

# PREPARING TO TAKE ON FORENSIC SCIENCE EVIDENCE

Jennifer Friedman

[jfriedman@pubdef.lacounty.gov](mailto:jfriedman@pubdef.lacounty.gov)

Wisconsin State Public Defender Annual  
Defense Conference  
November 13, 2015

# STEPS

- I. Identify the evidence /Determine its significance
- II. Obtain discovery/ View Evidence
- III. Investigate the Examiner
- IV. Investigate the Lab
- V. Identify experts/ Referral Question/Hiring expert
- VI. Admissibility challenges
- VII. Meet with the Examiner
- VIII. Prepare Cross

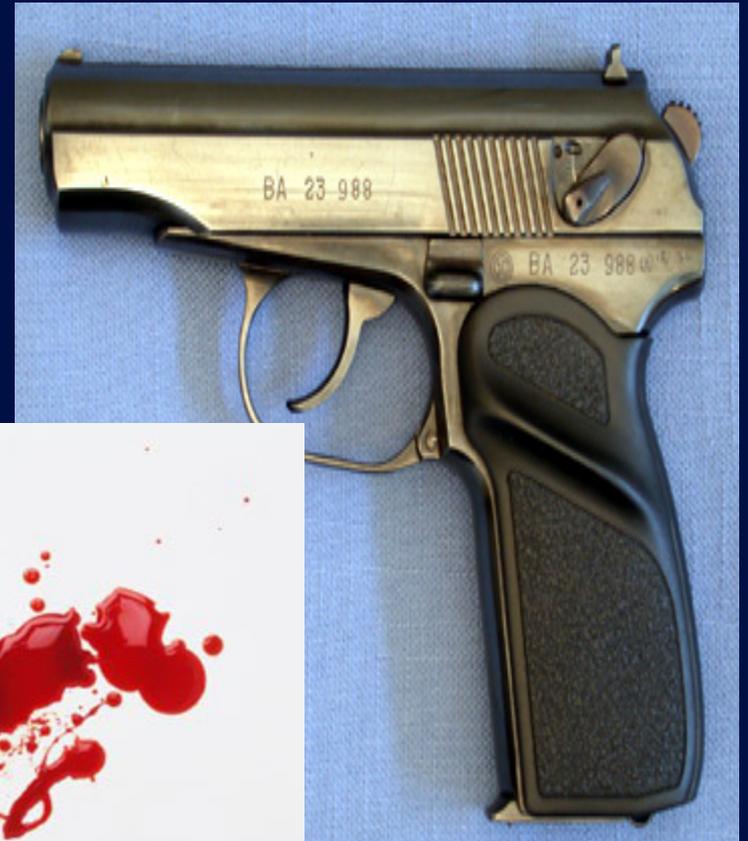
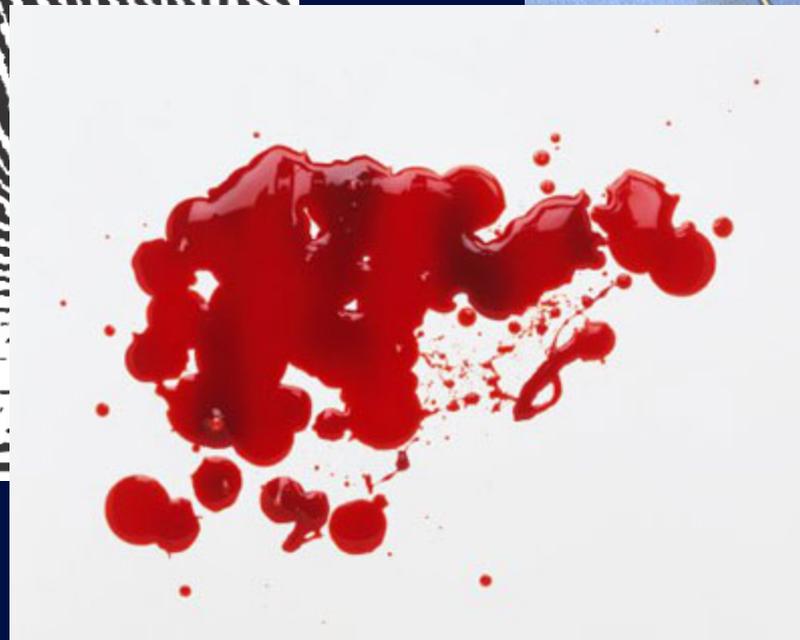
# VISIT, VIEW, PHOTOGRAPH AND DOCUMENT



# VISIT AND VIEW



# EVIDENCE



# JAIL VISITS



# DISCOVERY-CASE FILE

- ▣ Report
- ▣ Laboratory file
  - Report
  - Bench notes
  - Photos/diagrams
  - data
- ▣ Basis of opinion
  - limitations/assumptions
  - Studies
  - Experience/ Training
- ▣ All correspondence including all emails
- ▣ Chain of custody documents
- ▣ Standard Operating Procedures Manual

