

# CITY OF OAKLAND

## AGENDA REPORT

OFFICE OF THE CITY CLERK  
CITY OF OAKLAND

2006 OCT 10 PM 2:25

**To:** Office of the City Administrator  
**Attn:** Deborah Edgerly  
**From:** Police Department  
**Date:** October 31, 2006

**Re: A Report and Proposed Resolution Authorizing the City Administrator, on Behalf of the City of Oakland, to Accept and Appropriate Grant Funds in the Amount of One Hundred Thirty-Six Thousand Eight Hundred and Twenty-Five Dollars (\$136,825) from the U.S. Department of Justice, National Institute of Justice (USDOJ/NIJ) for Implementation of the 2006 DNA Capacity Enhancement Grant Program in the Police Department**

---

### SUMMARY

This report and resolution authorizes the City Administrator, on behalf of the City of Oakland, to accept and appropriate grant funds in the amount of \$136,825 from the U.S. Department of Justice, National Institute of Justice (USDOJ/NIJ) for the 2006 DNA Capacity Enhancement Program. The proposed program period is October 1, 2006 through September 30, 2007. The funds will be used to offset costs to the Police Department's Criminalistics Division Forensic Biology Unit relative to increased capabilities in analyzing biological evidence associated with criminal cases.

### FISCAL IMPACT

It is anticipated that the Department will receive grant funds in the amount of \$136,825 to improve the infrastructure and analysis capabilities of state and local crime laboratories that conduct DNA analysis. Revenues and appropriations will be allocated in the Federal Grant Fund: 2112, Criminalistics Division Org.: 102610; Criminalistics Program: PS05, in a Project Account to be determined. The Criminalistics Laboratory DNA Technical Lead will be responsible for program administration. All equipment purchased will be covered under the manufacturer's warranty for the first year. The program liquidation period is 90 days following the program end date. There are no matching fund requirements. Expense allocations are:

Item: \_\_\_\_\_  
City Council  
October 31, 2006

<b>Description and Use of Funds</b>	<b>Amount</b>
AB 3130 Capillary Electrophoresis Instrument (2)	136,825
Criminalistics Division General Purpose Fund Contribution	53,175
<b>Total Project Cost:</b>	<b>\$190,000</b>

Additional equipment costs in the amount of \$53,175 for the AB 3130 Capillary Electrophoresis Instruments shall be expensed to the General Purpose Fund: (1010); Criminalistics Division Org. (102610); Criminalistics Division Program (PS05); Miscellaneous Equipment and Supplies Account (52919). Maintenance provision costs for the instruments beyond the first year, with an annual estimated cost of \$6,000, will be expensed to: General Fund (1010); Criminalistics Division Org. (102610); Criminalistics Program (PS05); Maintenance Account (54612).

## **BACKGROUND**

The 2006 DNA Capacity Enhancement Program was created to assist laboratories in improving the infrastructure and analysis capacity of their laboratories to process DNA. The improvements allow staff to process DNA samples in a more efficient and cost-effective manner. Grant funds will support the purchase of sensitive DNA typing instrumentation.

The Laboratory's case completion time during the first six months of 2006 was 130 days. Upon implementation of new increased capacity DNA typing instrumentation, coupled with automated DNA extraction instrumentation, the Forensic Biology Unit should be able to decrease the case turn-around time to less than 100 days. This decrease will enable staff to increase the number of case requests completed each year.

The DNA profiles obtained from probative evidence will be entered into the Combined DNA Indexing System (CODIS). A DNA match made by CODIS can then be matched to a named individual or to another unknown suspect case. Based upon past experience with DNA profiles obtained from suspectless cases, staff anticipates a 25% Hit-Rate.<sup>1</sup>

---

<sup>1</sup> "Hit Rate" is defined as that portion of all cases examined in which at least one suspect is identified. Multiple suspects may be identified in some portion of the cases examined. In "named" cases, investigators frequently request multiple suspects be examined.

