REPORT OF THE

TEXAS FORENSIC SCIENCE COMMISSION

TARRANT COUNTY
MEDICAL EXAMINER'S OFFICE
CRIME LABORATORY SELF-DISCLOSURE

OCTOBER 5, 2012

I. BACKGROUND

A. History and Mission of the Texas Forensic Science Commission

In May 2005, the Texas Legislature created the Texas Forensic Science Commission ("TFSC" or "Commission") by passing House Bill 1068 (the "Act"). The Act amended the Code of Criminal Procedure to add Article 38.01, which describes the composition and authority of the TFSC. *See* Act of May 30, 2005, 79th Leg., R.S., ch. 1224, § 1, 2005. The Act took effect on September 1, 2005. *Id.* at § 23.

The Act requires the TFSC to "investigate, in a timely manner, any allegation of professional negligence or misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility or entity." TEX. CODE CRIM. PROC. art. 38.01 § 4(a)(3). The Act also requires the TFSC to develop and implement a reporting system through which accredited laboratories, facilities, or entities may report professional negligence or misconduct, *and* require all laboratories, facilities, or entities that conduct forensic analyses to report professional negligence or misconduct to the Commission. *Id.* at § 4(a)(1)-(2).

The term "forensic analysis" is defined as a medical, chemical, toxicological, ballistic, or other examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action. *Id.* at art. 38.35(4). The statute excludes certain types of analyses from the "forensic analysis" definition, such as latent fingerprint analysis, a breath test specimen, and the portion of an autopsy conducted by a medical examiner or licensed physician.[1]

[1] For complete list of statutory exclusions, *see* TEX. CODE CRIM. PROC. art. 38.35(a)(4)(A)-(F) & (f).

The statute does not define the terms "professional negligence" and "professional misconduct," though the Commission has defined those terms in its policies and procedures. (TFSC Policies & Procedures at 1.2.) The Commission also released additional guidance for accredited crime laboratories regarding the categories of nonconformance that may require mandatory self-reporting; this guidance is provided with the self-disclosure form located on the Commission's website at http://www.fsc.state.tx.us/documents/LABD.pdf.

The FSC has nine members—four appointed by the Governor, three by the Lieutenant Governor and two by the Attorney General. *Id.* at art. 38.01 § 3. Seven of the nine commissioners are scientists and two are attorneys (one prosecutor and one criminal defense attorney). *Id.* The TFSC's presiding officer is designated by the Governor. *Id.* at § 3(c).

The TFSC's policies and procedures set forth the process by which it determines whether to accept a complaint, as well as the process used to conduct an investigation once a complaint is accepted. (*See* TFSC Policies & Procedures at § 3.0, 4.0.) The ultimate result of an investigation is the issuance of a final report.

B. Attorney General Opinion No. GA-0866

On January 28, 2011, the Commission asked Texas Attorney General Greg Abbott to respond to three questions regarding the scope of its jurisdiction under its enabling statute (TEX. CODE CRIM. PROC., art. 38.01). Interested parties submitted briefs on the legal issues contained in the opinion request. On July 29, 2011, the Attorney General issued the following legal guidance:

1. The TFSC lacks authority to take any action with respect to evidence tested or offered into evidence before September 1, 2005. Though the TFSC has general authority to investigate allegations arising from incidents that occurred prior to September 1, 2005, it is prohibited, in the course of any such investigation, from considering or evaluating evidence that was tested or offered into evidence before that date.

2. The TFSC's investigative authority is limited to laboratories, facilities, or entities that were accredited by the Texas Department of Public Safety ("DPS") at the time the analysis took place.

3. The Commission may investigate a field of forensic science that is neither expressly included nor expressly excluded on DPS' list of accredited forensic disciplines, as long as the forensic field meets the statute's definition of "forensic analysis" (*See* Article 38.35 of the Act) and the other statutory requirements are satisfied.

The Commission's review of the Tarrant County Medical Examiner's Crime Laboratory's ("TCMECL") self-disclosure falls within its statutory jurisdiction as set forth in the Opinion for the following reasons: (1) the incident in question occurred after the effective date of the Act; (2) TCMECL is accredited by DPS; and (3) serology and DNA testing are DPS-accredited forensic disciplines.