# REPORT

LOS ANGELES POLICE DEPARTMENT  
SCIENTIFIC INVESTIGATION DIVISION  
LATENT PRINT UNIT



## FORENSIC PRINT COMPARISON REPORT

DR# 08-03-28802	CRIME: 211
VICTIM	LOCATION:

“The prints were made by one and same person.”

of Jones, Andre

MAIN #                      SID # 08505745      FBI #                      OTHER#

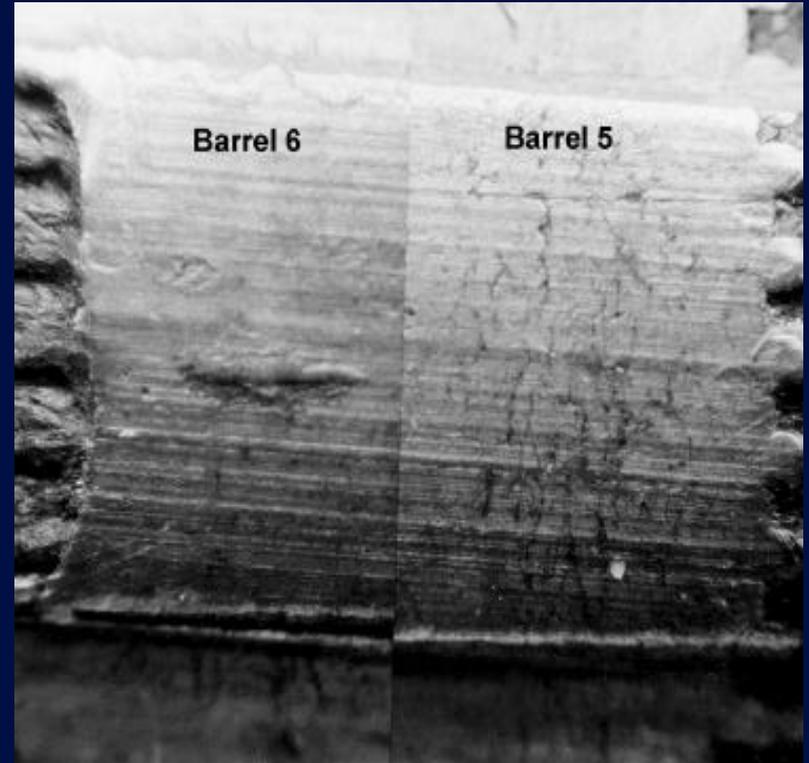
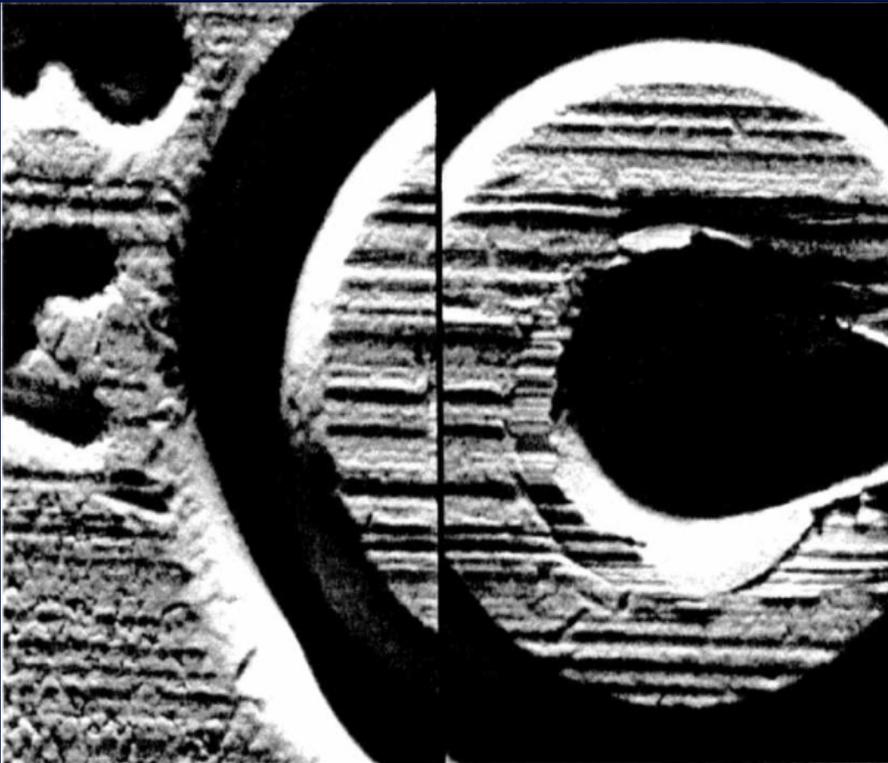
The prints were made by one and the same person.

