact	0				
# Additional FTE Positions (Cumulative)	2				

Is Item Included in Current Budget: YES _____ NO X

Budget Account No.: Fund _____ Agency _____ Org _____ Object _____

Reporting Category _____

B. Recommended Sources of Funds / Summary of Fiscal Impact:

The FY 2008 Forensic DNA Backlog Reduction Program grant is funded through the National Institute of Justice (NIJ). There is no match requirement associated with this award. Two PBSO allocations are created with this action. No County funds are required in FY 2009.

DNA Backlog Reduction Program	\$412,981
Total	\$412,981

III REVIEW COMMENTS

A. OFMB Fiscal and/or Contract Administration Comments:

adwhite 11-6-08
 OFMB *on 11/5/08* *on 11/3/08*

Dr. J. J... 11/7/08
11/6/08 Contract Administration

B. Legal Sufficiency:

[Signature] 11/12/08
 Assistant County Attorney

C. Other Department Review:

 Department Director

This summary is not to be used as a basis for payment.

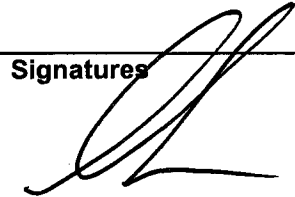

09- 0222

BOARD OF COUNTY COMMISSIONERS
PALM BEACH COUNTY, FLORIDA
BUDGET AMENDMENT

FUND 1152 - Sheriff's Grants Fund

Use this form to provide budget for items not anticipated in the budget.

ACCT.NUMBER	ACCOUNT NAME	ORIGINAL BUDGET	CURRENT BUDGET	INCREASE	DECREASE	ADJUSTED BUDGET	EXPENDED/ ENCUMBERED	REMAINING BALANCE
Revenues								
FY 2008 Forensic DNA Backlog Reduction Program								
160-2148-3129	Federal Grant - Other Public Safety	0	0	412,981		412,981		
	TOTAL REVENUES	0	\$633,939	\$412,981	\$0	\$1,046,920		
Expenditures								
FY 2008 Forensic DNA Backlog Reduction Program								
160-2148-9498	Transfer to Sheriff's Grant Fund	0	0	412,981		412,981		
	TOTAL EXPENDITURES	0	\$633,939	\$412,981	\$0	\$1,046,920		

Palm Beach County Sheriff's Office		Date	11/3/08	By Board of County Commissioners At Meeting of November 18, 2008
INITIATING DEPARTMENT/DIVISION				
Administration/Budget Department Approval		Date	11-6-08	Deputy Clerk to the Board of County Commissioners
OFMB Department - Posted				

11/5/08



Department of Justice
Office of Justice Programs
National Institute of Justice

Cooperative Agreement

PAGE 1 OF 7

1. RECIPIENT NAME AND ADDRESS (Including Zip Code) Palm Beach County Sheriff Office 3228 Gun Club Road West Palm Beach, FL 33406-3001		4. AWARD NUMBER: 2008-DN-BX-K021	
		5. PROJECT PERIOD: FROM 10/01/2008 TO 03/31/2010 BUDGET PERIOD: FROM 10/01/2008 TO 03/31/2010	
1A. GRANTEE IRS/VENDOR NO. 596000786		6. AWARD DATE 09/11/2008	7. ACTION Initial
		8. SUPPLEMENT NUMBER 00	
		9. PREVIOUS AWARD AMOUNT	\$ 0
3. PROJECT TITLE FY2008 Forensic DNA Backlog Reduction Program - Palm Beach County Sheriff Office		10. AMOUNT OF THIS AWARD	\$ 412,981
		11. TOTAL AWARD	\$ 412,981
12. SPECIAL CONDITIONS THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S).			
13. STATUTORY AUTHORITY FOR GRANT This project is supported under FY08(NIJ - COPS DNA/Forensic) Pub. L. No. 110-161, 121 Stat. 1897, 1910; 28 USC 530C			
15. METHOD OF PAYMENT PAPRS			
AGENCY APPROVAL		GRANTEE ACCEPTANCE	
16. TYPED NAME AND TITLE OF APPROVING OFFICIAL Jeffrey L. Sedgwick Acting Assistant Attorney General		18. TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL Rio Bradshaw Sheriff Sheriff Rio L. Bradshaw	
17. SIGNATURE OF APPROVING OFFICIAL 		19. SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL 	19A. DATE 9/23/08
AGENCY USE ONLY			
20. ACCOUNTING CLASSIFICATION CODES FISCAL YEAR FUND CODE BUD. ACT. DIV. OFC. REG. SUB. POMS AMOUNT X B DN 60 00 00 412981			21. HDNSGT0118



Department of Justice
Office of Justice Programs
National Institute of Justice

**AWARD CONTINUATION
SHEET**
Cooperative Agreement

PAGE 2 OF 7

PROJECT NUMBER 2008-DN-BX-K021

AWARD DATE 09/11/2008

SPECIAL CONDITIONS

1. The recipient agrees to comply with the financial and administrative requirements set forth in the current edition of the Office of Justice Programs (OJP) Financial Guide.
2. The recipient acknowledges that failure to submit an acceptable Equal Employment Opportunity Plan (if recipient is required to submit one pursuant to 28 C.F.R. Section 42.302), that is approved by the Office for Civil Rights, is a violation of its Certified Assurances and may result in suspension or termination of funding, until such time as the recipient is in compliance.
3. The recipient agrees to comply with the organizational audit requirements of OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, as further described in the current edition of the OJP Financial Guide, Chapter 19.
4. Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of OJP.
5. Privacy: quality assurance; CODIS/NDIS

The Recipient shall ensure that each DNA analysis conducted under this award is maintained pursuant to all applicable Federal privacy requirements, including those described in 42 U.S.C. section 14132(b)(3).

The Recipient shall ensure that all DNA analyses conducted with funding under this award are performed either (1) by accredited government-owned laboratories, or (2) through accredited fee-for-service vendors. Accreditation must be by a nonprofit professional association of persons actively involved in forensic science that is nationally recognized within the forensic science community.

The Recipient shall ensure that any laboratory that conducts DNA analyses under this program undergoes external audits, not less than once every two years, that demonstrate compliance with DNA Quality Assurance Standards established by the Director of the Federal Bureau of Investigation.

The Recipient agrees to notify NIJ immediately upon any change in the accreditation status of any of its forensic science laboratories that receive funding under this award.

The Recipient shall ensure that all eligible forensic DNA profiles obtained with funding under this award will be entered into the Combined DNA Index System (CODIS), and, where applicable, uploaded to the National DNA Index System (NDIS).

If any government-owned forensic laboratory that will receive funding under this award to conduct DNA analyses is not a member of NDIS, the laboratory must have a written agreement in place with an NDIS-participating laboratory for the resulting eligible forensic DNA profiles to be entered into CODIS, and where applicable uploaded into NDIS.



Department of Justice
Office of Justice Programs
National Institute of Justice

**AWARD CONTINUATION
SHEET**
Cooperative Agreement

PAGE 3 OF 7

PROJECT NUMBER 2008-DN-BX-K021

AWARD DATE 09/11/2008

SPECIAL CONDITIONS

6. (A) No research; nonsupplanting of State or local funds

The Recipient shall ensure that none of the funds provided under this award are used for research or statistical projects or activities as defined by 28 CFR Part 22 or for research as defined by 28 CFR Part 46. Any questions concerning this provision should be directed to the NIJ Program Manager for the award.

The Recipient shall ensure that Federal funds made available through this award will not supplant State or local funds, but instead will be used to increase the amount of funds that would, in the absence of Federal funds, be available from State or local sources for activities funded through this award.

The Recipient agrees to notify NIJ immediately if the Recipient receives new State or local funding for any of the purposes included in the approved application for this award.

(B) Changes in caseload estimates

The Recipient agrees to notify NIJ immediately upon any significant reduction in the Recipient's estimate of the number of backlogged DNA cases that can be analyzed within eighteen months using the funds provided under this fiscal year 2008 award, above and beyond those that will be analyzed using funds from other sources.

7. (A) Quarterly performance metric reports

The Recipient agrees to collect quarterly performance metrics as specified in the FY 2008 Forensic DNA Backlog Reduction grant announcement. The reports for the first and second quarter will be submitted along with the January-June semiannual progress report(s) and the reports for the third and fourth quarter will be submitted with the July-December semiannual progress report(s). The reports shall be submitted to the Office of Justice Programs, Grants Management System.

(B) Final Report -- Forensic DNA Backlog Reduction

The Recipient shall submit a report within 90 days of the end of the award period that, at a minimum, (1) includes a summary and assessment of the program carried out with the funds made available under this fiscal year 2008 award, (2) cites the number of additional backlogged DNA cases that were analyzed and the reduction in the DNA casework backlog as a result of the fiscal year 2008 award, and (3) cites the number of additional DNA casework profiles entered into CODIS, and, where applicable, uploaded to NDIS, as a result of the fiscal year 2008 award. The Recipient shall ensure that all data and information necessary for the report are collected throughout the award period.

8. The recipient agrees to submit quarterly financial status reports to the Office of Justice Programs using Standard Form SF 269A on the Internet at <https://grants.ojp.usdoj.gov>. These reports shall be submitted on-line not later than 45 days after the end of each calendar quarter. The final report shall be submitted not later than 90 days following the end of the grant period.

9. The recipient shall submit semiannual progress reports. Progress reports shall be submitted within 30 days after the end of the reporting periods, which are June 30 and December 31, for the life of the award. These reports will be submitted to the Office of Justice Programs, on line-through the Internet at <https://grants.ojp.usdoj.gov/>.



Department of Justice
Office of Justice Programs
National Institute of Justice

**AWARD CONTINUATION
SHEET**
Cooperative Agreement

PAGE 4 OF 7

PROJECT NUMBER 2008-DN-BX-K021

AWARD DATE 09/11/2008

SPECIAL CONDITIONS

10. Due to the substantial Federal involvement contemplated in completion of this project, the National Institute of Justice (NIJ) has elected to enter into a cooperative agreement rather than a grant. This decision is based on NIJ's ongoing responsibility to assist and coordinate projects that deal with DNA analysis and capacity enhancement. NIJ will provide input and re-direction to the program, as needed, in consultation with the Recipient, and will actively monitor the project by methods including but not limited to ongoing contact with the Recipient. In meeting programmatic responsibilities, NIJ and the Recipient will be guided by the following principles: Responsibility for the day-to-day operations of this project rests with the Recipient in implementation of the Recipient's approved proposal, the Recipient's budget (as approved by OJP and NIJ), and the terms and conditions specified in this award. Responsibility for general oversight and redirection of the project, if necessary, rests with NIJ. In addition to its programmatic reporting requirements, the Recipient agrees to provide necessary information as requested by OJP and NIJ. These information requests may include, but are not limited to specific submissions related to: performance, including measurement of project outputs/outcomes; meeting performance specifications; developmental decision points; changes in project scope or personnel; budget modifications and/or coordination of related projects.

Handwritten initials



Department of Justice
Office of Justice Programs
National Institute of Justice

**AWARD CONTINUATION
SHEET**
Cooperative Agreement

PAGE 5 OF 7

PROJECT NUMBER 2008-DN-BX-K021

AWARD DATE 09/11/2008

SPECIAL CONDITIONS

11. Within 45 days after the end of any conference, meeting, retreat, seminar, symposium, training activity, or similar event funded under this award, and the total cost of which exceeds \$20,000 in award funds, the recipient must provide the program manager with the following information and itemized costs:

- 1) name of event;
- 2) event dates;
- 3) location of event;
- 4) number of federal attendees;
- 5) number of non-federal attendees;
- 6) costs of event space, including rooms for break-out sessions;
- 7) costs of audio visual services;
- 8) other equipment costs (e.g., computer fees, telephone fees);
- 9) costs of printing and distribution;
- 10) costs of meals provided during the event;
- 11) costs of refreshments provided during the event;
- 12) costs of event planner;
- 13) costs of event facilitators; and
- 14) any other costs associated with the event.

The recipient must also itemize and report any of the following attendee (including participants, presenters, speakers) costs that are paid or reimbursed with cooperative agreement funds:

- 1) meals and incidental expenses (M&IE portion of per diem);
- 2) lodging;
- 3) transportation to/from event location (e.g., common carrier, Privately Owned Vehicle (POV)); and,
- 4) local transportation (e.g., rental car, POV) at event location.

