To: Office of the City Administrator  
Attn: Deborah Edgerly  
From: Police Department  
Date: June 27, 2006  
Re: An Informational Report on the Oakland Police Department's Efforts to Investigate DNA "Cold Hit" Cases

SUMMARY

This informational report provides an overview of the role of forensic DNA technology and the querying of local, state and national databases in solving unsolved crimes such as sexual assaults and homicides. Also outlined are the Department’s investigative efforts relative to cases identified as DNA Cold Hit cases.

FISCAL IMPACT

The Criminalistics Division (Laboratory) currently has seven Criminalist positions devoted to Forensic Biology/DNA Analysis. The Forensic Biology Unit is supervised by one Criminalist III. Four of the seven Criminalist positions are funded by grants and salary savings in the amount of $461,040. The City Administrator received Council’s authority to move these four positions to the general fund as part of the 2006-07 mid-cycle budget adjustment.

The Laboratory was awarded $158,901 in federal grants aimed at DNA backlog reduction and DNA capacity enhancement. The grants are identified as DNA Backlog Reduction Program 2004 (ending June 30, 2006), DNA Backlog Reduction Program 2005 (ending September 30, 2006), and DNA Capacity Enhancement Program 2005 (also ending September 30, 2006). These grant monies cannot be applied to the real-time analysis of all sexual assault kits collected by the department as described in the Key Issues area of this report.

KEY ISSUES AND IMPACTS

Role of DNA Technology and Laboratory Testing

The acquisition of sensitive, highly discriminating DNA typing technology coupled with the emergence of DNA databases at the state and national levels, has redefined the role of the Crime Laboratory in the investigation of crimes. No longer must laboratories wait for investigators to develop suspects by traditional (and labor intensive) investigative techniques. Rather, forensic scientists can provide investigators the very information they seek, but in many cases would never otherwise obtain - the identity of the perpetrator through DNA evidence. This technology has transformed the Laboratory into an investigative enterprise in its own right.
DNA technology has been instrumental in establishing real perpetrators in over 100 instances of wrongful convictions. On two separate occasions DNA testing by the Laboratory excluded the defendant as the perpetrator, which resulted in charges being dismissed in a sexual assault case and an attempted murder case.

**Unanalyzed Sexual Assault Cases and Missed Opportunities to Solve Crimes**

Since the close of the *Cold Hit* Program in September 2003, it is estimated that an accumulation of 444 kits (cases) have gone unanalyzed.

Less than half of the sexual assault evidence kits that the Department collects are analyzed:

- In 2004, 62% of sexual assault evidence kits collected were not requested for analysis
- In 2005, 66% of sexual assault evidence kits collected (181) were not requested for analysis

If the 36% named offender hit rate and 12% case-to-case hit rate are applied to these unanalyzed cases, a sense of the scale of **missed opportunities** to solve high, repeat offense, criminal activity becomes apparent:

- 72 missed opportunities to identify perpetrators
- 23 missed opportunities to identify serial offenses.

It is estimated that three additional Criminalist II DNA Analysts are needed to address these cases and prevent years of accumulated backlogged, missed opportunities.

Full, systematic use of forensic DNA technology by the Oakland Police Department Criminalistics Division would require the addition of three full-time Criminalist II positions at a cost of $328,503 annually (including benefits), and one additional genetic analyzer instrument to accommodate increased staffing, at a cost of $95,000. Other costs would include supplementing the existing O&M budget by $63,000 for DNA type kits, reagents and expendable supplies. The total first year cost for full implementation would be $486,503.

**Analysis Increases Understanding of the Nature of Sexual Assault in Oakland**

To understand the nature of sexual assault in Oakland, evidence in all sexual assaults should be analyzed in a timely manner. The benefits of doing so include:

- More perpetrators will be identified through database hits
- Crimes committed by serial offenders will be revealed through case-to-case hits
- Assaults against vulnerable victim populations, such as sex industry workers (which are notoriously difficult to prosecute) will be more prosecutable when identified as part of a series of sexual assaults

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• Early recognition and elimination of suspects (who are in fact innocent) prevents waste of the Department’s limited investigative resources, avoids potential costly liability, and serves justice

All of these benefits have been identified in various Cold Hit Program cases. Expansion of the program to the analysis of evidence in all sexual assaults will result in crime reduction and increased safety in Oakland.