All evidence has been retained in the Latent Print Section's File    Yes  No

Comparison Specialist Bang #C8882	Date Typed: 11/19/2008 Prepared By: Bang #C8882
Verifier / Serial # <i>[Signature]</i> C8824	Verifier / Serial # <i>[Signature]</i> G-8403

Comparison Specialist SIGNATURE *[Signature]*      Administrative Review SIGNATURE *[Signature]*

# PHOTOGRAPHS



# Photographs/Diagrams

Date 10/21/08	Case No. 1500/1600	Crime 211 BUS
Victim CLEAN PAWN SHOP		
Address 3421 S. LA BREA		
Prints Lifted From VS STORE ON TOP OF 4 <sup>th</sup>		
GLASS CASE FROM POE DOOR		
Prints Lifted By FRIETZ		Badge No. N2843

FILE NO. 0803 - 28802

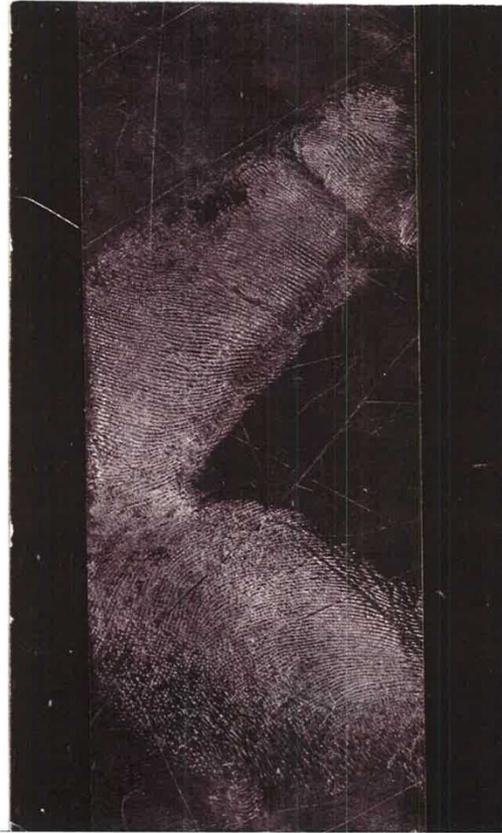
SKETCH

HC# 25900063 3/3L  
 Day, Dashawn  
 HS CAP# 11-19-08  
 OK SHG 943 11/11/08  
 SKLP 09824 11-20-08

HS CAP# 11-19-08  
 OK SHG 943 11/11/08  
 SKLP 09824 11-20-08  
 Day, Dashawn

Small text at bottom: State Forensic Prtg Labs, Inc. LPS100

Lift 3 - Reverse.tif



Lift 3 - Front.tif

# What Information did the Analyst/Examiner Have?

- ▣ Contact with Investigating Officer
- ▣ Contact with the District Attorney
- ▣ Confessions/ Admissions from your Client
- ▣ Priors of your client
- ▣ Scene Visit



# Correspondence

Page 1

INTRADEPARTMENTAL CORRESPONDENCE

November 4, 2008  
5.4.1

**TO:** Commanding Officer, Scientific Investigation Division

**FROM:** Commanding Officer, Southwest Detective Division

“This was **extremely violent in nature** and the unidentified suspects are still at large.”

[Empty box]

# Bench Notes

SEROLOGY ITEM DESCRIPTION NOTES

DR# 17-12-00828 INITIALS pp

ITEM	SAMPLE REMAINING	SEALED (P/N)	FROZEN (P/N) (SHELF)	DATE ITEM SAMPLED/EXAMINED	DATE RECEIVED FROM	DATE RETURNED TO
34		Y (type)	F	12/12/07	FSC 11/20/07	FSC 12/14/07
<p>See description on pg 5                      ⇒ used for phone test - pos      ⇒ phix for shipping to Cellmark</p>						
35		"	"	"	"	"
<p>See description on pg 5                      ⇒ used for phone test - pos      ⇒ phix for shipping to Cellmark</p>						
#32		"	"	11/15/07	"	"
<p>See description on pg 5                      ⇒ phix for shipping to Cellmark</p>						
#36		Y (Reverts type)	"	"	"	"
<p>See description on pg 5                      ⇒ phix for shipping to Cellmark</p>						

**Notes**  
 Cont. # containing

---

Page 11

- ▣ Prepared contemporaneously
- ▣ Describes what the examiner did
- ▣ Documents what was used up and what remains

# DISCOVERY- EXAMINER

- ▣ CV
- ▣ Proficiency test results
- ▣ Proficiency test files
- ▣ Personnel file
- ▣ Certification
- ▣ # of analyses examiner has made (of this type)
- ▣ # of times qualified as an expert on subject matter

# Investigate

- ▣ Education
- ▣ Certification
- ▣ Training (obtain materials)
- ▣ Publications
- ▣ Attendance at seminars
- ▣ Reports from other cases
- ▣ Google/Facebook/Twitter
- ▣ Prior testimony (**TRANSCRIPTS**)

# Transcripts

46

1 Q Did that process create any dust?  
2 A Yes.  
3 Q Can you describe that dust for us?  
4 A Grayish, like gray -- you know.  
5 Q Did you see that in the area?  
6 A Yes.