Note that if any item is paid for with registration fees, or any other non-award funding, then that portion of the expense does not need to be reported.

WB



Department of Justice
Office of Justice Programs
National Institute of Justice

**AWARD CONTINUATION
SHEET**
Cooperative Agreement

PAGE 6 OF 7

PROJECT NUMBER 2008-DN-BX-K021

AWARD DATE 09/11/2008

SPECIAL CONDITIONS

OJP will provide further instructions regarding the submission of this data at a later time.

12. The recipient agrees to cooperate with any assessments, national evaluation efforts, or information or data collection requests, including, but not limited to, the provision of any information required for the assessment or evaluation of any activities within this project.
13. Pursuant to 28 C.F.R. Part 18, OJP may suspend or terminate funding under this award, at any time before the completion of the project funded by this award, for the recipient's failure to comply with these special conditions or with the project's goals, plans and methodology set forth in the approved application. The recipient will be unable to draw down funds until OJP determines that the recipient is in compliance.
14. To assist in information sharing, the award recipient shall provide the grant manager with a copy of all interim and final reports and proposed publications (including those prepared for conferences and other presentations) resulting from this agreement. Submission of such materials prior to or simultaneous with their public release aids NIJ in responding to any inquiries that may arise. Any publications (written, visual, or sound) - excluding press releases and newsletters - whether published at the recipient's or government's expense, shall contain the following statement: This project was supported by Award No. _____ awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings, and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect those of the Department of Justice.

NIJ defines publications as any planned, written, visual or sound material substantively based on the project, formally prepared by the award recipient for dissemination to the public.

15. Recipient acknowledges that the Office of Justice Programs reserves a royalty-free, non-exclusive, and irrevocable license to reproduce, publish, or otherwise use, and authorize others to use (in whole or in part, including in connection with derivative works), for Federal purposes: (1) the copyright in any work developed under an award or subaward; and (2) any rights of copyright to which a recipient or subrecipient purchases ownership with Federal support.

Recipient acknowledges that the Office of Justice Programs has the right to (1) obtain, reproduce, publish, or otherwise use the data first produced under an award or subaward; and (2) authorize others to receive, reproduce, publish, or otherwise use such data for Federal purposes.

It is the responsibility of the recipient (and of each subrecipient, if applicable) to ensure that this condition is included in any subaward under this award.



Department of Justice
Office of Justice Programs
National Institute of Justice

**AWARD CONTINUATION
SHEET**
Cooperative Agreement

PAGE 7 OF 7

PROJECT NUMBER 2008-DN-BX-K021

AWARD DATE 09/11/2008

SPECIAL CONDITIONS

16. The Recipient agrees to comply with all Federal, State, and local environmental laws and regulations applicable to the development and implementation of the activities to be funded under this award. Environmental Assessment (EA): The Recipient agrees and understands that funded activities (whether conducted by the recipient or subrecipients or contractors) may require the preparation of an environmental assessment (EA) as defined by the Council on Environmental Quality's Regulations for implementing the Procedural Provisions of the National Environmental Policy Act (NEPA), found at 40 CFR Part 1500. An EA is a concise public document that briefly provides sufficient analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact for the proposed activity. If in completing an EA for a proposed activity, potential adverse environmental impacts are identified, the EA will serve as a vehicle for developing either alternative approaches or mitigation measures for avoiding or reducing the identified adverse environmental impacts. Modifications: Throughout the term of this award, the Recipient agrees that for any activity that is the subject of a completed Environmental Assessment (EA), it will inform NIJ of (1) any change(s) that it is considering making to the previously assessed activity; (2) any changed circumstances, such as a change in the project site's conditions; or (3) any significant new information. The Recipient will not implement a proposed change until NIJ, with the assistance of the Recipient, has determined whether the proposed change will require additional review under NEPA. Likewise, in the case of new circumstances or information arising, NIJ, with the assistance of the Recipient, will determine if any additional environmental impact analysis is necessary. The approval will not be unreasonably withheld as long as any requested modification(s) is consistent with eligible program purposes and found acceptable under an NIJ-conducted environmental impact review process.
17. No portion of these federal grant funds shall be used towards any part of the annual cash compensation of any employee of the grantee whose total annual cash compensation exceeds 110% of the maximum salary payable to a member of the Federal government's Senior Executive Service at an agency with a Certified SES Performance Appraisal System for that year.



Department of Justice
Office of Justice Programs
National Institute of Justice

**GRANT MANAGER'S MEMORANDUM, PT. I:
PROJECT SUMMARY
Cooperative Agreement**

PROJECT NUMBER
2008-DN-BX-K021

PAGE 1 OF 1

This project is supported under FY08(NII - COPS DNA/Forensics) Pub. L. No. 110-161, 121 Stat. 1897, 1910; 28 USC 530C

1. STAFF CONTACT (Name & telephone number)

Mark Nelson
(202) 616-1960

2. PROJECT DIRECTOR (Name, address & telephone number)

Barbara Caraballo
Forensic Quality Assurance Manager
3228 Gun Club Road
West Palm Beach, FL 33406-3001
(561) 688-4233

3a. TITLE OF THE PROGRAM

NIJ FY 08 Forensic DNA Backlog Reduction Program Formula Grant Announcement

**3b. POMS CODE (SEE INSTRUCTIONS
ON REVERSE)**

4. TITLE OF PROJECT

FY2008 Forensic DNA Backlog Reduction Program - Palm Beach County Sheriff Office

5. NAME & ADDRESS OF GRANTEE

Palm Beach County Sheriff Office
3228 Gun Club Road
West Palm Beach, FL 33406-3001

6. NAME & ADDRESS OF SUBGRANTEE

7. PROGRAM PERIOD

FROM: 10/01/2008 TO: 03/31/2010

8. BUDGET PERIOD

FROM: 10/01/2008 TO: 03/31/2010

9. AMOUNT OF AWARD

\$ 412,981

10. DATE OF AWARD

09/11/2008

11. SECOND YEAR'S BUDGET

12. SECOND YEAR'S BUDGET AMOUNT

13. THIRD YEAR'S BUDGET PERIOD

14. THIRD YEAR'S BUDGET AMOUNT

15. SUMMARY DESCRIPTION OF PROJECT (See instruction on reverse)

This program furthers the U.S. Department of Justice's mission by offering an opportunity for States and units of local government with existing crime laboratories that conduct DNA analysis to improve DNA laboratory infrastructure and analysis capacity so that DNA samples can be processed efficiently and cost effectively, as well as to analyze backlogged forensic DNA casework. These improvements are critical to preventing future DNA backlogs and to helping the criminal justice system use the full potential of DNA technology.

nea/hcf

PROGRAM NARRATIVEABSTRACT

Palm Beach County has a population of 1,287,987. Total Violent Crime and Rate for Palm Beach County, 2006 reported 92 murders, 664 forcible rapes, 2,909 robberies, 5,636 Aggravated Assault for a total violent crime statistic of 9,301 or 722.1 violent crimes per 100,000 individuals. The goal of the Forensic Biology Unit (FBU) of the Palm Beach County Sheriff's Office (PBSO) is to conduct DNA analysis on probative criminal evidence from minor property crimes to major crimes such as sexual assaults and homicides. In order for this goal to truly be realized, a concurrent goal of reducing the overall turnaround time for the handling, screening, and analysis of forensic DNA samples while reducing the existing DNA forensic casework backlogs must also be accomplished.

The FBU documented a dramatic rise in the submission of criminal cases from 1998 to 2003. It was during this time period it was realized DNA profiles could be obtained from many sources of biological evidence including touch evidence. In order to prepare the FBU for the influx of criminal cases, validation studies were conducted on the latest methods for DNA extraction, quantification and amplification. To be assured the FBU was preparing for future casework loads, in 2004 the laboratory used NIJ grant funding to have Process Mapping conducted for the FBU. One of the objectives documented during this process was for the laboratory to work towards a complete an automation DNA process within five years. The FBU has attempted to accomplish this goal by consistently moving in a positive direction to improve the forensic DNA analytical process including using NIJ funding for extraction robotic, qPCR technology and single multiplex STR analysis. The 2007 NIJ Backlog Reduction grant funds were used to transition the laboratory DNA allele detection platform from the Hitachi FMBIO II to the ABI 3130xl. This instrument has been purchased, the validation studies completed and training of the analysts is well underway. The goal of the FBU for the 2008 Backlog Reduction Program is to add two DNA analyst to conduct serological and DNA analysis on casework evidence to help reduce the casework backlog and to provide these analysts with the necessary computers and software programs to improve output efficiency. Since there has been a sharp increase in the number of samples processed/case and there will be an increase in the number of analysts processing these samples, it is necessary to provide the appropriate instrumentation to maintain the projected sample-load increase. To address the DNA extraction process, this will be accomplished by purchasing a Beckman-Coulter BioMek 3000 Liquid Handler. The purchase of an ABI 7500 to validate and conduct qPCR multiplex technology will provide a more efficient method

for conducting quantification of evidence. Finally, it has been determined that an additional ABI 3130xl will be necessary to provide an increased capability for providing faster DNA analysis.

TABLE of CONTENTS

Program Narrative	1
Abstract	1
Table of Contents	2
Purpose, Goals, Objectives	2
List of Key Personnel	9
Resumes	10

PURPOSE, GOALS, OBJECTIVES

The Palm Beach County Sheriff's Office is a constitutional office and as a law enforcement agency a unit of Palm Beach County government. The Palm Beach County Sheriff's Office has an existing Crime Laboratory with a Forensic Biology Unit that undergoes external audits at least once every two years and is accredited by ASCLD/LAB. All DNA analysis performed under the FY2008 Forensic DNA Backlog Reduction program will be maintained under applicable federal privacy regulations.

NIJ grant funding helps the FBU achieve two general goals. The first goal is to provide DNA analysis in a timely manner for suspect cases in order to aid in law enforcement investigations and ultimately a judicial finding. The second goal is to provide CODIS qualifying DNA profiles for no-suspect cases in order to search the Local (LDIS), State (SDIS) and National DNA Index System (NDIS). All eligible DNA profiles will be uploaded to NDIS through LDIS upload to SDIS.

OBJECTIVES: The objectives of this grant are to request grant monies from NIJ's Forensic DNA Backlog Reduction Program for Fiscal Year (FY) 2008 in order to reduce forensic DNA sample turnaround time, increase the throughput of the Forensic Biology Unit and reduce DNA forensic casework backlogs. It is imperative that the laboratory provide the citizens of Palm Beach County Sheriff's with the full potential of the latest technologies in order to prevent future DNA backlogs and to help the criminal justice system in the decision making process of how to proceed with a case in which DNA analysis was conducted. The funds will increase the capacity of the FBU laboratory in conducting DNA analysis such that there will be an increase in the number of DNA samples analyzed

and that the process and cost of the analysis is effective. The funds will be used to handle, screen, and analyze backlogged forensic DNA casework samples. Specifically, the following objectives will be addressed:

A) REDUCING FORENSIC SAMPLE TURNAROUND TIME and INCREASING DNA

SAMPLE THROUGHPUT: Through several NIJ grants, the FBU infrastructure as implementation of robotics, and more recently a collaborative internship program with Marshall University to help in the validation of DNA kits, the citizens of Palm Beach County have greatly benefited from an increase in casework efficiency. Considering the 1447 cases that were submitted in 2007, when compared to 2006 statistics, there was a 32% increase in the number of submissions (3,513), a 38% increase in the number of items screened (6,696), a 37% increase in the number of samples tested (8,274) and a 32% increase in the number of samples that continued on to DNA analysis (5,355). So even though the total number of cases submitted in 2007 decreased BY 0.9%, there was a precipitous increase in the number of samples tested. The ability of the FBU to process this dramatic increase was a direct result of validating and implementing DNA robotic extraction, qPCR technology and the addition of FBU staff. It is not unusual for an emergency sample to be processed in its entirety with 48 hours.