## **KEY ISSUES AND IMPACTS**

The advent of DNA technology has revolutionized law enforcement's ability to analyze biological evidence at a genetic level, in particular, semen evidence encountered in sexual assaults. Coinciding with this revolution in genetic analysis is the utilization of computer-based DNA databases. The DNA analysis of the biological evidence associated with unsolved sexual assault and homicide cases and subsequent searches of these DNA profiles against the Combined DNA Indexing System and against other case profiles can determine if any matches exist. The outcome of such cross-referenced searches can lead to the arrest and prosecution of violent individuals. Additionally, DNA typing may lead to the elimination of a particular individual as a crime suspect. The ability of the laboratory to conduct the DNA analyses as a routine matter, with a shorter turn-around time, will ultimately lead to solving crimes.

## **PROJECT DESCRIPTION**

### Use of the AB 3130 Capillary Electrophoresis Instrumentation

Purchase of the AB 3130 will permit sequencing and fragment analysis runs that can be carried out with minimal amounts of DNA. The Capillary Electrophoresis (CE) instrument (Attachment A) separates the amplified DNA fragments by size. In combination with the internal lane standard, it allows accurate sizing of the fragments, which are subsequently compared to the allelic ladder to determine the fragment allele. In genetics, an allele is any one of a number of viable DNA codings occupying a given locus (position) on a chromosome.

The CE instrument will decrease turn-around time for the completion of homicide and sexual assault case requests by two to three hours of each analyst's hands-on time per case. This will reduce the current turn-around time of case requests from 130 days to less than 100 days.

## **SUSTAINABLE OPPORTUNITIES**

### Economic

Whenever possible, supplies and equipment used for the project will be purchased locally.

### Environmental

There are no environmental issues associated with this report.

**Social Equity**

The personnel training and equipment funded by this grant will enhance the Department's ability to analyze biological evidence in homicide and sexual assault cases in a more timely fashion.

**DISABILITY AND SENIOR CITIZEN ACCESS**

There are no ADA or senior citizen access issues contained in this report.

**RECOMMENDATION**

The Police Department recommends that the City Council authorize the City Administrator to accept grant funds in the amount of \$136,825 from the U.S. Department of Justice, National Institute of Justice, 2006 DNA Capacity Enhancement Grant Program and appropriate said funds to the Police Department Criminalistics Division.

**ACTION REQUESTED BY THE CITY COUNCIL**

Staff recommends that the City Council approve the resolution.

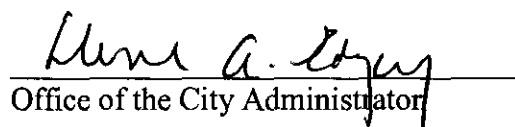
Respectfully submitted,



Wayne G. Tucker  
Chief of Police

Prepared by: Jennifer Mihalovich  
Criminalistics Division  
Bureau of Investigation And  
Candice Jessie  
Budget and Grants Administrator  
Bureau of Administration

APPROVED AND FORWARDED TO  
THE PUBLIC SAFETY COMMITTEE:



Office of the City Administrator

Item: \_\_\_\_\_  
City Council  
October 31, 2006

# Applied Biosystems 3130 and 3130xl Genetic Analyzers

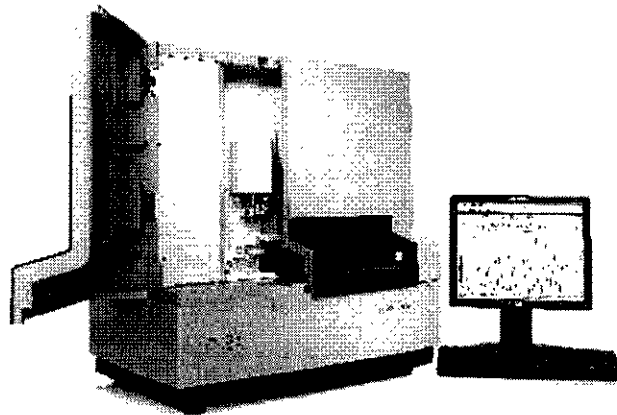
## Key Features

- 16 capillaries for the 3130xl and 4 capillaries for the 3130 system
- 24-hour unattended operation
- Easy instrument set-up
- Polymer filling via the Automated Polymer Deliver System
- Detection cell heater for improved thermal control
- Automated sample injection from both 96- and 384-well microtiter plate formats
- 3130 POP-7™, POP-6™, and POP-4™ separation polymers
- Multiple dye detection
- One polymer, one array, multiple applications