## PRIOR TESTIMONY

18 A Right.  
19 Q How big were the silos?  
20 A Well, I never did measure but it would hold a  
21 couple of car loads and about 20 tons of  
22 vermiculite.  
23 Q Was it as big as this room?  
24 A No, it wasn't that big. You could put two of them

# Personnel Files/ Civil Service

- ▣ Personnel files
- ▣ Examiner's Training File (includes proficiency test results) 1/yr
- ▣ Proficiency test files (available electronically)
- ▣ Civil Service Documents

# PROFICIENCY TEST RESULTS

## **Summary Comments**

The 12-571 Forensic Biology test was designed to allow participants to assess their proficiency in the identification and comparison of dried stains by means of body fluid screening and/or DNA profiling. Participants were supplied with two "known" bloodstains (Items 1 and 2) and two "questioned" stains (Items 3 and 4). Items 1 and 3 were blood collected from one female donor and Item 2 was blood collected from a male donor. The Item 4 mixture contained the blood of the Item 1 female donor and semen from a donor whose known blood standard was not provided to participants. (See Manufacturer's Information for preparation details.)

Data were returned by a total of 777 participants, 706 of whom reported DNA results. The remaining 71 participants reported only screening results.

### **Screening Test Results**

For Item 3, all 735 participants that returned test results for blood reported "positive". All 695 participants that returned test results for semen reported "negative". There were 235 participants that reported negative results for saliva and five that were inconclusive.

For Item 4, 734 participants returned results for blood and of those 731 were positive, two were inconclusive and one participant was negative for blood. There were 710 participants that reported positive for semen and one that reported negative results. All 247 participants that reported results for saliva were negative.

### **DNA Analysis Results**

Of the 706 participants reporting DNA results, 11 did not report interpretations stating that they analyzed the samples for database purposes only; one participant performed analysis on Items 1, 3 and 4 using a different amplification kit for each Item and did not report any interpretations.

Of the 694 participants that reported interpretations, all included the victim (Item 1) as a possible contributor to the Item 3 stain. There were 673 that included the victim (Item 1) as a possible contributor to the Item 4 mixture, two participants that excluded the victim and five that were inconclusive. There were 693 participants that excluded the suspect (Item 2) and one that included the suspect (Item 2) as a possible contributor to the Item 3 stain. There were 677 participants that excluded the suspect as a possible contributor to the Item 4 mixture and three that were inconclusive. Fourteen participants did not report interpretations for Item 4; most of these participants only performed mitochondrial testing and stated either that they do not perform mitochondrial testing on semen or that mitochondrial DNA is not interpretable.

Seventy-three participants reported allelic results that were inconsistent with the consensus/predistribution testing results. Forty of these reported additional alleles at one or more loci; twenty-three were missing alleles at one or more loci; eight reported inconsistent alleles at one or more loci and two participants reported a combination of additional alleles and inconsistent alleles at one or more loci. Additionally, there were forty-one participants that reported "\*" or other laboratory specific notations at various loci.

Of the 40 participants that reported additional alleles, 26 of these reported an additional allele "17.2" at locus D19 for Items 1, 3 and/or 4e. An additional nine did not report the "17.2" allele but mentioned it in their additional comments. Laboratories that commented on this allele stated one of the following possibilities: elevated stutter, amplification artifact, triallele or somatic mutation. One participant specifically mentioned that larger alleles have higher levels of stutter than smaller alleles. Additionally, eight participants reported an additional "18" allele at locus vWA for Item 4 with only one participant describing this allele as being possible stutter.

# Collaborative Testing Services Statement

“.....the results compiled in The Summary Report are not intended to be an overview of the quality of work performed in the profession and cannot be interpreted as such.”

“Our proficiency tests are designed primarily to meet accreditation standards, not to provide examiners with ‘real world casework-like samples.’”

# DISCOVERY-LAB

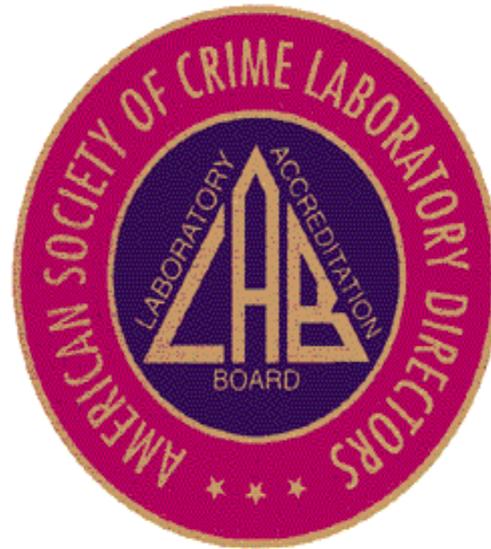
- ▣ Crime Lab  
<https://www.doj.state.wi.us/sites/default/files/dms/forensic-science-web.pdf>
- ▣ State Advisory/Oversight Reports
- ▣ Coverdell Investigation Documents
- ▣ Audit Reports (ASCLD-LAB)
- ▣ Internal audits
- ▣ Standard Operating Procedures Manual
- ▣ Validation Studies
- ▣ Quality Control-Assurance Docs/ Unexpected Results/Errors
- ▣ Corrective action docs and Contamination logs
- ▣ User manuals
- ▣ Maintenance Records