- a) METRICS: Currently, a) The length of time it takes to handle, screen, or analyze a forensic DNA sample from submission to delivery of forensic DNA test results is approximately 230 days based on the first quarter of 2008. This is due in large part to the Megacases that tied up several analysts for these months (see below); (b) the average number of DNA samples analyzed per analyst/per month is 240 considering there are 4.5 analysts conducting DNA casework; and (c) the anticipated number of forensic DNA cases in backlog as of September 30, 2008, if the current trend continues will most likely increase from the current 1140 to 1410. This is due to the ongoing training of the entire DNA staff on the ABI 3130xl which began in March in which a total of 180 cases (4 months x 10 cases/month x 4.5 analysts = # cases not being analyzed due to training) and an experience Senior Forensic Scientist will be leaving PBSO in July (5 months x 18 cases/month = 90 cases not being worked).
- b) BOTTLENECKS IN SAMPLE PROCESSING:

1. It is already obvious that with the increase in the number of samples being analyzed and that the projection for 2009 is that there will be approximately a 37% increase (7,500) in the number samples analyzed for DNA. The current instrument will not be able to accommodate this increase. The 2007 Backlog reduction grant allocated for the purchase of an ABI 3130xl which is in the FBU and has been validated. It is expected that all eight DNA analysts will be competent in the capillary technology by the end of July 1, 2008. The Hitachi system allowed for the running and re-running of samples on any of eight electrophoretic apparatus so the analyst could process their samples or even run their samples again without holding up another analyst. The 3130xl is the only instrument in the laboratory and must be used by every analyst so it is predicted this could essentially be a serious bottleneck for the laboratory. As a result, a second ABI 3130xl will be necessary.
2. In order to progress to the goal of total automation, it will be necessary to be able to use a liquid handler to pipette samples from the 96-well amplification plate to the 96-well 3130xl formamide plate. Currently this is being done manually. This manual process is subject to pipetting errors (in liquid uptake, not in sample mix-up as PBSO has witnessed as part of the protocol) and also is time consuming as two analysts are necessary for the amplification set-up procedure. The laboratory has been using a BioMek liquid handling instrument for nearly six years. Since the laboratory is already proficient in the validation and implementation of extraction robotics, a new BioMek liquid handler could undergo validation and be used for automatic transfer of amplified products from the 96-well amplification plate to the 96-well 3130 formamide plate in a few minutes compared to the manual method which can take up to an hour for set-up and sample transfer.
3. PBSO currently uses the qPCR technology from ABI. PBSO was not successful in the validation and implementation of the Promega

multiplex qPCR technology in which both autosomal and Y-STR quantitative data is generated from a single multiplex. This kit was supposed to decrease the amount of time it took to obtain quantitative results and also to aid in the decision if a sample should continue to DNA. PBSO purchased a Stratagene instrument and has found there maybe issues with the compatibility of the Plexor kit and the Stratagene instrument. Therefore, the efficiency of the quantification methodology used in the laboratory has still not been addressed. The purchase of the ABI 7500 would address this issue and help with the reduction of sample turn-around time as well as increase the number of samples that would potentially provide DNA profiles for casework evidence.

B) REDUCING DNA FORENSIC CASEWORK BACKLOG: The FBU services approximately thirty agencies in addition to the Palm Beach County school system, universities, Florida Highway patrol and others. The FBU does not assign an agency's case unless the case has been called in to the Evidence Coordinator. Approximately 30% of all cases submitted to the PBSO Evidence/Property Unit are called in for DNA analysis. Interestingly, from 2006 to 2007 there was a 0.9% decrease in the number of cases called in for analysis (1493 vs. 1447). One of the reasons may be that the agencies do not feel the FBU will ever get to their case especially if it is a minor crime or there was a reduction in the number of minor crimes although statistics do not support this. There was nearly 100% increase in the number of backlogged cases at the end of 2007 compared to the same time in 2006 (548 cases vs. 1,100).

b. There are three main reasons for this:

1. MEGACASES: There were 11 high profile MegaCases submitted to the laboratory in 2007. There were 865 stains tested for these 11 with nearly 400 progressing to DNA analysis. These 11 cases accounted for 10% of all the samples tested in 2007. The accumulative number of hours invested in the analysis of these eleven cases is equivalent to one analyst working 41.5 weeks just on these cases. This means approximately **150** cases were not worked because of the demand of these eleven cases. These MegaCases are still ongoing.

2. **CASE PRIORITIZATION:** As of April 26, 2008 there were 907 cases waiting to be assigned for screening and DNA analysis. There were also 233 cases already screened by a serologist and awaiting transfer to a DNA analyst. This is a total of 1,140 cases waiting for DNA analysis of which 20% have at least serological analysis completed. Importantly, the Violent Crimes Task Force in conjunction with the "GangBusters" Force which is a collaborative effort among the county agencies to fight the gang activity has mandated these "GangBuster" cases be prioritized for DNA analysis. Usually these cases are connected to other cases and take a considerable amount of time to triage with the agencies. Thanks in large part to the additional two new FBU staff members funded through the 2005/2006 Caseworking grant there are currently only two (2) sexual assault cases that have not been assigned and 18 homicides of which only six (6) have all the evidence submitted and are ready for DNA analysis.
 3. **INCREASE IN NO-SUSPECT CASES.** Nearly 75% of the 1,140 cases awaiting DNA are no-suspect cases and of these all but two are property crimes. There has also been an increase in the number of samples submitted per cases. In the past most property crimes involved bloodstains left at the scene. Now swabs are taken from anywhere the suspect may have touched a surface. These crimes continue to be a reason why the backlog continues to increase.
- c. METRICS: The number of forensic DNA cases anticipated to be in backlog as of September 30, 2008 is approximately 1410 as described above. The number of cases that can be handled, screened, and analyzed within 12 months (18 months - 6 months for ordering, validating and implanting new instruments) using the Federal funding requested in this FY 2008 program should be approximately 330 additional cases (12 mo x 5 cases/mo x 5.5 analysts). In addition, it is expected that it will take approximately thirteen months to hire and train the new analysts which will leave five months for the new analyst to conduct casework. This number represents the number of DNA cases to be analyzed above and beyond the number that can be analyzed within 12 months using other sources of funding.**

d. BOTTLENECKS:

1. On June 28th, PBSO will lose an experience Senior Forensic Scientist. This analyst has the highest case throughput of the entire staff. As a result, the backlog of cases will definitely rise until an individual is hired and trained. It is anticipated the hiring of two new analysts for the DNA section will eventually help close this gap.
2. There are several factors out of the FBU's control that hinder decreasing the caseload backlog and increasing the backlog which include:
 1. It is not unusual that when the evidence does not generate probative data, the detectives request additional testing thus doubling the turn around time.
 2. The cases are submitted but an agency does not call in the case to have it worked.
 3. The case is called in for analysis but the evidence is not submitted, especially standards.
 4. There has been a dramatic increase in the number of subpoenas received for discovery motions, depositions and trial since more cases are being generated. All which take time away from the bench.
 5. The Casefile review process takes considerable time because the analysts are at their lab benches trying to increase the turn around time for analyzing casework samples.
3. The current FBU staff consists of seven DNA proficient analysts, two serologists currently in DNA training and 2 laboratory analysts. Increasing the number of staff that can screen evidence is critical to moving the backlog. There are those cases in which DNA does not need to be conducted due to a plea by the defendant or charges have been dropped or DNA will not forward the case. The current serologists are conducting casework and helping research these cases. In addition, there are cases in which post-screening does not provide any biological materials to test. The screening is a vital step in determining which cases will be transferred to a DNA analyst. The DNA part of the process is by far the most efficient part of conducting casework. It is the front end

screening that helps reduce the backlog and the addition of forensic scientists will help in reducing the backlog. These analysts will need computers and Laboratory Management System licenses as well as 3130xl software.

C) IMPLEMENTATION APPROACH FOR FUNDING:

Upon approval of the 2008 Backlog Reduction award, PBSO will submit the grant funding announcement to the Palm Beach County Commissioners for their approval. Once this has been accomplished the budget process will be set in place. The following will be then be initiated:

- a) The instruments will be ordered.
 1. ABI 3130xl including GeneMapper ID software and UPS back-up system. Performance Check validation studies will be conducted by contracting Sorenson Forensic Services from Salt Lake City Utah. Sorenson completed validation of the current 3130xl and is providing training and competency exams. Also, the amplification room will have to be wired for a 220V line which is expected to take a few days.
 2. ABI 7500 which will be validated using ABI Duo or Promega Plexor kit depending on the results of the 2008 summer intern from Marshall University
 3. BioMek3000 which will be validated in-house and take approximately two months to generate the necessary data and complete the manual.
- b) An announcement for the two new Forensic Scientists will be placed and depending on the response, the interview process will occur by February. Two Del computers with the JusticeTrax software and the GMID software will be ordered. Rainin pipetmen will be ordered for the new analysts benches.

Palm Beach County Sheriff's Office

FY 2008- Forensic DNA Backlog Reduction Program

In summary, the funding obtained from the 2008 Backlog Reduction program will provide the necessary equipment to proceed not only with automation goals but to improve casework sample turn around time as well as reduce the Palm Beach County Backlog.

NAMES, AFFILIATIONS OF ALL KEY PERSONNEL

1. Cecelia A. Crouse, Supervisor, Forensic Biology Unit, PBSO
2. Barbara Caraballo, Quality Assurance Manager, PBSO
3. Amy McGuckian, Sr. Forensic Scientist, Technical Leader, PBSO
4. Dale Sisson, Contract/Grants Manager, Budget, PBSO

RESUMES

STATEMENT OF QUALIFICATIONS
(Use additional sheets if necessary)

Name of Lab: Palm Beach County Sheriff's Office
Date: August 21, 2007

Name: Cecelia A. Crouse, PhD Title: Supervisor, Serology/DNA

Discipline(s): Indicate all areas in which you do casework.

- | | | |
|--|--|--|
| <input type="checkbox"/> Controlled Substances | <input type="checkbox"/> Toxicology | <input checked="" type="checkbox"/> Serology |
| <input type="checkbox"/> Firearms/Toolmarks | <input type="checkbox"/> Latent Prints | <input type="checkbox"/> Documents |
| <input type="checkbox"/> Trace Evidence | <input checked="" type="checkbox"/> Other : <u>DNA</u> | |

Education: List all higher academic institutions attended.

Institution	Dates Attended	Major	Degree Completed
University of Miami Fellow	1988-1992	N/A	Post Doctoral
University of Miami Ph.D.	1983-1987	Micro/Immun.	
Michigan State Univ. B.S.	1974-1976	Biology	
Jackson Comm College A.S.	1972-1974	Science	

Other Training: List continuing education, workshops, in-service and other formal training received.
See Attached

Courtroom experience: List the discipline(s) in which you have qualified to testify as an expert witness and indicate over what period of time and approximately how many times you have testified in each.

DNA - 1992 to present: 67 testimonies have been given since 1992.
41 - Court
26 - Deposition/Grand Jury

Professional Affiliations: List any professional organization of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.
See Attached

Name: Cecelia A. Crouse, Ph.D

Employment History: List all scientific or technical positions held, particularly those related for forensic science. List current position first. Give a brief summary of principal duties in each position.

(1) Job Title: Supervisor Serology/DNA Employer: Palm Beach Sheriff's Office
Principal Duties: Primarily responsible for the research, development, and application of DNA typing technologies for casework, and administrative duties.

(2) Job Title: Senior Forensic Scientist Employer: Palm Beach Sheriff's Office
Principal Duties: DNA techniques for identification of blood and body fluids. Training in basic serological techniques for case analysis.

(3) Job Title: Research Associate Employer: Eli Lilly and Company
Principal Duties: Primarily responsible for plant genetics program for field research stations.

(4) Job Title: Temp. Research Assistant Employer: Eli Lilly and Company
Principal Duties: Responsible for assisting senior scientist with a diversity of agricultural research projects. -

Other Qualifications: List below any scientific publication and/or presentation you have authored or co-authored, research in which you are or have been involved, academic, or other teaching positions you have held, and any other information which you believe relevant to your qualification as a forensic scientist. Use additional sheets if necessary.

See attached

CECELIA A. CROUSE Ph.D.