C. Limitations of this Report

No finding contained herein constitutes a comment upon the guilt or innocence of any individual. A final report by the TFSC is not prima facie evidence of the information or findings contained in the report. TEX. CODE CRIM. PROC. art. 38.01 § 4 (e); FSC Policies and Procedures § 4.0 (d). The Commission does not currently have enforcement or rulemaking authority under its statute. The information it receives during the course of any investigation is dependent upon the willingness of concerned parties to submit relevant documents and respond to questions posed. The information gathered has not been subjected to the standards for admission of evidence in a courtroom. For example, no individual testified under oath, was limited by either the Texas or Federal Rules of Evidence (*e.g.*, against the admission of hearsay) or was subjected to formal cross-examination under the supervision of a judge. The primary purpose of this report is to encourage the development of forensic science in Texas.

II. SUMMARY OF COMPLAINT AND KEY FACTS

A. TCMECL Disclosure #12-03 History

On March 15, 2012, the TCMECL notified the Commission by telephone about a potentially significant nonconformance in the lab's DNA section. The issue was discovered when a senior forensic biologist retrieved a sexual assault kit from storage on March 14, 2012 for the purposes of performing further testing on the kit. The evidence in the kit had already undergone initial serological screening, which included an acid phosphatase test to determine the presence or absence of spermatozoa. The senior forensic biologist retrieved the kit from storage in response to a request for additional testing by the prosecutor in the case. Upon retrieving the evidence from storage, the senior biologist noticed the seals on two of the items in the kit were not broken. This raised an immediate red flag because the analyst who conducted the serological screening indicated negative acid phosphatase results on *all* samples in a lab report issued on May 11, 2011.

The Commission's General Counsel instructed the TCMECL to complete a laboratory self-disclosure form and submit the form with relevant attachments to the Commission. The laboratory submitted its self-disclosure on April 2, 2012. (*See* **Exhibit A**.)

B. TCMECL Internal Investigation

In recognition of the potentially serious nature of the nonconformance identified by the senior biologist, the TCMECL suspended the analyst in question effective March 15, 2012, pending the results of the internal investigation. (*See* **Exhibit B** at 1.) Throughout the course of his tenure with the TCMECL, the analyst's forensic work was limited to serology screening, an example of which is acid phosphatase testing used to determine the presence or absence of spermatozoa. If spermatozoa had been identified as a result of the initial serological screening,

further DNA testing would have been performed in an attempt to identify the donor. Such testing would have been performed by a forensic biologist with appropriate training and credentials.

As noted above, the TCMECL also notified the Commission and the Tarrant County District Attorney's Office of the nonconformance on March 15, 2012. On March 23, 2012, the analyst formally resigned from his position with the TCMECL. At the time of the analyst's suspension and subsequent resignation, approximately twenty cases assigned to him were in some stage of technical or administrative review. The TCMECL re-assigned all of these cases to senior forensic biologists within the laboratory. Each senior biologist was instructed to: (1) complete the re-work of cases in progress; (2) complete the re-work of cases in the process of technical or administrative review; and (3) begin work on cases in the analyst's custody but on which work had not yet started. (*Id.* at 4.) Because the analyst in question was a serologist who only performed initial screening, and was *not* a DNA analyst, his serology duties for new cases were assigned on a rotating basis to the senior forensic biologists in the laboratory pending the hiring of a replacement.

The TCMECL immediately initiated retroactive re-examination of casework for the six-month period surrounding the analysis in question. The laboratory examined every case during the period for which it had evidence in storage. The re-examination encompassed over 100 cases (constituting over 500 items of evidence) for the period from February 11, 2011 through August 26, 2011. Testing for this group of cases was completed between March 17, 2012 and March 18, 2012. All results from the re-testing were consistent with the initial reports issued by the examiner in question. (*Id.* at 1.)

TCMECL leadership also interviewed the analyst in question. He "could not recall the specific case in which the nonconformity was discovered, and could not identify anything in the normal process that would routinely cause such nonconformity to occur." (*Id.* at 1.) In conducting its root cause analysis, the TCMECL noted the analyst was experiencing "significant distractions" in his personal life during the one-year time period during which the deviations occurred. (*Id.* at 2.) However, the analyst's inability to recall the analyses in question makes it impossible to determine whether the issues are attributable, in whole or in part, to these distractions.