# Standard Operating Procedures Manual

	<b>MILWAUKEE POLICE DEPARTMENT</b>	
	STANDARD OPERATING PROCEDURE 740 – FORENSIC EVIDENCE COLLECTION	
GENERAL ORDER: 2014-01 ISSUED: July 31, 2014	EFFECTIVE: July 31, 2014	REVIEWED/APPROVED BY: Captain Regine Howard DATE: July 17, 2014
ACTION: Amends General Order 2011-17 (June 1, 2011)		WILEAG STANDARDS: 11.1.1, 11.1.2, 11.1.3, 11.1.4, 11.1.5, 11.1.6, 11.1.7, 11.1.8, 11.2.1
<b>740.00 PURPOSE</b>		
<p>The purpose of this standard operating procedure is to establish guidelines regarding the collection, preservation, and documentation of forensic evidence and the utilization of forensic services. These duties include but are not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ providing photographic services for the department and other agencies;</li> <li>▪ providing crime scene examinations in the area of evidence collection and latent print development;</li> <li>▪ obtaining, comparing and identifying fingerprints from dead human bodies;</li> <li>▪ identifying prisoners through fingerprint comparisons;</li> <li>▪ retrieval and processing of forensic video evidence;</li> <li>▪ processing and analysis of document evidence;</li> <li>▪ comparison and identification of crime scene latent prints to known persons;</li> <li>▪ providing testimony regarding forensic analysis or examination in court proceedings;</li> <li>▪ records management regarding forensic services, criminal records, fingerprint databases, latent, mug shot and photographic evidence;</li> <li>▪ retrieval of digital and computerized evidence.</li> </ul>		
<b>740.05 GENERAL (WILEAG 11.1.1, 11.1.2, 11.1.5, 11.1.6, 11.1.7, 11.1.8)</b>		
<b>A. TRAINING</b>		
<p>The department will provide or authorize training regarding the detection, collection, preservation and documentation of physical, DNA, and computer / electronic evidence in conformity to established laws and department guidelines. Specialized training will be provided for crime scene trained (CST) officers, forensic investigators, and other personnel assigned to the Forensics Section and High Technology Unit. Updated training will be provided as necessary. (WILEAG 11.1.5.4, 11.1.8.4)</p>		
<b>B. AVAILABILITY</b>		
<p>Forensic services by trained forensic investigators and/or CST officers shall be accessible for 24 hours/7 days a week.</p>		

# ACCREDITATION

# Audits



Laboratory Accreditation  
Board

# LAB Audit Reports-CARs

QUALITY ASSURANCE AUDIT

FOR

(E) DOES THE LABORATORY HAVE A WRITTEN OR SECURE ELECTRONIC CHAIN OF CUSTODY RECORD WITH ALL NECESSARY DATA WHICH PROVIDES FOR COMPLETE TRACKING OF ALL EVIDENCE?

Original inspection finding:

In many of DNA case records reviewed, the case documentation of the evidence retained does not agree with the inventory listing on the retention envelopes. The laboratory's Operation Manual (Sec. 1220) requires case documentation if all or part of the evidence has been retained.

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Signature)

# ASCLD-LAB Audit Report

1.4.3.4 (I) WAS EACH EXAMINER PROFICIENCY TESTED ANNUALLY IN EACH SUBDISCIPLINE IN WHICH CASEWORK WAS PERFORMED?

**The firearms/toolmark examiners are performing footwear comparisons and are not being proficiency tested in this sub-discipline.**

# INTERNAL AUDIT REPORTS

# Statement of Attorney General J.B. Van Hollen on Missing Ellis Sample

- ▣ *In 2001, DNA Data Bank and Crime Lab personnel confirmed that the DNA came from another individual, identified the sample as a duplicate, and assigned the records to that person. There were no protocols in place for addressing this set of facts, though in hindsight, I believe the Crime Lab should have notified Corrections.*
- ▣
- ▣ *We are currently reviewing our records in an attempt to identify other instances where this may have occurred. More broadly, I have **directed an internal audit** to identify individuals for whom the DNA Data Bank should have a sample, but for some reason no sample was submitted. While this work is ongoing, our initial analysis shows that there may be at least 12,000 people falling into this category, and that the majority are or were under the custody or supervision of the Department of Corrections.*

# Was There an Internal Audit?

- ▣ Dirk Janssen, the chemistry supervisor at Wisconsin's state crime lab, was reprimanded in August 2009 for failing to obtain peer reviews in 27 toxicology cases involving drug evidence. Following a review by the lab director, only five of the cases were found to meet required standards; of the others, half needed corrections.

Was this reported to ASCLD-LAB? Was this reported to the Coverdell entity?