## Components

The Applied Biosystems 3130 and 3130xl Genetic Analyzers consist of the following components:

- Capillary electrophoresis instrument
- Computer workstation for instrument control and data analysis
- Software for instrument control, data collection, and autoanalysis of sample files



- Available analysis software and algorithms:
  - Sequencing Analysis software for basecalling
  - GeneMapper®/GeneMapper® ID software for microsatellite, SNP, AFLP, and LOH analysis
  - SeqScape® software for comparative sequencing, mutation detection, and detection of heterozygote insertions and deletions
  - BioTrekker™ software for electrophoresis and sequence detection system (SDS) to download finished genotypes from GeneMapper™ Software v3.5 and SDS Enterprise Database v2.2 into a single results database.

# OAKLAND CITY COUNCIL

  
City Attorney

OFFICE OF THE CITY CLERK

RESOLUTION No. \_\_\_\_\_ C.M.S.

2006 OCT 19 PM 2:25

**RESOLUTION AUTHORIZING THE CITY ADMINISTRATOR, ON BEHALF OF THE CITY OF OAKLAND, TO ACCEPT AND APPROPRIATE GRANT FUNDS IN THE AMOUNT OF ONE HUNDRED THIRTY-SIX THOUSAND EIGHT HUNDRED AND TWENTY-FIVE DOLLARS (\$136,825) FROM THE U.S. DEPARTMENT OF JUSTICE, NATIONAL INSTITUTE OF JUSTICE, (USDOJ/NIJ) FOR IMPLEMENTATION OF THE 2006 DNA CAPACITY ENHANCEMENT GRANT PROGRAM IN THE POLICE DEPARTMENT**

**WHEREAS**, the City of Oakland has been awarded grant funds in the amount of \$136,825 from the U.S. Department of Justice, National Institute of Justice, for implementation of the 2006 DNA Capacity Enhancement Grant Program in the Police Department's Criminalistics Division; and

**WHEREAS**, the DNA Capacity Enhancement Grant Program was created to improve the infrastructure and analysis capabilities of laboratories that conduct DNA analysis; and

**WHEREAS**, the grant term for the proposed initiative is October 1, 2006 through September 30, 2007; and

**WHEREAS**, the City Council previously authorized acceptance of similar grant funds by Resolution No. 79535 C.M.S., dated October 18, 2005, and Resolution No. 78910 C.M.S., dated November 16, 2004; now, therefore be it

**RESOLVED:** That the City Council hereby authorizes the City Administrator or her designee to accept grant funds in an amount not to exceed \$136,825 from the U.S. Department of Justice, National Institute of Justice and to increase revenues and appropriate said budget to the Police Department; and be it

**FURTHER RESOLVED:** That said grant funds shall be maintained in the Federal Grant Fund: 2112; Criminalistics Division Org.: 102610; Criminalistics Program PS05; in a Project Number to be established; and be it

**FURTHER RESOLVED:** That additional equipment costs in the amount of \$53,175 for the AB 3130 Capillary Electrophoresis Instruments shall be expensed to the General Purpose Fund: 1010; Criminalistics Division Org.: 102610; Criminalistics Division Program: PS05; Miscellaneous Equipment and Supplies Account: 52919; and be it

**FURTHER RESOLVED:** That equipment maintenance costs beyond the first year of acquisition (with an annual estimated cost of \$6,000) will be expensed to the General Fund: 1010; Criminalistics Division Org.: 102610; Criminalistics Program: PS05; Maintenance Account: 54612; and be it

**FURTHER RESOLVED:** That the City Administrator or her designee is hereby authorized to complete all required negotiations, certifications, assurances and documentation required to accept, modify, extend and/or amend the grant award.

IN COUNCIL, OAKLAND, CALIFORNIA, \_\_\_\_\_, 20\_\_\_\_\_

**PASSED BY THE FOLLOWING VOTE:**

AYES- BROOKS, BRUNNER, CHANG, KERNIGHAN, NADEL, QUAN, REID, and PRESIDENT DE LA FUENTE

NOES-

ABSENT-

ABSTENTION-

ATTEST: \_\_\_\_\_

LaTonda Simmons  
City Clerk and Clerk of the  
Council of the City of Oakland, California