August 20, 2006

CAREER HISTORY

1. Supervisor Serology/DNA Section, and DNA Technical Leader Palm Beach County Sheriff's Office Crime Laboratory (May, 1996-present)
*Primarily responsible for the research, development, and application of DNA technologies for casework as well as administrative duties
2. Senior Forensic Scientist, DNA Technical Leader, Palm Beach County Sheriff's Office Crime Laboratory (February, 1992-May, 1996)
*Primarily responsible for the development and implementation of DNA typing technologies for casework analysis
3. Research Associate: Eli Lilly and Company, Indianapolis IN. (1979-1983)
*Primarily responsible for plant genetics program for SE United States field research stations.
4. Temporary Research Assistant: Eli Lilly and Company, Indianapolis IN. (1978)
* Responsible for assisting senior scientist with a diversity of agricultural research projects.
5. Secondary Education Teacher: Frankenmuth High School, Frankenmuth, MI (1976-1978)
*Responsible for teaching high school science curriculum

EDUCATIONAL BACKGROUND

1. Post Doctoral Fellow: Department of Ophthalmology Bascom Palmer Eye Institute and Department of Microbiology and Immunology, University of Miami School of Medicine, Miami, Florida(1988-1992).
2. Ph.D., Department of Microbiology and Immunology, University of Miami, Miami, Florida (Dec, 1987)
3. B.S. Department of Natural Science, Michigan State University, East Lansing, Michigan (March, 1976)
4. Assoc. Science: Department of Science, Jackson Community College, Jackson, Michigan (Dec 1973)

SPECIALIZED EDUCATIONAL TRAINING

1. Application of DNA Typing Methods; FBI DNA training course, Quantico, VA (April 13-May 8, 1992) University of Virginia course credit
2. AmpliType HLA DQ alpha Forensic DNA Amplification and Typing Training Workshop; Perkin-Elmer/Roche Molecular Systems, Alameda CA (June 1-10, 1992)
3. Advanced Aspects of Forensic DNA Analysis; FBI DNA training course, Quantico, VA (November 16-20,1992)
4. Forensic Serology; FBI Training course, Quantico, VA (June 7-11, 1993)
5. Statistics for Forensic Scientists Workshop, St. Petersburg Junior College Criminal Justice Institute, (January 22-24, 1996)

6. Statistics Workshop, 7th International Symposium on DNA Identification, Scottsdale, Arizona (September 16-18, 1996)
7. Expert Witness Testimony, 9th International Symposium on DNA Identification, Orlando, Florida (October 5, 1998)
8. Population Genetics and Statistics Workshop, Miami, Florida; February 23-25, 1999
9. CODIS Training, SAIC/FBI, Vienna, Virginia, June 12-15, 2000
10. FBI DNA Audit Course, Marshall University, Morgantown, VA May 13-15, 2003

PEER-REVIEWED PUBLISHED JOURNAL ARTICLES

1. Crouse C.A. and Pauley RJ. "Molecular cloning and sequencing of the mtv-1 LTR: evidence for a LTR sequence alteration", Virus Research 1989. Feb.12(2)p.123- 137.
2. Crouse C.A., Pflugfelder SC, Cleary TJ, Demick S, and Atherton SA. "Detection of Epstein-Barr viral genomes in normal human lacrimal glands", J. Clin. Micro. 1990. 28:1026- 1032.
3. Crouse C.A., Pflugfelder SC, Periera I, Cleary TJ, Rabinowitz S. and Atherton SA. "Detection of herpes viral genomes in normal and diseased corneal epithelium", Current Eye Research . 1990. 9:569-581
4. Pflugfelder S.C., Crouse CA, Periera I, and Atherton SA. "Amplification of Epstein-Barr viral genomic sequences in blood cells, lacrimal glands and tears from primary Sjogren's syndrome patients", Ophthalmol. 1990. 97:976-984.
5. Crouse CA, Pflugfelder S.C., Periera I, and Atherton SA. "EBV genomic sequences amplified in blood cells, lacrimal glands and tears from primary Sjogren's syndrome patients", 1990. ICSU Short Reports 10:71.
6. Pflugfelder, S.C., Huang H., and Crouse C.A. "Epstein-Barr virus keratitis after a chemical facial peel. Amer. J. Ophthalmol. 1990. 110:571-573.
7. McLeish W, Pflugfelder SC, Crouse CA, Miller D, Rabinowitz S, Hill EL, and Atherton SA. "Successful interferon-alpha 2 treatment of HSV-1 keratitis resistant to antiviral therapy", Ophthalmology 1990.109:93-9
8. Fox, G., C.A. Crouse, E. L. Chuang, S.C. Pflugfelder, T.J. Cleary, S.J. Nelson, S.S. Atherton "Detection of herpesvirus DNA in vitreous and aqueous specimens by the polymerase chain reaction", Archives of Ophthalmology 1991. 109:266-271
9. Levine, J., Pflugfelder, S., Yen, M., Crouse, C., Atherton, S. "Detection of the complement (CD21)/Epstein-Barr Virus receptor in human lacrimal gland and ocular surface epithelia", Regional Immunology 1991. 3:164- 170.
10. Cray C., C.A. Crouse , S.S. Atherton and R. J. Levy " Effect of Concurrent Graft-Versus host reaction on tissue distribution and infectious titer of murine cytomegalovirus", Archives of Virology, 1991. 121:101-110
11. Yen, M., Pflugfelder S.P., Crouse C.A., and Atherton S.A. "Characterization of the ocular surface and lacrimal gland for epithelial cytokeratin molecules", Invest. Ophthalmol. Vis.Sci., 1992. 33:3235-3241.

12. Pflugfelder S.C., Crouse C.A., Monroy D., Yen M., Rowe M., Atherton S.S. "Epstein-Barr virus and the lacrimal gland pathology of Sjogren's Syndrome", American Journal of Pathology 1992. 143:49-64.
13. Crouse C.A., Vincek V., Caraballo B. "Analysis and interpretation of the "1.1 Weak-Signal" observed during the HLA DQ α AmpliType procedure" Journal of Forensic Science, 1994, 39:41-51
14. Crouse C.A., Jeffrey Ban and D'Alessio J.K. "Extraction of DNA from forensic-type sexual assault specimens using simple, rapid sonication procedures", Biotechniques 1993, 15: 636-648
15. Crouse C.A., Feuer, W.J., Nippes D.C., Hutto, S.C. Barnes, K.S., Livingston S., Ginsberg L., and Glidewell, D.E., "Analysis of HLA DQ α Allele and Genotype frequencies in populations from Florida", Journal of Forensic Science, 1994, Vol.39 731-742.
16. Crouse C.A. and Vincek V. Identification of ABO alleles on forensic-type specimens using Rapid-ABO genotyping. BioTechniques, 1995, 278-283
17. Crouse C.A. and Schumm, J. W. Investigation of specie specificity using nine PCR-based STR systems. Journal of Forensic Science, 1995 Vol40, 952-956
18. Micka K., Sprecher C.J., Lins A., Comey C., Koons B., Crouse C.A., Endean D., Pirelli, K., Lee S., Duda N., Ma M. and Schumm J.W. Validation of Multiplex Polymorphic STR Amplification sets developed for personal identification. Journal of Forensic Science, 1996 582-590
19. Crouse C.A., Nippes D.C. and Ritzline E.L. "Confirmation of PM Typing Protocols for Consistent and Reliable Results" Journal of Forensic Science, 1996, 493-496
20. Crouse C.A., Amriott, B.A, Gibson, S.D., Masibay, A. "Analysis and Interpretation of STR Microvariant and Three-banded Patterns Using Multiple Allele Detection Systems". Journal of Forensic Science, Jan 1999, 87-94
21. Micka, K.A., Amriott, E.A., Hockenberry, T.L., Sprecher, C.J., Lins, A.M., Rabbach, D.R., Taylor, J.A., Bacher, J.W., Glidewell, D.E., Gibson, S.D., Crouse, C.A., and Schumm, J.W. "TWGDAM Validation of a Nine-Locus and a Four Locus Fluorescent STR Multiplex System", Journal of Forensic Science, Nov. 1999, 1243-1257
22. Eleni N. Levedakou et.al. "Characterization and Validation of PowerPlex2.1 , a Nine-Locus Short Tandem Repeat (STR) Multiplex system and Penta D Monoplex, submitted, Journal of Forensic Science
23. Eleni N. Levedakou , D.A. Freeman, M.J. Budzynski, B.E. Early, B.A. Amriott, K.C. McElfresh, J.W. Schumm, S.R. Ulery, D. Silva, A.J. Townly, A. Pollard, J. Lewis, J. Gombos, J. Sailus, C.A. Crouse and M. Nelson. "Allele frequencies for fourteen STR Loci of the PowerPlex1.1 and 2.1 Multiplex Systems and Penta D Locus in Caucasians, African-Americans, Hispanics and Other Populations of the United States of America." Accepted, Journal of Forensic Science, January, 2001.
24. Crouse C. A. "Implementation of Forensic DNA Analysis on Casework Evidence at the Palm Beach County Sheriff's Office Crime Laboratory: Historical Perspective" Croatian Medical Journal June, Vol 42, 247-25
25. Silva, D. A., Crouse, C. A., Chakraborty, R., Goes, A. C., and Carvalho, E. F. (1-28-2004) Statistical analyses of 14 short tandem repeat loci in Brazilian populations from Rio de Janeiro and Mato Grosso do Sul states for forensic and identity testing purposes. Forensic Sci.Int . 139(2-3): 173-176
26. Susan A. Greenspoon, Ph.D., Jeffrey D. Ban, M.S., Lourdes Pablo, M.S., Cecelia A. Crouse, Ph.D, Frank G. Kist, B.S., Chris S. Tomsey, M.S., Alex L. Glessner, B.S, Lisa R. Mihalacki,

- B.S., Terry Long, M.S., Bruce J. Heidebrecht, B.S., David A. Freeman, Ph.D., Carl Soberalski, M.S., Nathan Bruesehoff, B.S., Ashima S. Amin, M.S., Elizabeth K. Douglas, M.S., and James W. Schumm, Ph.D, "Validation and Implementation of the PowerPlex® 16 BIO System STR Multiplex for Forensic Casework." JFS January , 2004, Vol49 No 1 pg 71-80
27. Cecelia Crouse, Stephanie Yeung, Susan Greenspoon, Amy McGuckian, Julie Sikorsky , Jeff Ban and Richard Mathies, "Improving the Efficiency of a Small Forensic DNA Laboratory: Evidence Tracking, Robotic Assays and Future Microcapillary Array Devices" (Croatian Medical Journal, August, Vol46, No.4, 2005)
28. Stephanie H. I. yeung, Susan A. Greenspoon, Amy McGuckian, Cecelia Crouse, Charles Emrich, Jeffrey Ban, Richard Mathies, "Rapid and High throughput Forensic Short tandem repeat Typing using a 96-lane Microfabricated Capillary Array Electrophoresis Microdevice" JFS, July 2006, Vol51, No4, pg 740-747

PUBLISHED ABSTRACTS:

1. Crouse C.A. and Pauley R.J. International Breast Cancer Association, 1987
2. Crouse C.A. and Pauley R.J. American Association for Cancer Research. 1988.
3. Crouse C.A., Pflugfelder S.C., Demick SE, and Atherton SS J. Cell Biochem. Suppl 13E, 1989.
4. Vann V.R., Crouse C.A., Culbertson W.W. and Atherton S.S Invest. Ophthalmol. (Suppl.) Vol 30:215, 1989.
5. Pereira I.C., Crouse C.A., Pflugfelder S.C., Demick, S.E. and Atherton S.S. Pan-American Congress of Ophthalmology, September, 1989
6. Crouse, C.A., S.C. Pflugfelder, I. Periera, S. Rabinowitz, S. Atherton Invest. Ophthalmol. (Suppl.)Vol. 31:221, 1990
7. Fox, G.M., C.A. Crouse, S.S. Atherton, and S. C. Pflugfelder Invest. Ophthalmol. (Suppl.) Vol. 31: 366,1990
8. Bloti, B.A., S.C. Pflugfelder, C.A. Crouse, J.Levine, S.S. Atherton. Invest. Ophthalmol. (Suppl.) Vol. 31: 62, 1990
9. Pflugfelder, S.C., C.A. Crouse, I. Pereira, and S.S.Atherton Invest. Ophthalmol.
10. Crouse, C.A. , G.Fox, S. Pflugfelder, E. Chuang and S.S. Atherton. CEI: July,1990.
11. Crouse, C.A. Pflugfelder S.C. Yen M., and Atherton S.A. Invest. Ophthalmol. (Suppl.) 32 :807, 1991
12. Crouse C.A., Pflugfelder S.C, Atherton, S.A. Clin Exper. Rheumatology. Vol.9:336, 1991
13. Pflugfelder S.C., Huang A.J.W., Crouse C.A., Tseng S.C.G. Clin. Exper. Rheumatology 9:314, 1991
14. Crouse, C.A. Pflugfelder, S.J., Monroy, D, Rowe M.. and Atherton, S.A Invest. Ophthalmol. (Suppl.) 33:846; 1992.
15. de Carvalho F.M., Pflugfelder, S.C., Crouse C.A., Monroy D., and Atherton S.S. Invest. Ophthalmol. (Suppl.) 33:1024, 1992.
16. Pflugfelder S.C., Crouse C.A. and Atherton S.S. International Conference on Herpetic Eye Diseases. New Orleans, Louisiana.
17. Pflugfelder S.C., Crouse C.A. and Atherton S.S. Invest. Ophthalmol. (Suppl.) 34:1379 1993.
18. Crouse C.A., Vincek V., Caraballo B.K. Amer. Acad. of Forensic Science and The Forensic Science Foundation Inc. pp.78, 1993.