# Coverdell Complaint

CORRESPONDENCE/MEMORANDUM		DEPARTMENT OF JUSTICE
Date:	October 12, 2006	
To:	Michael G. Ozykowski, Administrator Division of Criminal Investigation Kevin Patten, Administrator Division of Legal Services	
From:	Richard A. Lucht, Special Agent Division of Criminal Investigation	
Subject:	Attorney General E. Tingling's Complaint against Genesee Laboratories Concerning Crime Laboratory	

On September 13, 2006, I was assigned to investigate the complaint filed with the Department of Justice by Attorney General E. Tingling alleging negligence or misconduct of the Wisconsin State Crime Laboratory, which may have affected the integrity of forensic results.

After being required, public release, in regard to disciplinary actions of employees at the State Crime Laboratory. Based on these documents Attorney Tingling alleged that serious causes articulated in the public records amounted to negligence or misconduct. Attorney Tingling then called for an investigation of the following allegations:

1. Decontamination of DNA analysis. Settlement Agreement of May 18, 2005.
2. Labeled fingerprint identifications. Correspondence of June 13, 2002.
3. Fingerprint general identification. Correspondence of July 29, 2004.
4. Fingerprint process. Letter of Rogovin II, September 7, 2004.
5. Serial Interlocks. Correspondence of November 27, 2004.
6. Serial Interlocks by an AFIS specialist. Memorandum of June 2, 2005.

The subsequent investigations were conducted by interviewing supervisors, reviewing investigative reports generated by these supervisors, reviewing State Crime Laboratory records. This and speaking directly with one of the alleged offending individuals.

The result of my immediate inquiry was that no instance of serious negligence or misconduct substantially affecting the integrity of the forensic results was found in any of the three ordered areas of concern. In addition, no systematic problem was identified that would have resulted in the aforementioned complaints. To that end, the opposite was found to be true, in that the State Crime Laboratory has a system of checks and balances designed for the specific purpose of identifying human oversight.

All of the aforementioned matters were found to be isolated personal errors, which were handled through normal acceptable means of personnel and State Crime Laboratory procedures.

Division of Criminal Investigation and  
Division of Legal Services- WI DOJ

# ATTORNEY GENERAL VAN HOLLEN ANNOUNCES COMPLETION OF STATE CRIME LABORATORY INVESTIGATION

- In a complaint filed with the Department of Justice on September 9, 2008, Brookfield criminal defense attorney Jerome Buting alleged that the conduct of the laboratory employees may have affected the integrity of the forensic results provided by the Madison and Milwaukee crime laboratories. To further guarantee public confidence in the work performed by the state's crime laboratories, Van Hollen directed the Division of Criminal Investigation to conduct a second investigation.
- "The integrity of Wisconsin's criminal justice system depends on the reliability of the work performed by the state's crime laboratories," said Van Hollen. "The six personnel matters at issue were known to and investigated by the Wisconsin Department of Justice long before Mr. Buting wrote his letter. They did not affect the reliability of forensic results in any criminal cases. The laboratories' system of quality assurance worked."
- The names of the laboratory employees have been redacted to protect their privacy interests

**Were the names disclosed to defense attorneys? Was the internal audit turned over?**

**LOGS OF UNEXPECTED  
RESULTS AND  
CORRECTIVE ACTION**

# Unexpected Result/Corrective Action

Description of problem: DNA was detected in the male and epithelial batch samples. The two profiles matched each other and was from a single male donor. No samples in the case matched the profile.

How resolved: The unknown profile was searched against The CODIS database. A hit was obtained with LASD DNA analyst (JB). This analyst had no involvement in the extraction of the two Cases. The mechanism of contamination is unknown.

Change in Procedure: No.

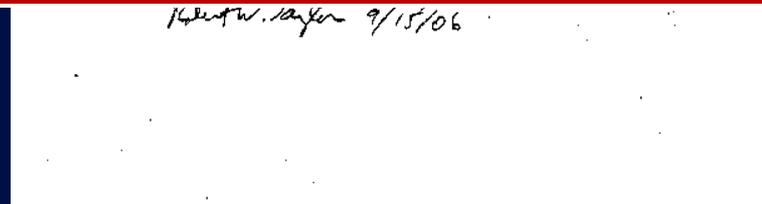
Reviewed by: *AS* 3-21-06  
Date Prepared: 3-21-06

*GS* 3-21-06  
*JE* 3/21/06  
*AM* 3/21/06  
*SM* 3/22/06

# Unexpected Result/Corrective Action



Low level contamination was detected at four loci. The sample was re-amplified however the Same results were obtained. All other controls yielded expected results.



ORANGE COUNTY CRIME LAB

Corrective Action Report

CA 10-025

Notified Date 10/8/2010 Status Closed: Nonconforming Work  
Sections DNA FRs 10-49134  
Source Internal Reported By E. Thompson  
Division Policy ASCLD/LAB Criteria  
Classification Analyst - Examiner (R. Baldwin)  
Root Cause The supervisor was confused by the e-mail sent to him by another DNA supervisor; therefore he thought he was talking to the case investigator when it was actually the victim. When the supervisor realized it was

A DNA supervisor believing he was speaking to an investigator disclosed case information to a victim. However, once he realized he was speaking to the victim he continued to disclose additional information

<Date: 12/7/2010 2:37:26 PM> <Action: Corrective Completed> <By: PIL>  
Description: Memo from E. Thompson to P. Laferty dated 11/16/2010 outlining the corrective actions taken which include counseling the supervisor not to give casework information to a victim and having the supervisor read the OCCL QSM 2.1 and the OC Sheriff Confidentiality Policies and sign a memo acknowledging that he read and understood the policies. A copy of the memo will be placed in the supervisors drop file.