Expansion of Offender Database Will Increase Solvability of Cases

Proposition 69 (passed in November 2004) dramatically expanded California’s Convicted Offender DNA Data Bank Program. The collection of DNA was originally restricted to a short list of offenders convicted of violent crimes. Now, the following groups of individuals are eligible for inclusion in the Offender Data Bank:

• Adults convicted of any felony
• All registered sex and arson offenders
• Juveniles adjudicated for or convicted of any felony
• Adults and juveniles housed in mental health/sex offender treatment programs for felony offenses
• Any person required to provide a DNA sample as a condition of a plea
• Adults arrested for a murder, voluntary manslaughter, any California Penal Code Section 290 felony sex offenses, or an attempt to commit any of these crimes
• Beginning in 2009, any adult arrested for a felony offense

The expansion of the Offender Data Bank will continue to increase the number of associations (hits) made to evidence in unsolved cases.

Impact on Investigations

Full, systematic application of forensic DNA technology, along with the dramatic expansion of the Offender Data Bank due to Proposition 69, will result in an increase in the number of solvable sexual assault evidence and sexual assault homicide cases.

• Named offender hits average 36% for cases searched in the database
• Case-to-case associations showing serial nature of crime are expected in 12% of cases

As a consequence, the active caseload of investigative units will increase as old, unsolved cases are resuscitated through the development of these new and powerful leads. Current personnel resources may not be sufficient to absorb the additional workload.

Full, systematic use of these tools to examine evidence of sexual assault is not currently possible at current staffing levels. If pursued, use of DNA technology would enable additional crimes to be solved and would reveal connections between crimes that would not otherwise be known. The
efficacy of the Cold Hit Program has and will continue to place increased demands on investigative units.

**PROGRAM DESCRIPTION**

The Oakland Police Department began using state-of-the-art forensic DNA typing technology in the year 2000. That same year, the Laboratory began its Cold Hit Program. Advances in DNA technology have enabled forensic scientists to develop unique profiles from evidence left at crime scenes or recovered from victims of crime. These profiles can be compared to known suspects and used to query local, state and national data banks of known offenders, felons, and arrested suspects for possible sources of the material.

When DNA evidence from an unsolved crime is associated with an offender sample in a database, that event is referred to as a Named Offender cold hit. DNA evidence profile such as the profile associated with semen recovered from a sexual assault survivor can also be compared to DNA profiles from evidence in other cases (both solved and unsolved) in these same databases. When associations are made between cases, the event is referred to as a Case-to-Case cold hit.

**Named Offender Cold Hits**

Reports containing evidence analysis, as well as all other database hits, are provided to investigators from Laboratory personnel. A Named Offender report includes the name and Criminal Identification and Information (CII) number of the individual identified in a database search. The investigator is asked to provide a fresh reference blood or saliva sample taken from the individual for confirmatory purposes. This sample is called a confirmation sample and serves as proof that a mix up in samples has not occurred at the California Department of Justice (DOJ) laboratory where the Offender Data Bank is maintained.

**Case-to-Case Cold Hits**

In the event of a Case-to-Case hit, the Laboratory informs the investigator that two or more cases have DNA profiles in common. Those profiles remain in the database and are compared to the DNA profiles of new additions to the Offender Data Bank in hopes of establishing a link to the assailant. The table below shows the current status of hit confirmation samples that have been submitted to the Laboratory.

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Status of Requests for Confirmation Samples from Investigative Units  
(Dated: May 19, 2006)

<table>
<thead>
<tr>
<th>Status</th>
<th>Homicides</th>
<th>Sexual Assaults</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Confirmation sample received</td>
<td>17</td>
<td>45</td>
<td>2</td>
<td>64</td>
</tr>
<tr>
<td>Confirmation sample not yet received</td>
<td>14</td>
<td>55</td>
<td>6</td>
<td>75</td>
</tr>
<tr>
<td>Confirmation sample will not be pursued</td>
<td>2</td>
<td>25</td>
<td>0</td>
<td>27</td>
</tr>
<tr>
<td>(varying reasons)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hits pending receipt of DOJ reports</td>
<td>1</td>
<td>10</td>
<td>0</td>
<td>11</td>
</tr>
</tbody>
</table>

The Criminalistics Division not only receives requests from Department investigators, but is also responsible for examining evidence from older, unsolved cases that have been filed by investigators, pending further information. The Laboratory has examined evidence in numerous cases (primarily sexual assault and homicide), and has made many Named Offender and Case-to-Case hits as summarized in the table below.