C. Subsequent Phases of TCMECL Internal Investigation

While conducting the re-examination, analysts found an additional case in which the seal on an item of evidence had not been broken, despite the fact that the analyst had reported negative acid phosphatase screening results on the sample in that case. (*Id.*) Upon discovering this case, TCMECL management decided to examine the seals on all of the analyst's casework for the entire period of his employment. (*Id.*) This review was conducted by the lab's DNA Technical Leader and Quality Manager, and began on March 20, 2012. Seals were examined in approximately 1,000 cases spanning the period from the analyst's hiring in June 2006 through his resignation in March 2012. (*Id.*)

The review of this evidence yielded three additional cases in which seals were not broken by the analyst. In all three cases, the analyst reported negative findings for screening on all items of evidence in the sexual assault kit. (*Id.*) Though the analyst did not recall the cases and did not offer an explanation for failing to test all items of evidence, it appears he may have limited his testing to the items of evidence most likely to yield results based on information included in the case file (*e.g.*, testing of vaginal slides but not anal slides where the victim's allegations were

limited to digital penetration.) This selective testing constituted a failure to examine items of evidence less likely to yield results based on the factual scenario described by the victim, though lab reports indicated such items had been tested and showed a negative result.

The TCMECL DNA section re-tested the remaining cases found to have unopened seals. In four of the five total cases discovered, evidence was available for re-testing. The re-testing confirmed the initial reported results in all cases. (*Id.*)

D. Disclosures Made to Stakeholders by TCMECL

The TCMECL notified the following stakeholders regarding the non-conformances at issue in this case:

1. On March 15, 2012, the TCMECL notified the TFSC's General Counsel of the issues identified by telephone. TCMECL management also filed a self-disclosure form and supporting material on April 2, 2012.

2. On March 15, 2012, the TCMECL notified the Chief Felony Prosecutor for the Tarrant County District Attorney's office. The TCMECL conducted additional follow-up discussions with the District Attorney's office on March 23, 2012. Information was provided for all discrepant cases affecting Tarrant County, and the option for re-testing was extended to the District Attorney indefinitely.

3. On March 22, 2012, the TCMECL notified the Quality Assurance Manager for the Texas Department of Public Safety's crime laboratory system regarding the issues identified, and provided an additional update regarding the investigation's status on March 28, 2012. The DPS Quality Assurance Manager agreed with the steps taken by the laboratory and provided suggestions and guidance on additional possible corrective actions. On April 10, 2012, the TCMECL submitted a corrective action report to DPS.

4. On March 28, 2012, the TCMECL notified the Executive Director of ASCLD-LAB, Ralph Keaton, and provided information regarding the nature of the nonconformance. On April 10, 2012, the TCMECL submitted a corrective action report to ASCLD-LAB.

5. On April 3, 2012, the TCMECL notified the Johnson County District Attorney. Information was provided for all discrepant cases affecting Johnson County, and the option for re-testing was extended indefinitely.

6. On April 4, 2012, the TCMECL sent a memorandum to affected law enforcement submitting agencies and prosecutors in the five cases in which seals were found unopened. The memorandum included an explanation of the deviations that occurred and amended reports reflecting the re-testing performed in each case.

7. On April 12, 2012 and April 13, 2012, the TCMECL Laboratory Director and DNA Technical Leader attended the Commission's Complaint Screening Committee meeting and full Commission meeting and responded to questions raised by Commissioners.

E. Additional Corrective Action

The TCMECL took the following corrective action in addition to examiner suspension, re-testing, re-evaluation of evidence seals and disclosure to stakeholders:

1. The TCMECL adopted a policy to enhance the existing comprehensive, documented training program and competency testing used before examiners may assume casework. The training program will be tailored to the employee's education, prior employment and experience, and review of proficiency test data. A forensic biologist was hired to replace the analyst in question on May 21, 2012 and has participated in the training. (*Id.* at 3-4.)