<Date: 12/7/2010 3:10:26 PM> <Action: Closed> <By: PIL>  
Description:

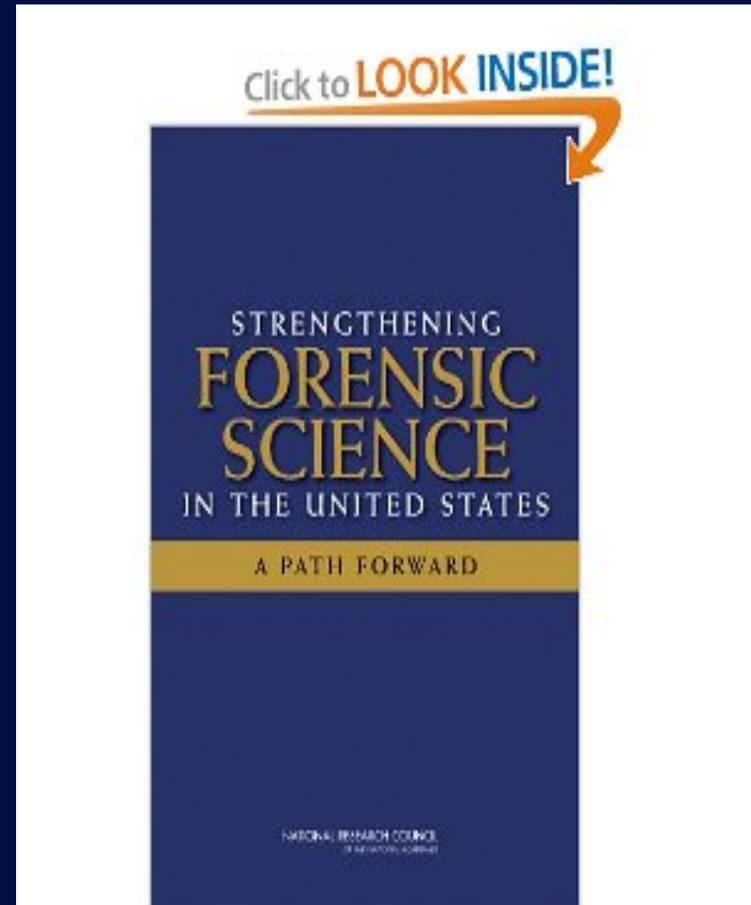
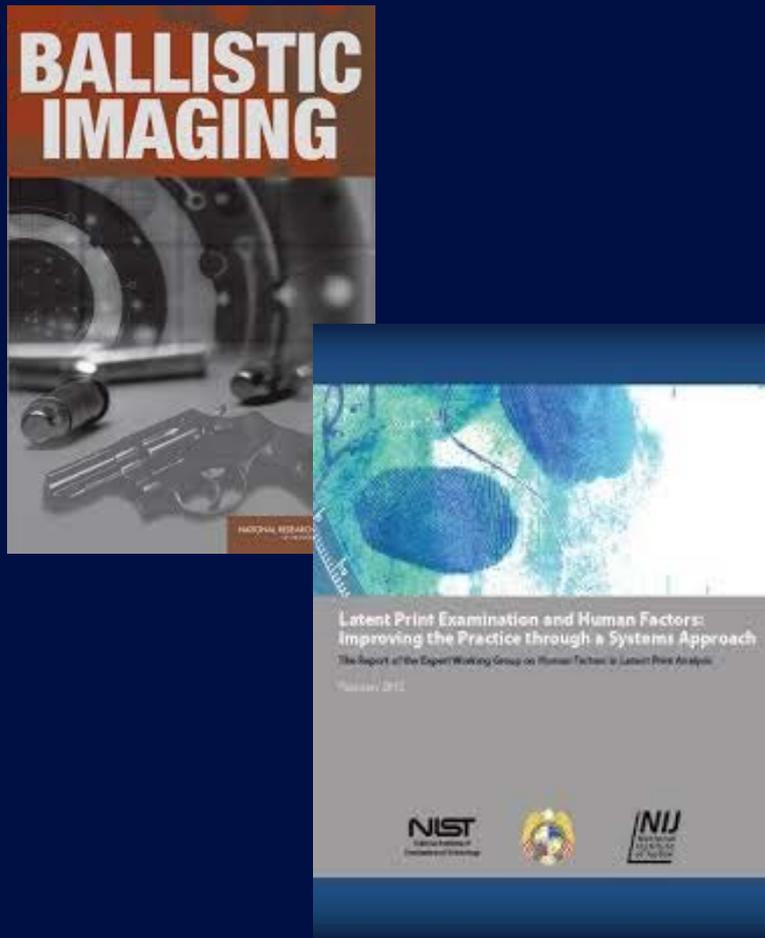
Supv: N/A PW      Supv: N/A PW      Supv: N/A PW      DNA Tech Leader: N/A PW  
DNA Lab Director: [Signature]      Director: [Signature] 12/7/10      QA Officer: [Signature] 12/7/10      Analyst: [Signature] 12/7/10  
Rev (2.0)      Page 1 of 1      10-025