19. Crouse C.A., Feuer W.J., S.C. Hutto and Glidewell D.E. The Second International Symposium on Forensic Aspects of DNA Analysis, accepted March, 1993.
20. Wright W.R., Crouse C.A., Lewis S., Amer. Acad. of Forensic Science and The Forensic Science Foundation Inc. pp.82, 1994.
21. Crouse C.A., Ban J.D. and D'Alessio J.K. Amer. Acad. of Forensic Science and The Forensic Science Foundation Inc. pp.74, 1994.
22. Crouse, C.A. and Vincek, V., The Fifth International Symposium on Human Identification pg 166, 1994
23. Schumm J.W., Micka K., Sprecher C.J., Lins A., Comey C., Coons B., Crouse C.A., Endean D., Zold K., Lee S., Duda N., and Ma M. The Fifth International Symposium on Human Identification page 49, 1995
24. Glidewell, D., Crouse, C.A., and Caraballo, B.K.. American Academy of Forensic Science, 1995
25. Crouse, C.A. , Badger, C. , Yuen, W. Sixth International Symposium on DNA Identification, page 167, 1995)
26. Crouse, C.A., Glidewell, D. E., Rogers, S. and Evans, S. Sixth International Symposium on DNA Identification, page 168, 1995)
27. Cotton, R., Chakraborty, R., Crouse. C., Forman, L., Kriss, J. , Ranadive, A., Saipes, D., Weber, M., Weir, B., and Word, C. American Academy of Forensic Science 1996
28. Crouse, C.A. and Glidewell, D.E. The Seventh International Symposium on Human Identification page 97, 1996
29. Crouse, C.A., Glidewell, D.E., Gibson, S.D., Amriott, B.A., Promega/BioBras Latin American Symposium on Human Identification, August, 1997
30. Crouse, C.A., Rogers, S., Amriott, B.A., Gibson, S.D., Masibay, A. Eighth International Symposium on DNA Identification, September 1997
31. Gibson, S.D., Amriott, E.A., Crouse, C.A., and Weir, B. "Validation of the PowerPlex STR System and DQA1, PM and PowerPlex Genotype frequencies in the Palm Beach Databases" 1998, American Academy of Forensic Science,
32. Hockenberry, T.L, Sailus, J, Crouse C.A.: Ninth International Symposium on DNA Identification, October 1999
33. Silva, D.A., Chakraborty, R., Stivers, D., Zhong, Y, Carvalho, E.F, Crouse C.A. Tenth International Symposium on DNA Identification, October, 1999.
34. Crouse, C.A., M.Kline, R.H. Curtis "Documenting Real-World Pipette Performance" Accepted, American Academy of Forensic Science 2000
35. Paradela, E.R., Glidewell, D.E. and Crouse C.A. Feasibility of Conducting PCR-based DNA Analysis at the Crime Scenes" Accepted, International Symposium on DNA Identification, October, 2000.
36. Konotop, F. and Crouse C.A. Comparison and Analysis of Polyacrylamide gel matrixes for the detection of Fluorescent Megaplex STR alleles. Accepted, International Symposium on DNA Identification, October, 2000.
37. Perlin, M.W., D. Coffman, C.A. Crouse, F. Konotop, J.D. Ban. Automated STR Data Analysis: Validation Studies Twelfth International Symposium on DNA Identification, October, 2001
38. Conover, J.L. and Crouse C.A. Fourteenth International Symposium on DNA Identification, October 2003

39. Yeung, S.H.I., S. Greenspoon, J. Ban, A.B.McGuckian, C.A. Crouse, R.A. Mathies, "Microfabricated Capillary Array Electrophoresis Devices for Rapid and high through-Put STR Typing" Fifteenth International Symposium on DNA Identification, September, 2004
40. Steve Lee, Xavier Aranda, Dennis Yip, Arther Eisenberg, Cecelia A. Crouse, Amy McGuckian et al Analysis of PowerPlex Y Using the FMBIO III Plus; AAFS, February 21-25, 2005

BOOK CHAPTERS

- 1 Pflugfelder S.C. Crouse C.A. and Atherton S.S. 1993. Ophthalmic manifestations of Epstein-Barr virus infection., *Int.Ophthalmol. Clin.* 33:95-101.
2. Atherton S.S, Pflugfelder S.C. and Crouse C.A. EBV and the eye: Basic considerations with respect to ocular diseases. In *Infectious Diseases of the Eye*, Bialasiewicz AA and Schaal KP (editors). Buren Acolus pp332-341, 1994
3. Pflugfelder S.C. Crouse C.A. and Atherton S.S. Epstein-Barr virus and the lacrimal gland pathology of Sjogren's syndrome. *Adv Exp Med Biol* 1994; 350-641-643

EDITORIAL RESPONSIBILITIES

1. Journal of Forensic Science, Editorial Review Board 1995-present
2. Forensic Communications, Guest Reviewer
3. BioTechniques, Guest Reviewer 1993-present

INVITED OUTSIDE LECTURESHIPS

1. Florida DNA Training Session II: PCR Applications, Orlando, Fl. May 25-27, 1993
HLA DQ α Validation Studies for Implementation and HLA DQ β Population Database
2. Florida DNA Training Session III: Advanced PCR Applications, Co-instructor
Orlando, Fl. May 22-24, 1995
3. Florida Prosecuting Attorney's Association, Faculty member, "A Day of DNA", Winter Park, Florida, May 10, 1996.
4. National Association of Government Attorneys and Capital Litigators, Future DNA Technology, Orlando, Florida, August 9, 1996
5. American Academy of Forensic Science, "Advanced DNA Applications: Automation and Application", New York, NY, February 18, 1997
6. Florida State Division of the International Association For Identification, "From the Crime Scene to the Courtroom: The Fidelity of DNA". April 15, 1997
7. Palm Beach County Criminal Defense Attorneys Association, "DNA in the Crime Lab", July 15, 1997
8. Promega/BioBras Latin American Symposium on Human Identification, Practical Application of STRs to Casework and Acceptance in the Courtroom, August 11-12, 1997 Brasilia, Brazil
11. First Advanced STR MegaPlex Technology Workshop, co-instructor, Hilton Head, SC, January 11-13, 1998
12. Second Annual Advanced Fluorescent STR MegaPlex Technology Workshop, co-instructor National Forensic Science Technology Center, Inc. Hilton Head, SC (March 21-24, 1999)
13. International Symposium on DNA Identification in Rio de Janeiro, Rio de Janeiro, Brazil Providing Quality Forensic DNA profiling Results, June 6-7, 1999

14. Second Latin American Symposium on Human DNA Identification, Belo Horizonte Brazil, Implementation of DNA Profiling in a Forensic Laboratory June 8-10, 1999
15. Metrology Workshop and Symposium, Charlotte, NC; Utilization of NIST Standards For The Validation Of Forensic DNA Markers July 11-16, 1999
16. Florida DNA Training Session IV: DNA 2000, Co-instructor , co-organizer, Miami, Fl. May 23-26, 2000, "STR Validation: Scientific Admissibility"
17. Third Annual Advanced STR MegaPlex Technology Workshop, co-organizer-co-instructor, Hilton Head, SC, March 12-17, 2000
18. Eleventh International Symposium on DNA Identification, , Co-instructor "Casework Guidelines and Complex Mixture Workshop", October 9, 2000.
19. Fourth Annual Advanced STR MegaPlex Technology Workshop, co-organizer-co-instructor, Hilton Head, SC, March 11-16, 2001
20. Second European-American Intensive Course in Clinical and Forensic Genetics, Dubrovnik, Croatia, "Implementation of Forensic DNA Analysis on casework Evidence at the Palm Beach County Sheriff's Office Crime Laboratory: Historical Perspective" September, 2001
21. Fifth Annual STR MegaPlex Advanced Research and Training Workshop (SMART2002), Hitachi FMBIO Users Group meeting, March, 2002
22. Science and The Law , Miami , Florida , "Is DNA The Magic Bullet" Panel. October, 2003
23. Sixth Annual STR MegaPlex Advanced Research and Training Workshop (SMART2003), Hitachi FMBIO Users Group meeting, March 22-27, 2003
24. Illinois Court: Capital Cases-Evidence and Other Issues Workshop, "Forensic DNA Analysis", May 20-21, 2003 Chicago Illinois and September 18-19, 2003 Springfield Illinois
25. Seventh Annual STR MegaPlex Advanced Research and Training Workshop (SMART2003), Hitachi FMBIO Users Group meeting, March 28-April 1, 2004
26. Third Annual Advanced DNA Technology Workshop, Duck Key Florida, May 10-13, 2005
27. Fourth Annual Advanced DNA Technology Workshop, Duck Key Florida, May 23-26, 2005
28. National Institute of Justice Annual Conference on Criminal Justice Research and Evaluation, Institute of Law and Justice, *DNA and Minor Crimes* July 18-19, 2005
29. Fourth European-American School in Forensic Genetics and Mayo Clinic Course in Advanced Molecular and Cellular Medicine Dubrovnik, Croatia, Improving efficiency of a small forensic DNA laboratory: validation of robotic assays and evaluation of a microcapillary array device, September 5 - 9, 2005;
30. 5th Annual Advanced DNA Technology Workshop, Expert Systems, May 30, 2006
31. 33rd Annual Florida Medical Examiners Educational Conference: The Unidentified Human Remains Project: Know Bones About It, August 17, 2006

PROFESSIONAL COMMITTEES

1. American Prosecutors Research Institute, member, DNA Faculty 1996-present
Instructor for "DNA: Witness to the Truth".
2. Forensic Science Summit: Roadmap to the Year 2000 NIST, Gaithersburg MD March 24-25, 1997
4. National Commission for the Future of DNA Evidence, Lab Funding Working Group, commissioned by Attorney General Janet Reno, group reporter January-1998 to 2001
* The Retention and Subsequent Use of Suspect, Elimination, and Victim DNA Samples or Records; Cecelia A. Crouse and David Kay, October, 2000

5. Florida Crime Laboratory Council: STR's: The Next Generation, May 20-23, 1998
6. National Institute of Justice Grant Review Committee, February 17,1999 to present
7. Attorney General's Initiative on DNA Laboratory Analysis Backlog (AGID-LAB), commissioned by Attorney General John Ashcroft, workgroup member, January 2002
8. ChoicePoint DNA Advisory Board for the National Rape Evidence Project. March, 2002-current
9. Attorney Generals Initiative on Laboratory Backlog Reduction (AGID-LAB), AG John Ashcroft's DNA working group, March 2002-2003
10. DNA Summit, participant, International Chiefs of Police/NIJ, Washington D.C April 7-8, 2003
11. SWGDM-Scientific Working Group on DNA Analysis and Methods, FBI DNA, January 1, 2003 to present; Chair: Expert Systems Working Group
12. American Academy of Forensic Sciences 56th Annual Meeting; Chair for the Multidisciplinary Symposium: *The Anatomy of a Coerced Confession: Can Post-Conviction Relief Repair the Judicial System*, February 17, 2004
13. National Institute of Justice DNA Grant Technical Working Group, April 2005-present
14. Armed Forces DNA Identification Laboratory Advisory Board, 2006-present

STATEMENT OF QUALIFICATIONS
(Use additional sheets if necessary)

Name of Lab: Palm Beach County Sheriff's Office

Date: April 11, 2008

Name: Amy McGuckian

Title: DNA Technical Leader

Discipline(s): Indicate all areas in which you do casework.