Cold Hits Summary by Case Type (Dated: May 19, 2006)

<table>
<thead>
<tr>
<th>Status</th>
<th>Homicides</th>
<th>Sexual Assaults</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profiles entered</td>
<td>114</td>
<td>354</td>
<td>21</td>
<td>489</td>
</tr>
<tr>
<td>Named Offender Hits</td>
<td>34</td>
<td>135</td>
<td>7</td>
<td>176</td>
</tr>
<tr>
<td>Hit rate</td>
<td>30%</td>
<td>38%</td>
<td>33%</td>
<td>36%</td>
</tr>
</tbody>
</table>

| Case-to-case hits           | 8         | 51              | 1     | 60    |
| Hit rate                    | 7%        | 14%             | 5%    | 12%   |

Since the inception of the Cold Hit Program, the total number of DNA processing requests has been 1,296. Of the profiles entered into the Combined Offender DNA Index System (CODIS), 36% have resulted in named offender hits; 12% have resulted in case-to-case hits. Statistics obtained from the DOJ DNA Laboratory (located in Richmond, CA) show Oakland’s hit rate is among the highest in the state.

Timeline of Events in Cold Hit Case Profiled in Oakland Tribune Articles

In a recent case reported in two articles by the Oakland Tribune (dated May 8 and 17, 2006), the following sequence of events occurred in a Cold Hit case:

- **January 3, 2004:** Sexual assault occurs.
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- **February 5, 2004:** Laboratory received request for analysis of evidence.
- **May 20, 2004:** DNA profile developed from evidence and uploaded to the DNA database (CODIS).
- **May 21, 2004:** OPD notified of a named offender hit (Note: at this point the name of individual is not yet available to us).
- **June 9, 2004:** DOJ DNA Lab publishes name and CII# number of offender to OPD Lab.
- **June 10, 2004:** OPD Lab informs Sexual Assault Unit by phone of name and CII number of the offender.
- **June 11, 2004:** OPD Lab published hit, name of offender and CII number to investigator and requests confirmation sample collection.
- **December 13, 2004:** Second offense occurs, but Laboratory is not asked to analyze any biological evidence associated with the second offense. Latent print requests were received and processed by the Lab. No identifications were made.
- **August 4, 2005:** Confirmation samples from hit on first offense received by the Lab from the investigator.
- **August 17, 2005:** Confirmation report published to investigator

The sample was analyzed in accordance with established Laboratory procedures. As noted in the Tribune articles, a disconnect occurred between the crime lab and the investigative staff, which the Department is striving to eliminate.

**Investigative Efforts**

All homicide related DNA cases are investigated. To date, homicide investigators have cleared seven DNA related cases from their current case log; however, 14 are presently under investigation. Investigators review the evidentiary value of the hit in relation to the case. An attempt to locate the offender is made for the purposes of obtaining the confirmation sample. The results are tracked by one investigator and the commander of the Homicide Section.

The Special Victims Unit (SVU), which is responsible for sexual assault investigations, currently has 55 DNA related cases; all of which have been reviewed, evaluated for investigative follow-up and assigned to an investigator. These cases are tracked in an internal database which is maintained by the SVU supervisor.

Each week the SVU supervisor prepares a DNA case status report which is forwarded to Police Department command staff, Laboratory personnel, and the Alameda County District Attorney’s Office. All sexual assault investigators, both in SVU and the Child Exploitation/Vice Section (a total of 14 sworn officers), have recently received training from the Laboratory on how to obtain confirmation samples and are equipped with the necessary kits to complete the task. DNA cases are treated as priority matters and receive immediate attention by investigators.

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With the anticipation of an even larger DNA caseload due to Prop 69, the Department formed a Registered Sex Offender Enforcement Detail. In addition to coordinating compliance checks and enforcement activities with the City’s 1,200 plus registered sex offenders, the Detail will assist sexual assault investigators with the collection of the DNA confirmation samples from all registered sex offenders in the City.

On June 10, 2006 the Registered Sex Offender Enforcement Detail was increased from one to two officers. The Domestic Violence Unit recently eliminated a case backlog of 2,200 plus investigations, making it possible to move staff to priority investigative positions in the Special Victims Unit.

The Department is confident that our new investigative protocols will assist staff in the effective management of all investigations currently assigned to the Youth and Family Services Section. However, as Prop 69 comes into full effect, staffing levels will need to increase in both the SVU and the 290 Enforcement Detail in order to fully address the DNA issue and ensure no cases fall through the cracks.

**SUSTAINABLE OPPORTUNITIES**

**Economic**

A lower crime rate promotes a climate in which economic development can flourish. By connecting sexual and homicidal predators through DNA evidence, OPD able to remove more criminals from communities, in turn lowering the crime rate throughout the City.

**Environmental**

There are no environmental opportunities associated with this report.

**Social Equity**

Persons who commit sexual assault are a highly recidivistic group of criminals. Prompt identification and successful prosecution of these individuals will reduce and prevent additional sexual assaults, thus reducing crime in Oakland.

**DISABILITY AND SENIOR ACCESS**

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

Staff recommends acceptance of this report.

Respectfully submitted,

Wayne G. Tucker
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