2. The TCMECL will monitor all new forensic biologists, including independent verification of screening results in a subset of cases. The monitoring program will be expanded beyond technical review to include independent verification in a subset of cases. (*Id.*)

3. The TCMECL does not currently have a full-time dedicated Quality Manager. The responsibilities of Quality Manager have been performed by a senior forensic biologist who also conducts casework. To ensure the laboratory has a dedicated Quality Manager whose responsibilities are comprehensive and independent from the casework conducted in the laboratory, TCMECL management has requested funds for a full-time dedicated Quality Manager in its FY'2013 budget. (*Id.*)

4. The TCMECL's current Quality Manager (or any individual subsequently hired for this position in a dedicated capacity) will conduct random monthly reviews of evidence in storage (before the evidence is returned to the submitting agency) *in all sections of the laboratory*. The random review is designed to ensure evidence is labeled and sealed properly, and to ensure lab reports accurately reflect the forensic analysis performed in the case. (*Id.*)

5. The Quality Manager will maintain a checklist of all corrective action items to monitor completion of tasks on an ongoing basis. (*Id.* at 4.)

III. TFSC INVESTIGATION

A. Statutory Requirement for Written Report

An investigation under the TFSC's enabling statute "must include the preparation of a written report that identifies and also describes the methods and procedures used to identify: (A) the alleged negligence or misconduct; (B) whether the negligence or misconduct occurred; and (C) any corrective action required of the laboratory, facility, or entity." *Id.* at 4(a)(3)(b)(1). A TFSC investigation may include one or more: (A) retrospective reexaminations of other forensic

analyses conducted by the laboratory, facility, or entity that may involve the same kind of negligence or misconduct; and (B) follow-up evaluations of the laboratory, facility, or entity to review: (i) the implementation of any corrective action required . . . . ; or (ii) the conclusion of any retrospective reexamination under paragraph (A). *Id.* at 4(a)(3)(b)(2).

B. TFSC Review Process

On April 13, 2012, the Commission voted to elect a three-member investigative panel to review the disclosure. Commissioner Nizam Peerwani abstained from discussion and voting in all matters related to the TCMECL disclosure throughout the course of the investigation due to his role as Chief Medical Examiner for Tarrant County. The TCMECL Disclosure Panel includes the following members: Dr. Art Eisenberg (Chairman); Dr. Garry Adams (replaced by Dr. Brent Hutson at the Commission's July 2012 meeting); and Mr. Robert Lerma. Panel members reviewed documents submitted by the TCMECL during an information-gathering teleconference held on May 4, 2012 and determined what additional information might be necessary to assist the Commission in conducting deliberations.

On June 4, 2012, the investigative panel discussed the results of the laboratory's internal investigation including the retroactive review of cases and stored evidence, and voted on recommendations for the full Commission during a public meeting held at the Texas State Capitol. Commission staff also reviewed documents, conducted follow-up inquiries as appropriate (*see* **Exhibit C**) and consulted with the Executive Director of ASCLD-LAB, the Deputy Assistant Director of DPS, the Quality Manager of DPS, the Chief Felony Prosecutor in the Tarrant County District Attorney's Office and TCMECL management.

After reviewing the results of the internal investigation conducted by the TCMECL, the investigative panel asked the laboratory for additional information regarding the following subject areas: (1) possibility of interviewing the analyst in question; (2) copies of any counseling

or other personnel documentation regarding the issues affecting the analyst during the time period in question; (3) confirmation that the TCMECL contacted all affected law enforcement agencies and provided an opportunity to return evidence for re-examination as appropriate.

The Human Resources division responsible for the TCMECL declined to provide contact information pursuant to its policy not to provide contact information for current or former employees. The Commission discussed the issue at its July meeting and determined that though it is generally preferable to interview all individuals involved in a nonconformance of this nature, the Commission: (1) has collected sufficient documentary evidence to reach a conclusion in this case; (2) is unlikely to receive any additional feedback from the analyst beyond the lack of recollection expressed to TCMECL management; and (3) is without statutory authority to compel the analyst to respond in any event.

With respect to the second follow-up request, no documentation was found regarding counseling of the analyst. The laboratory manager recalls speaking with the analyst on one occasion regarding compliance with a new policy regarding work timeliness, but the discussion did not rise to a level where it would require documentation in the analyst's personnel file. With respect to the third follow-up inquiry, laboratory management confirmed it has contacted all affected law enforcement agencies and provided them an opportunity to return evidence depending upon the posture of the case.