- Controlled Substances
- Firearms/Toolmarks
- Trace Evidence
- Toxicology
- Latent Prints
- Documents
- Serology/DNA

Education: List all higher academic institutions attended.

Institution	Dates Attended	Major	Degree Completed
<u>Siena College</u>	<u>1993 – 1997</u>	<u>Biology</u>	<u>B.S.</u>
<u>The George Washington University</u>	<u>1997 – 1999</u>	<u>Forensic Science/Serology</u>	<u>MSFS</u>

Other Training: List continuing education, workshops, in-service and other formal training received.

- 7/18/00-7/19/00 DNA typing with STR's: Fundamental Techniques and Practical Applications
- 12/4/00-12/5/00 Courtroom testimony techniques
- 3/11/01-3/16/01 4th Annual STR Megaplex Advanced Research and Training Workshop
- 5/30/01-6/01/01 Interpreting DNA Evidence, Summer Institute in Statistical Genetics
- 8/27/01-8/31/01 Analysis of Short Tandem Repeats by Capillary Electrophoresis
- 3/11/02-3/14/02 5th Annual STR Megaplex Advanced Research and Training Workshop
- 3/23/03-3/27/03 6th Annual STR Megaplex Advanced Research and Training Workshop
- 6/05/03-6/06/03 DNA Auditor Training
- 3/29/04-4/01/04 7th Annual STR Megaplex Advanced Research and Training Workshop
- 5/10/04-5/13/05 3rd Annual Advanced DNA Technology Workshop East
- 4/4/05-4/06/05 Present and Future Technological Advances in Human Identification Conference
- 8/21/05-8/26/05 17th Meeting of the International Association of Forensic Sciences
- 5/30/06-6/2/06 5th Annual Advanced DNA Technology Workshop
- 11/28/06 Biomek FX and NX Fundamentals Programming
- 11/29/06 -11/30/06 Biomek FX and NX Methods Programming, 3.2 Software
- 07/17/07-07/18/07 Promega Working Group Meeting

Courtroom experience: List the discipline(s) in which you have qualified to testify as an expert witness and indicate over what period of time and approximately how many times you have testified in each.

Serology/DNA 08/00 – Present – 25 Times

Professional Affiliations: List any professional organization of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.

American Academy of Forensic Sciences - Trainee Affiliate 2/2002 - Associate Member 2/2004

Name: Amy McGuckian

Employment History: List all scientific or technical positions held, particularly those related for forensic science. List current position first. Give a brief summary of principal duties in each position.

(1) Job Title: DNA Technical Leader Employer: Palm Beach County Sheriff's Office
Principal Duties: Primarily responsible for documentation of the DNA Training Program, implementation of the DNA Training Program, maintenance of PBSO Serology/DNA protocols, evaluation of all methods used by the laboratory and proposing new DNA modified analytical procedures to be used by examiners, as well as, solving technical problems within the laboratory. In addition perform forensic science examination performing forensic science examinations: including screening crime scene evidence, identification of biological evidence, conducting DNA PCR-based analysis and comparison of genetic DNA profiles from evidence-to-evidence, evidence-to-victim, and/or evidence-to-suspects. Preparing reports of findings for use by the criminal justice system and testifying in court as an expert witness. Also responsible for participating in the research and validation of new technologies implemented on case work evidence and present scientific data at national and international meetings.

(2) Job Title: Sr. Forensic Scientist Employer: Palm Beach County Sheriff's Office
Principal Duties: Performing forensic science examinations: including screening crime scene evidence, identification of biological evidence, conducting DNA PCR-based analysis and comparison of genetic DNA profiles from evidence-to-evidence, evidence-to-victim, and/or evidence-to-suspects. Preparing reports of findings for use by the criminal justice system and testifying in court as an expert witness. Also responsible for participating in the research and validation of new technologies implemented on case work evidence and present scientific data at national and international meetings.

(3) Job Title: Forensic Science Intern Employer: FBI National Academy/Forensic Science Training & Research Principal Duties: Participated in a validation study of Perkin Elmer's Taqman 7700 sequence detector. Also performed STR DNA analysis for graduate thesis research on Applied Biosystems' 310 capillary electrophoresis and 377 gel electrophoresis.

(4) Job Title: Science Intern Employer: New York State Department of Health Labs
Principal Duties: Studied the metabolic products of vitamin k₃ in human cytosol and compared the human metabolites to those found in tests performed in rat cytosol. HPLC was utilized to identify the metabolic products and determine the amount present.

Other Qualifications: List below any scientific publication and/or presentation you have authored or co-authored, research in which you are or have been involved, academic, or other teaching positions

you have held, and any other information which you believe relevant to your qualification as a forensic scientist. Use additional sheets if necessary.

1999 – Presentation American Academy of Forensic Science “Use of Micron® micro concentrators to maximize analyses of suspected seminal stains”.

1997-1999 – Graduate thesis research “An Evaluation of Acid Phosphatase, Prostate Specific Antigen, and Short Tandem Repeat (STR) DNA Analysis on the same semen stain”.

Steve Lee, Xavier Aranda, Dennis Yip, Arther Eisenberg, Cecelia A. Crouse, Amy McGuckian, et. al. Analysis of the FMBIO III plus: AAFS, February 21-25, 2005.

Presentation: Automation: The Answer to Improving Efficiency in a Small Forensic DNA Laboratory: 17th Meeting of the International Association of Forensic Sciences. Hong Kong, China, August 21 – 26, 2005.

Steve Lee, Xavier Aranda, Dennis Yip, Arther Eisenberg, Cecelia A. Crouse, Amy McGuckian, et. al. Inter-Laboratory Studies on the PowerPlex Y Using the FMBIO III Plus: 16th International Symposium on Human Identification Grapevine, TX, September 25-29, 2005.

Crouse, C. A., Yeung, S. H. I., Greenspoon, S. A., McGuckian, A. B., Sikorsky, J. C., Bann, J. and Matheis, R. A. Improving Efficiency of a Small Forensic DNA Laboratory: Validation of Robotic Assays and Evaluation of a Microcapillary Array Device. *Croatian Medical Journal* 2005;46(4):563-577.

Yeung, S. H. I., Greenspoon, S.A., McGuckian, A. B., Crouse, C. A., Emrich, C.A., Ban, J. and Mathies, R.A. Rapid and High-throughput Forensic Short Tandem Repeat Typing Using a 96-lane Microfabricated Capillary Array Electrophoresis Microdevice. *J Forensic Sci.*2006;51:740-747.

2006 – Workshop Instructor: Improving Efficiency in a Forensic Laboratory, Midwestern Association of Forensic Scientists, October 9, 2006.

Valerie Bostwick, Amy McGuckian, Julie Sikorsky, Cecelia Crouse. Advances in Automation: Incorporation of the Biomek NXP into a Small Forensic Laboratory: AAFS, February 18 -23, 2008.

STATEMENT OF QUALIFICATIONS

Name of Lab: Palm Beach County Sheriff's Office
Date: April 2008

Name: Barbara K. Caraballo Title: Forensic Quality Assurance Manager

Discipline(s): Indicate all areas in which you do casework.

- Controlled Substances
- Toxicology
- Biology
- Firearms/Toolmarks
- Latent Prints
- Documents
- Trace Evidence
- Management/QA/QC/LIMS/Safety

Education: List all higher academic institutions attended.

Institution Completed	Dates Attended	Major	Degree
Ohio University	9/77-6/81	Forensic Chemistry	BS
NOVA Southeastern University	1/99 - 9/00	Public Administration	MPA

Other Training: List continuing education, workshops, in-service and other formal training received.
See Attached

Courtroom experience: List the discipline(s) in which you have qualified to testify as an expert witness and indicate over what period of time and approximately how many times you have testified in each.
See Attached

Professional Affiliations: List any professional organization of which you are or have been a member. Indicate any offices or other positions held and the date(s) of these activities.
See Attached

Name: Barbara K. Caraballo

Employment History: List all scientific or technical positions held, particularly those related for forensic science. List current position first. Give a brief summary of principal duties in each position.

(1) Job Title: For Quality Assurance Manager Employer: Palm Beach Sheriff's Office

Principal Duties: Quality Assurance and Quality Control, Accreditation, Coordinator of LIMS Network, Database Administrator, Special projects, Safety Officer, Grant Administrator, (11/99 to present)

(2) Job Title: Administrative Supervisor Employer: Palm Beach Sheriff's Office

Principal Duties: Supervisor of laboratory evidence section and administrative office. Coordinator of LIMS, special projects, quality assurance and employee development, safety officer. Budget, Business plan (5/96 to 11/99)

(3) Job Title: Chief Forensic Serologist Employer: Palm Beach Sheriff's Office

Principal Duties: Supervisor and case-working analyst. Responsible for budget, planning, training and the research and implementation of new techniques. (10/91 to 5/96)

(4) Job Title: Forensic Scientist III Employer: Palm Beach Sheriff's Office

Principal Duties: Case-working forensic serologist. (11/89 to 10/91)

(5) Job Title: Senior Criminalist Employer: Lake County Regional Crime Lab

Principal Duties: Case-working forensic serologist and trace evidence examiner, responsible for crime scene analysis and the implementation of new techniques. (1/87 to 10/89)

(6) Job Title: Criminalist Employer: Lake County Regional Crime Lab

Principal Duties: Case-working forensic serologist and trace evidence examiner. (6/81-1/87)

Other Qualifications: List below any scientific publication and/or presentation you have authored or co-authored, research in which you are or have been involved, academic, or other teaching positions you have held, and any other information which you believe relevant to your qualification as a forensic scientist. Use additional sheets if necessary.

See attached

Statement of Qualification
Barbara K. Caraballo**Other Training:**

ASCLD/LAB-International Assessor Training, Raleigh, NC (2007)
6th Annual AFQAM Meeting, Milwaukee, WI (2007)
JusticeTrax User's Group, Scottsdale, AZ (2007)
JusticeTrax User's Group, Scottsdale, Arizona 7/10-14/06
NIJ DNA Grantees Meeting, Washington, DC 6/26-28/06
FBI Laboratory Management Symposium, Georgia Tech, Atlanta, GA 5/7-11/06
NIJ Grantees Workshop, Hilton Head, SC, 1/29-2/1/06
4th Annual AFQAM Meeting, Indian Rocks, Beach, FL 10/3-7/05
FBI Laboratory Management Symposium, UM, Ann Arbor, MI 8/14-18/05
JusticeTrax User's Group, Scottsdale, Arizona 8/7-12/05
DNA Audit Document Refresher Training, FBI Academy, Quantico, VA (2004)
FRN/CLIP Conference, Tampa, FL, (2004)
32nd Annual Crime Lab Development Symposium, Minneapolis, MN, (2004)
AFQAM Meeting, Las Vegas, NV (2004)
FCLC ISO 17025 Workshop, Largo, FL (2004)
NIJ DNA Summit (DNA Grant), Washington DC (2004)
AFQAM Meeting, Indianapolis, IN, (2003)
JusticeTrax User's Group Meeting, Phoenix, AZ, (2003)
JusticeTrax User's Group, Phoenix, AZ (2003)
ISO 17025 Workshop, AFQAM Mtg., Austin, TX (2002)
JusticeTrax User's Group, Phoenix, AZ (2002)
ASCLD/LAB Inspector Training, Salt Lake City, UT (2002)
DNA Audit workshop, Washington DC, (2001)
Performing Effective Audits, FBI Academy, Quantico, VA (2000)
JusticeTrax, Advanced Crystal Reporting, Phoenix, AZ (2000)
Laboratory Auditing Workshop, NFSTC (1999)
JusticeTrax, Designing Custom Reports, Phoenix, AZ (1999)
Quality Assurance Symposium, San Antonio, TX (1999)
Proficiency Testing in the Forensic Science Laboratory, AAFS Workshop, Orlando, FL (1999)
JusticeTrax Joint Application Design, Phoenix, AZ (1998)
Ethics in Forensic Science, AAFS Workshop, New York, NY (1997)
Laboratory Quality Assurance, FBI Academy, Quantico, VA. (1996)
CODIS Administrator's Training, Vienna, VA (1997)
CODIS User's Group, Tallahassee, FL (1996)
Statistics and Population Genetics for Forensic Science, Summer Institute in Statistical Genetics, NCSU, Raleigh, NC (1996)
DNA Typing with STR's Workshop, Promega Corp., Madison, WI (1995)
Florida DNA Training Session III, Advanced PCR Applications, Orlando, FL (1995)
Florida DNA Training Session II, PCR Applications, Orlando, FL (1993)
Advanced Aspects of Forensic DNA Analysis, FBI Academy, Quantico, VA., (1992)
HLA DQ α , Polymarker, AMP-FLP Workshop, Perkin-Elmer / Roche Molecular Systems, Richmond, CA. (1992)