# Other Sources of Information

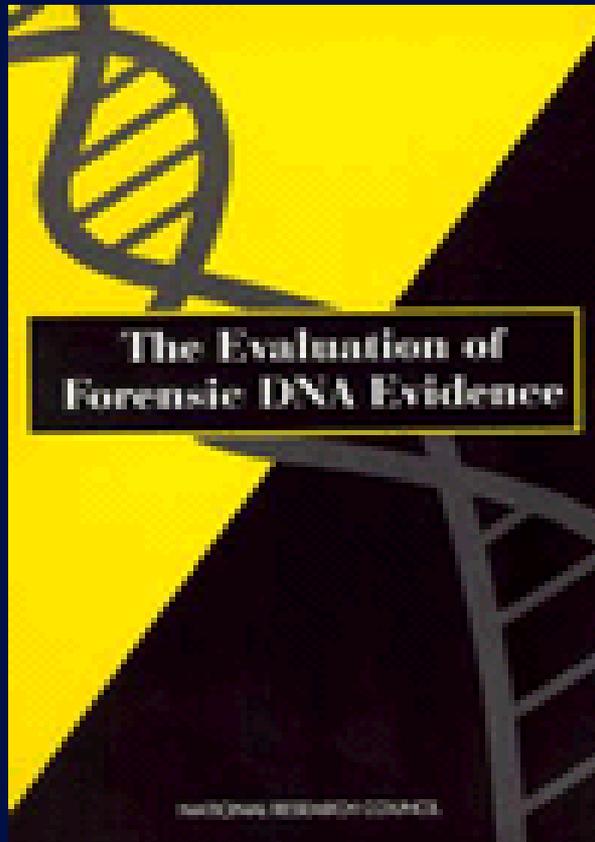
- Newspapers
- NAS Reports/ NIST Report
- SWG websites
- National Commission on Forensic Science
- Forensic Science Standards Board/  
Organization of Scientific Area Committees

<http://www.nist.gov/forensics/september-osac-newsletters.cfm>

# EDUCATE YOURSELF



# AND MORE



# ADMISSIBILITY CHALLENGES

Considerations:

- ▣ Strength of challenge
- ▣ Significance of evidence
- ▣ Chance of success
- ▣ Other considerations
- ▣ Showing your hand

# Admissibility

## ▣ DNA

- Complex Mixtures Interpretation and Statistic  
SWGDM 2010 Guidelines
- LCN (results and statistics)
- Probabilistic Genotyping Software
- MtDNA/Y-STRs (Statistics)
- Databases (Statistics)

# Admissibility

- ▣ Pathology
  - Time of death
  - Cause of Death
  - Time of injuries
- ▣ GSR
- ▣ Pattern Impression Individualization Statements
- ▣ Hair Comparison
- ▣ Bitemark Comparison
- ▣ Cell phone tower mapping

# Experts



# Defense Testing



© 1997 by Randy Glasbergen.  
www.glasbergen.com

**"You don't look anything like the long haired, skinny kid I married 25 years ago. I need a DNA sample to make sure it's still you."**

# INTERVIEWING THE EXAMINER IN PREPARATION FOR A HEARING OR TRIAL

CBT101-FT



"Sequencing? No, this baby tells us  
how much we can charge for genome data."

# Interviewing the Examiner

- ▣ What is the basis for each of the expert's conclusions?
- ▣ Where are the subjective interpretations?
- ▣ What are the limits of the expert's expertise?
- ▣ What exactly did the expert do and not do in your case?
- ▣ What are the limits of the expert's factual knowledge?
- ▣ Did the examiner deviate in any way from the protocol?

# PREPARING THE CROSS

- ▣ IDENTIFY THE THEORY OF THE CASE AND THE THEORY OF THE EXPERT
- ▣ WRITE OUR YOUR CROSS
  - Identify 3-5 points
  - Each becomes a chapter
  - Order facts from general to specific to build to a point
  - Don't ask the ultimate question
- ▣ USE THE PROPER VOCABULARY

# Theories of Expert Cross

- ▣ Embrace the opinion
- ▣ Discredit the expert
- ▣ Discredit the “science”
- ▣ Limit the “science”
- ▣ Establish alternate explanations consistent with your theory



Kanin

*"The DNA sample from the mink fibres found in the suspect's car matched the DNA sample from the mink coat found at the scene of the crime, so I'm thinking, maybe these minks were twins?"*

# QUESTIONS ?