At its June 4, 2012 meeting, the investigative panel voted to recommend to the full Commission that sufficient re-testing was performed during the internal investigation, and that no further re-testing was necessary under the circumstances. The panel also voted to recommend that the TCMECL be commended for its swift and thorough response. The panel decided to defer a discussion regarding professional negligence or misconduct to the full Commission.

On July 13, 2012, the full Commission voted to accept the findings of the TCMECL investigative panel. The Commission also voted to issue a finding of professional misconduct against the analyst in question. A discussion of the full Commission's observations, findings, and recommendations for follow-up is provided below.

C. Observations

The Commission recognizes that the failure by a forensic analyst to test evidence while reporting results on that evidence is one of the most serious violations that can occur in a crime laboratory. As set forth in ASCLD-LAB's *Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Scientists*, forensic scientists are obligated to conduct full and fair examinations. Conclusions must be based on "the evidence and reference material relevant to the evidence, not on extraneous information, political pressure, or other outside influences." (*See* **Exhibit E** at 31.) In addition, forensic scientists must "honestly communicate with all parties (the investigator, prosecutor, defense and other expert witnesses) about all information relating to their analyses, when communications are permitted by law and agency practice." (*Id.*) The forensic analyst in this case failed to comply with these principles. Though the re-testing of all cases confirmed the initial results, law enforcement and prosecuting authorities relied upon inaccurate information in determining whether to pursue further investigation or prosecution against the alleged offender. The fact that the initial results were confirmed by re-testing, though arguably less impactful on individual cases, does not alter the tremendous risk that misleading forensic reporting will undercut the public's faith in the reliability and integrity of the forensic analysis conducted by the laboratory. Moreover, a test that reports negative findings incorrectly may seriously impede the ability of law enforcement and prosecutors to hold an individual who commits an offense responsible for that offense.

When faced with such a situation, the manner in which a crime laboratory responds is key to ensuring the accuracy and integrity of forensic analysis performed by the laboratory, as well as public perception regarding the quality and reliability of work performed by the lab. The Commission commends the TCMECL for its swift and thorough response to the serious nonconformances in this case. As outlined above, the TCMECL took deliberate and decisive steps to: (1) remove the analyst in question from casework; (2) conduct reasonable re-examination of cases; (3) review the evidence packaging for 1,000 cases representing the entire body of the analyst's work in the possession of the TCMECL; (4) notify affected agencies and extend the option of re-examination in any case deemed by law enforcement and/or the affected prosecutor to merit re-examination; (5) initiate various additional corrective actions designed to protect against future recurrence of a similar incident; and (6) ensure all agencies with oversight and/or regulatory authority were notified promptly of the situation. The Commission encourages other crime laboratories in Texas facing issues such as those described herein to take a similarly proactive and transparent approach.

D. Negligence/Misconduct Determination

The Commission's enabling statute requires it to investigate, in a timely manner, any allegation of professional negligence or misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility, or entity. TEX. CODE CRIM. PROC. art. 38.01 § 4(a)(3). The term "forensic analysis" means a "medical, chemical, toxicologic, ballistic, or other expert examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action. *Id.* at 38.35 (a)(4).

While the terms "professional negligence" and "professional misconduct" are not defined in the statute, the Commission has defined these terms in its policies and procedures, as follows:

> "Professional Misconduct" means, after considering all of the circumstances from the actor's standpoint, the actor, through a material act or omission, deliberately failed to follow the standard of practice generally accepted at the time of the forensic analysis that an ordinary forensic professional or entity would have exercised, and the deliberate act or omission substantially affected the integrity of the results of a forensic analysis. An act or omission was deliberate if the actor was aware of and consciously disregarded an accepted standard of practice required for a forensic analysis." (TFSC Policies & Procedures at 1.2.)
>
> "Professional Negligence" means, after considering all of the circumstances from the actor's standpoint, the actor, through a material act or omission, negligently failed to follow the standard of practice generally accepted at the time of the forensic analysis that an ordinary forensic professional or entity would have exercised, and the negligent act or omission substantially affected the integrity of the results of a forensic analysis. An act or omission was negligent if the actor should have been but was not aware of an accepted standard of practice required for a forensic analysis." (TFSC Policies & Procedures at 1.2.)