Forensic DNA Profiling, Metro-Dade Crime Laboratory, Florida International University graduate credit (1991)

Florida DNA Training Session I, Orlando, FL (1990)

Forensic / Laboratory Application of DNA Typing Methods, FBI Academy, Quantico, VA., University of Virginia graduate credit (1990)

Non-Isotopic Detection of DNA Polymorphisms Workshop, Allo-Type Genetic Testing, Atlanta, GA. (1988)

Human Immunoglobulin Allotyping Workshop, Allo-Type Genetic Testing, Atlanta, GA. (1987)

Biochemical Methods of Bloodstain Analysis, FBI Academy, Quantico, VA., University of Virginia graduate credit (1985)

Microscopy of Hairs and Fibers, FBI Academy, Quantico, VA., (1984)

Bloodstain Pattern Analysis, MAFS, Silver Lake, MN (1984)

Forensic Fiber Microscopy, McCrone Research Institute, Chicago, IL., (1984)

Advanced Trace Evidence Microscopy, McCrone Research Institute, Chicago, IL., (1983)

Semen Identification, Serological Research Institute, Emeryville, CA., (1982)

Applied Polarized Light Microscopy, McCrone Research Institute, Chicago, IL., (1981)

Courtroom Experience

1. Forensic Serology, 15 years, 80 times
2. Forensic DNA Analysis, 5 years, 6 times
3. Trace Evidence Analysis, 14 years, 45 times
4. Hair and Fiber, 45 times
5. Glass, 5 times
6. Paint, 5 times
7. Impression-shoe and fabric, 10 times
8. Mechanical matches, 10 times
9. Particle analysis, 10 times
10. Headlamp analysis, 5 times
11. Bloodstain Pattern analysis, 5 times

Expert witness testimony in the fields of Forensic Serology, Trace Evidence Examination, Drug Analysis, Crime Scene Analysis, Collection and Preservation of Biological Evidence and Bloodstain Pattern Analysis. Over 100 sworn testimonies in Common Pleas and Circuit Courts in Ohio, Pennsylvania and Florida.

Professional Affiliations

AFQAM

American Academy of Forensic Sciences, Criminalistics Section (Member)

Midwestern Association of Forensic Scientists (Member)

Southern Association of Forensic Scientists (Member)

Other Qualifications

Certification:

Palm Beach County Sheriff's Office

FY 2008- Forensic DNA Backlog Reduction Program

American Board of Criminalistics, Diplomate
ASCLD/LAB Inspector – Biology

Invited Lectures (Selected Listing):

Technical Services Bureau, Evidence Submission and Analysis - Palm Beach Sheriff's Office Law Enforcement FTO High Liability Training Program. 1999 – 2005
PBSO New Employee Orientation, Safety Committee and Broken Star. 2002 - 2004

Technical Services Bureau, Evidence Submission and Analysis - Palm Beach Sheriff's Office Law Enforcement Training Program, Feb. - June 2000

Crime Laboratory Procedures and Quality Assurance - Palm Beach County State's Attorneys Office, Feb. 1999

Crime Laboratory Evidence Submission and Packaging - PBSO FTO Training Instructor 1997- 1999

Crime Scene Procedure - The Collection and Preservation of Evidence Seminar- "Evidence Submission Procedures", Sponsored by the State Attorney's Office, 15th Circuit Court, FL, July 1997

Florida DNA Training Session III: Advanced PCR Applications - "Laboratory Needs for STR Systems", May 1995

Florida Division Of the International Association for Identification District VII - "Crime Lab Evidence", May 1994

Victimology, Sponsored by Palm Beach Atlantic College - "Sexual Assault Evidence and DNA Analysis", February, 1994

Florida Criminal Justice Executive Institute - "Violent Crime Investigations: Introduction to Crime Lab Procedures", September 1993

Palm Beach State Attorney's Office - DNA Workshop, May/June 1993

Florida DNA Training Session II: PCR Applications - "Technical Issues", May 1993

Panel Discussion Participant:

LIMS Systems - AFQAM, Austin, Texas, October 2002

JusticeTrax Joint Application Design Session, Phoenix, AZ, June 2000

AG Communications LIMS-plus Joint Application Design Session, Phoenix, AZ August 1998

FBI STR Standardization Committee - PBSO Management Representative Washington DC, April 1996 - November 1997

Licensing and Technology Transfer Issues for DNA Identity Testing Laboratories - Fifth International Symposium on Human Identification, Scottsdale, AZ October 1994

Quality in Forensic Science - American Academy of Forensic Sciences, Boston, Mass. February 1993

Publication:

Crouse C.A., Vincek V., Caraballo B.K., "Analysis and Interpretation of the HLA DQ α 1.1 Weak-Signal Observed During the PCR-Based Typing Method", Journal of Forensic Sciences. Vol. 39, No.1, January 1994, pp. 42-52

Service:

1. American Board of Criminalistics - Proficiency Review Committee 1994-1996, Recertification Committee, 1996-1999, 2001-2006
2. American Academy of Forensic Sciences - Criminalistics Section Surplus Funds Committee, 1994-1996.
3. PBSO Safety Committee, Co-Chair
4. PBSO Broken Star Committee
5. AFQAM, Chair Strategic Planning Committee
6. ASCLD/LAB Inspector, Biology

Dale Sisson

Grants Manager
 Palm Beach County Sheriff's Office

E d u c a t i o n

- Palm Beach Atlantic College** 1986 - 1991
 West Palm Beach, FL
BS Computer Information Systems.
Emphasis Area: Information Systems and Accounting.
- Software AG** April, 1996
 Richmond, VA
Intermediate Construct Programming
- Delphi Programming Retreat** May, 2000
 St. Augustine, FL
Delphi Programming Fundamentals
- Management Concepts** Jan, 2002
 Vienna, VA
Grants and Contracts Managment

S u m m a r y o f q u a l i f i c a t i o n s

For ten years I served in the Information Systems Division of the Sheriff's Office. During that time, I was repsonsibile for several projects, which included designing and developing systems which directly impact the Oracle Financial System. These systems required that data, which was generated by an outside vendor, in this case the County, interface properly with the PBSO General Ledger. Thus, knowledge and familiarity of public sector finance was a prerequisite to the development and support of these systems. Additionally, I have worked on similar systems and agreements with several outside vendors. For these agreements, I developed multiple software programs to collect the data from these institutions and create a means by which our new systems will be able to make use of this information.

Since leaving the Information Systems Department, I have continued to rely on my extensive technical background and expanding my project management skills while working with the Grants Unit. One of the main components of working with Grants is Financial Management. Financial Management includes the development of budgets and expense monitoring utilizing databases and spreadsheets and Oracle to assist in properly monitoring grant program expenses. Working with grants has required me to become proficient with the Oracle Financial System both with Accounts Payable and Accounts Receivable. I have extensive knowledge of the Oracle Financial System's many reports and maintaining the general ledger. Working with grants has also required me to become proficient with the Oracle Payroll System including the Time and Attendance Management System. I also have used several aspects of the Oracle Human Resources System through the costing of grant personnel including the creation of individual Personal Action Forms. The ability to utilize these individual systems and work well with the Finance, Payroll, and Human Resources personnel has given me a unique opportunity to understand how these systems work together.

I have also been involved with a not-for-profit travel soccer organization for the past ten years and five of those years have been a member of their board of directors. During those five years on the board, I was responsible with managing several individual coaches in the girls program as the Girls Administrator. This past year I was asked to serve as the president of the board which has been an honor. In my new role as president I have been working with the Director of Coaches on implementing a youth development program for ages five to eleven and a team curriculum for entire organization which has approximately 250 members.

P r o f e s s i o n a l e x p e r i e n c e

Palm Beach County Sheriff's Office

West Palm Beach, FL

April, 1996 - 2000

Programming in various systems and various programming languages throughout the agency. This also includes several different hardware platforms, including Mainframe and Personal Computer.

West Palm Beach, FL

Oct. 2000 - Present

Currently managing Grants, Contracts and Cooperative Agreements in the Grants Unit. My primary responsibility is maintaining the financial integrity of the Sheriff's Office as it relates to the Grants Unit.

West Palm Beach, FL

Aug. 2000 - Present

Serving as board member for Palm Beach United, a soccer organization with teams from eight years of age to eighteen. These teams play in leagues and tournaments both locally and nationally. This experience has required me to work with other individuals with Palm Beach United to create short term and long term strategies for the entire organization to continue in an effort to develop players.

A d d i t i o n a l p r o f e s s i o n a l a c t i v i t i e s

- *Was extensively involved in the conversion of data into the Oracle Financial system and have a good knowledge of the Accounting structure being used.*
- *Have been involved with Wright Express, the gas card company being used by the Sheriff's Office, to write an interface for their data into Oracle.*
- *Currently I have a strong relationship with Human Resources through my interaction over the past several years as a Grants Manager working to define and properly cost over thirty grant funded positions.*
- *Currently I have a strong relationship with Payroll through my interaction over the past several years as a Grant Manager utilizing the payroll function of Oracle to collect the necessary documentation required for grant funding.*
- *Currently I have a strong relationship with Accounting through my interaction over the past several years as a Grants Manager working with Accounts Payable and Accounts Receivable to maintain financial integrity as it relates to the general fund and grant fund.*
- *Currently a Florida of Government Finance Officers Association (FGFOA) member.*
- *Currently I am responsible to approve all grant related purchases which requires I have a strong understanding of the purchasing and procurement guidelines followed by the public sector as required by the Office of Finance, Management and Budget.*

C o m m u n i t y a c t i v i t i e s

- *Coach the Boys Varsity Soccer team at Summit Christian School. Have been involved in this program for ten years.*
- *Coached the Girls Varsity Soccer team at King's Academy. Was involved in this program for five years.*

Palm Beach County Sheriff's Office

FY 2008- Forensic DNA Backlog Reduction Program

- *Coach with Palm Beach United F.C. a club/travel soccer program. I have been involved with this program for over ten years as a coach and serving on their Board.*
- *I am currently President of the Board at Palm Beach United F.C. and will serve a two year term.*

BUDGET NARRATIVE
(\$412,981)

- A. (\$92,616) **Personnel:** Funds will used to hire two new full-time entry level Forensic Scientists (Paygrade 26.0)who will be directly engaged in handling, screening, and/or analyzing forensic evidence that may contain DNA, or in validating new DNA analysis technologies. It is anticipated the two new Forensic Scientists will be fully trained in Serological techniques within three months of their employment and that they will commence casework screening at this time. Within 18 months they will begin training for DNA analysis.

Forensic Scientist	per analyst	2 analysts
Salary	\$46,308	\$92,616
Fringe Benefits	\$18,692	\$37,384
TOTAL SALARY	\$65,000	\$130,000

- B. (\$37,384) **Fringes:** Fringe Benefits as listed for two full-time Forensic Scientists. Includes retirement, FICA, health, vision, life and dental insurance

Health 18.39% x (2 x 46,308) = \$17,037
 Retirement 20.92% x (2 x 46,308) = \$19,375
 Dental 0.75% x (2 x 46,308) = \$695
 Life 0.21% x (2 x 46,308) = \$194
 Vision 0.09% x (2 x 46,308) = \$83

- C. **Travel:** Not Applicable

- D. (\$253,981) **Equipment:** The FBU anticipates reducing sample time turn around and processing an increased number of samples by validating and implementing technologies that will improve efficiency of the DNA analysis process (see summary in Table 1).
- a. **BioMek3000:** For nearly six years the BioMek2000 robot has been used for the extraction of DNA samples in the FBU. Although it has greatly enhanced the efficiency of the extraction process, the robot deck must be re-set manually when the pre-amplification steps are conducted as it is a one-step robot. This robot will be placed in the amplification room in order to use its liquid handling ability to transfer post-amp products from a 96-well plate to a formamide 3130xl 96-well plate. This step is currently being conducted manually and it is prone to pipetting variability and is time consuming. The BioMek3000 has an upgraded software program identical to the BioMek NX which is near validation completion. The new BioMek3000 will be used to replace the BioMek2000 in the extraction room. The BioMek3000 will allow for more advanced liquid handling procedures and since the FBU already has robotic experience, following

purchase of the instrument the validation and implementation should be within a few months.

- b. ABI 3130xl: It is anticipated with the validation and implementation of instruments that allow for an increase in automation there will concurrently be an increase in sample processing and when the two new Forensic Scientists are trained in DNA analysis this will further increase sample processing. It is anticipated with these increases the FBU will need another 3130xl. This will not only allow for more analyst to process more samples but it will also provide the unit with an instrument to continue casework if one of the instruments should be taken off line. The GMID software will need to be purchased for this instrument as well as an ABI Assurance Agreement. In addition, the two new Forensic Scientists will be trained on the GeneMapper ID software
- c. ABI 7500: The FBU has been interested in making the quantification step more efficient through the use of a multiplex kit that quantifies both total autosomal DNA concentrations and Y-DNA concentrations. The ABI 7500 is a versatile instrument that will allow for comparison of the Promega Plexor kit and the new ABI DUO kit. An intern from Marshall University will be testing these systems for the summer 2008 internship program. The data generated at this time will help to determine which system to validate on the ABI 7500.
- d. Dell Computers: Each of the two new Forensic Scientists will need to have a reporter workstation not only to be able to access the internal LIMS program but also to conduct DNA analysis using GeneMapper ID. The computers will be used to record casework information, keep statistics on their casework load, process case reports and have access to network instrument software programs
- e. Rainin Pipettmen: Four new pipette stations will need to be purchased. Each of the new analysts will have their own casework evidence workstation. It will be necessary to have them have access to pipette stations on a routine basis. Therefore, a set for ergonomic pipette stations will be necessary for each analyst. In addition, there is currently only 1 set of pipette stations for the pre-extraction and post-extraction areas and additional set will allow more analysts to prepare samples at the same time.
- f. UPS: In order to protect the ABI 3130xl against run interruptions the instrument will need an Uninterrupted Power Supply (UPS) system. A 220v line will need to be installed in order to accommodate the UPS and ABI 3130xl

Table1: SUMMARY OF EQUIPMENT FUNDS REQUESTED:

ITEM	COMMENTS			TOTAL\$
BioMek 3000	Includes instrument, shipping, manual, software			\$37,014.00
ABI 7500	Includes instrument, shipping, manual, software			\$35,366.00
ABI 3130xl	Includes Instrument (\$146,500, freight (\$923), ABI assurance Agreement (\$11,684), 2 Genemapper ID licenses for the two new Forensic Scientists (\$6994).			\$166,101.00
UPS	Uninterrupted PowerSystem for the ABI 3130xl and 220v wiring for the instrument			\$5,000.00
Dell Computers	Each new Forensic Scientist PBSO Information System will determine the model.			\$5,500.00
Rainin Pipettemen	4 sets:	type	each #	
		1ML	\$289 4	\$1,156
		200ul	\$289 4	\$1,156
		20ul	\$289 4	\$1,156
		10ul	\$299 4	\$1,196
		stand	\$84 4	\$336
TOTAL				\$253,981.00

E. (\$0) Supplies

F. Construction: Not Applicable

G. (\$29,000) Consultants / Contracts: Once the ABI 3130 has been purchased and installed, the performance check studies will be conducted by Sorenson. This will allow the analysts in the laboratory to continue conducting casework. Sorenson has validated the current 3130xl and has done an excellent job. The scope of work detailed below is intended to test the reliability and sensitivity of Promega's PowerPlex16 Amplification Kit on the Applied Biosystems 3130xl Genetic Analyzer. The experiments are designed according to Scientific Working Group for DNA Analysis (SWGDM) guidelines. We are very flexible as to how these validation experiments will be conducted. Experiments can be adjusted or refined to suit the particular needs of your laboratory. Sorenson Forensics will

provide all the validation results in a professionally organized binder. The validation binder will include a hard copy of the validation final report, all electropherograms, analysis spreadsheets, allele summary tables, and all testing notes and pertinent documentation. In addition, Sorenson Forensics will organize all the .fsa files, spreadsheets, and allele summary tables onto CDs for long-term electronic storage.

- a. *Reproducibility:* Five positive controls will be amplified and analyzed at 3 second, 5 second, and 10 second injection times. These studies will demonstrate the ability to produce the expected profile across multiple amplifications.
- b. *Precision:* A total of 10 ladders will be used to calculate the precision. Precision will also be calculated over a course of at least 3 days. Each allele for every locus of the ladder will be analyzed to determine the precision of the instrument.
- c. *Sensitivity:* Three different genomic DNA samples will be amplified in a serial dilution containing 4ng, 2ng, 1ng, 0.5ng, 0.25ng, 0.125ng, 0.0625ng, 0.0313ng, and 0.0156ng. All samples will be analyzed at 3 second, 5 second, and 10 second injection times. The peak height ratios will be calculated. In addition, stochastic studies will be conducted to determine the peak height at which allelic drop out occurs. This will aid in determining the peak detection threshold.
- d. *NIST:* Ten samples from NIST SRM 2391b will be utilized for the PowerPlex16 kit. This will demonstrate concordance with the published profiles.
- e. *Match Criteria:* The match criteria will be analyzed using the first and last positive control as well as the first and last ladder.
- f. *Value Added:* Sorenson Forensics will also provide up to 8 hours of off-site consultation during the next external audit of the Palm Beach County Sheriff's Office. This service is offered at no additional charge.

H. Other Costs: Not Applicable

I. Indirect Costs: Not Applicable

Retirement	\$92,616.00	20.92%	\$19,375
Life Insurance	\$92,616.00	0.21%	\$194
Health Insurance	\$92,616.00	18.40%	\$17,037
Dental Insurance	\$92,616.00	0.75%	\$695
Vision Insurance	\$92,616.00	0.09%	\$83
			TOTAL
			\$37,384

Total Personnel & Fringe Benefits

\$130,000

C. Travel-- Itemize travel expenses of project personnel by purpose (e.g., staff to training, field interviews, advisory group meetings, etc. Show the basis of computation (e.g., six people 3-day training at \$X airfare, \$X lodging, \$X subsistence). In training projects travel and meals for trainees should be listed separately. Show the number of trainees and unit cost involved. Identify the location of travel, if known. Indicate source of Travel Policies applied, Applicant or Federal Travel Regulations.

Purpose of Travel	Location	Item	Computation	Cost
N/A		Airfare	\$0.00 1	\$0.00
		Hotel	\$0.00 1	\$0.00
		Meals	\$0.00 1	\$0.00
		Airfare	\$0.00 1	\$0.00
		Hotel	\$0.00 1	\$0.00
		Meals	\$0.00 1	\$0.00
		TOTAL		\$0.00

D. Equipment-- List non-expendable items that are to be purchased. (Note: Organization's own capitalization policy for classification of equipment should be used. Expendable items should be included in the "Supplies" category. Applicants should analyze the cost benefits of purchasing versus leasing equipment, especially high cost items and those subject to rapid technical advances. Rented

or leased equipment costs should be listed in the "Contractual" category. Explain how the equipment is necessary for the success of the project. Attach a narrative describing the procurement method to be used.

Item	Computation	Cost
BioMek 3000	\$37,014.00 1	\$37,014.00
ABI 7500	\$35,366.00 1	\$35,366.00
ABI 3130xl	\$166,101.00 1	\$166,101.00
UPS	\$5,000.00 1	\$5,000.00
Dell Computers	\$2,750.00 2	\$5,500.00
Rainin Pipetemen/Stands	\$312.50 16	\$5,000.00

Instrumentation includes, instrument, shipping, software, installation

TOTAL \$253,981.00

E.-Supplies--List items by type (office supplies, postage, training materials, copying paper, and other expendable items such as books, hand held tape recorders) and show the basis for computation. Generally, supplies include any materials that are expendable or consumed during the course of the project.

Supply Items	Computation	Cost
N/A	\$0.00 0	\$0.00
	\$0.00 0	\$0.00
	\$0.00 0	\$0.00

TOTAL \$0.00

F. Construction-- As a rule, construction costs are not allowable. In some cases, minor repairs or renovations may be allowable. Consult with the program office before budgeting funds in this category.

Purpose	Description of Work	Cost
N/A		\$0.00

\$0.00
\$0.00

TOTAL **\$0.00**

G. Consultants/Contracts— Indicate whether applicant's formal, written Procurement Policy or the Federal Acquisitions

Consultant Fee: For each consultant enter the name, if known, service to be provided, hourly or daily fee (8-hour day), and estimated time on the project. Consultant fees in excess of \$450 per day require additional justification and prior approval from OJP.

Name of Consultant	Service Provided	Computation	Cost
N/A		\$0.00 1	\$0.00
Subtotal			\$0

Consultant Expenses: List all expenses to be paid from the grant to the individual consultant in addition to their fees (i.e., travel, meals, lodging, etc.)

Item	Location	Computation	Cost
N/A			
Subtotal			\$0

Contracts: Provide a description of the product or services to be procured by contract and an estimate of the cost. Applicants are encouraged to promote free and open competition in awarding contracts. A separate justification must be provided for sole source contracts in excess of \$100,000.

Item	Cost
-------------	-------------

Sorenson Genomics	\$29,000.00	1	\$29,000.00
Validation/training of 3130xl			

Subtotal \$29,000

CONSULTANTS/ CONTRACTS TOTAL \$29,000

H. Other Costs-- List items (e.g., rent, reproduction, telephone, janitorial or security services, and investigative or confidential funds) by major type and the basis of the computation. For example, provide the square footage and the cost per square foot rent, and provide a monthly rental cost and how many months to rent.

Description	Computation		Cost
N/A	\$0.00	1	\$0.00
	\$0.00	1	\$0.00
		TOTAL	\$0.00

I. Indirect Cost--Indirect costs are allowed only if the applicant has Federally approved indirect cost rate. A copy of the rate approval, (a fully executed, negotiated agreement), must be attached. If the applicant does not have an approved rate, one can be requested by contacting the applicant's cognizant Federal agency, which will review all documentation and approve a rate for the applicant organization, or if the applicant's accounting system permits, costs may be allocated in the direct costs categories.

Description	Computation		Cost
	\$0.00	1%	\$0.00
		TOTAL	\$0.00

Budget Summary--When you have completed the budget worksheet, transfer the totals for each category to the spaces below. Compute the total costs and the total project costs. Indicate the amount of Federal requested and the amount of non-Federal funds that will support the project.

Budget Category	Amount
A. Personnel	\$92,616.00
B. Fringe Benefits	\$37,384
C. Travel	\$0.00
D. Equipment	\$253,981.00
E. Supplies	\$0.00
F. Construction	\$0.00
G. Consultants/Contracts	\$29,000.00
H. Other	\$0.00
Total Direct Costs	\$412,981
I. Indirect Costs	\$0.00
TOTAL PROJECT COSTS	\$412,981
Federal Request	\$412,981.00
Non-Federal Amount	\$0.00

NOTE: If a Non-Federal amount is entered, make sure those items for which they will be used must be incorporated into your overall budget. Indicate clearly throughout you budget narrative and detail worksheet for which items these funds will be used.