At its July meeting, the Commission voted unanimously that the analyst's actions in this case constituted "professional misconduct" as defined in the Commission's policies and procedures. This conclusion was based on the following analysis: (1) by reporting negative results on untested evidence, the analyst failed to follow the standard of practice generally accepted at the time of the analysis (*See* **Exhibit D** for TCMECL Policies and Procedures and **Exhibit E** for ASCLD-LAB Guiding Principles of Professional Responsibility); (2) the analyst's actions substantially affected the integrity of the results of the forensic analyses because the reports generated misrepresented the forensic analysis conducted by the laboratory; and (3) the reports showed negative results for each individual item of unopened evidence, with the same failure occurring in five separate cases. The repetitive nature of the violations undermines any suggestion that the actions were accidental and not part of a deliberate decision not to take the necessary steps to test all envelopes of evidence.

E. Importance of Communication with Affected Stakeholders

The Commission stresses the importance of crime laboratory communication with affected district attorneys and law enforcement agencies when nonconformances arise such as those described in this report. Because the results in the cases described herein were negative and no defendants were charged, the prosecuting attorneys did not face any disclosure obligations to defense counsel under *Brady v. Maryland* 373 U.S. 83 (1963). However, if the results had been positive, such a disclosure obligation could have applied. District attorneys must have sufficient information to understand the nature and scope of material nonconformances in a crime laboratory so they may evaluate and attend to their prosecutorial obligations properly.

In this case, the TCMECL communicated appropriately with the affected prosecutorial and law enforcement agencies. The Commission encourages the TCMECL to maintain ongoing communication with those agencies, and to perform additional re-testing of potentially affected cases upon request.

IV. CLOSING RECOMMENDATIONS

In closing, the Commission makes the following recommendations:

1. The Commission recommends that TCMECL continue to implement and monitor the effectiveness of all corrective actions outlined in **Exhibit B** to this report.

2. The Commission requests that any materially significant updates regarding the status of the corrective actions and the TCMECL's re-testing of cases (as requested by submitting agencies) be provided to ASCLD-LAB, DPS and the Commission.

3. The Commission does not have the statutory authority to take any enforcement action against the analyst. The analyst was not certified by a national certifying body (certification is not mandatory for serologists at this time) and was not a member of the American Academy of Forensic Sciences, thereby limiting the scope of possible disciplinary action. However, due to the significant nature of the deviations described herein, the Commission recommends that TCMECL include a copy of this report in the analyst's permanent personnel file.

EXHIBIT A

TEXAS FORENSIC SCIENCE COMMISSION
-LAB DISCLOSURE FORM-

Please complete this form and return to:

Texas Forensic Science Commission
1700 North Congress Avenue, Suite 445
Austin, Texas 78701
Phone: 1(888) 296-4232
Fax: 1(888) 305-2432

The Texas Forensic Science Commission ("FSC") investigates complaints that allege professional negligence or misconduct by a laboratory, facility or entity that has been accredited by the Director of the Texas Department of Public Safety that would substantially affect the integrity of the results of a forensic analysis. The Commission is also required to develop and implement a reporting system through which accredited laboratories, facilities, or entities report professional negligence or misconduct.

Please keep in mind that the FSC investigates matters subject to its statutory authority. The term "forensic analysis" includes any medical, chemical, toxicological, ballistic, or other examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action. The term does not include latent fingerprint examinations, a breath test specimen or the portion of an autopsy conducted by a medical examiner or licensed physician and any allegation involving these forensic fields is expressly excluded from the FSC's statutory authority to investigate.

The FSC will examine the details of your disclosure to determine what level of review to perform, if any. All disclosures are taken seriously. Because of the complex nature and number of complaints and disclosures received by the FSC, we cannot give you any specific date by which that review may be completed.

All information provided to the Commission is subject to the Texas Public Information Act ("PIA") (Texas Government Code Chapter 552). **If your disclosure involves a pending criminal matter(s), please be sure to indicate that on the form below because certain PIA exceptions may apply.**

(e.g burglary, murder, etc.)

*The county where case was investigated, prosecuted or filed:

*The court:

*The outcome of case:

*Names of attorneys in case on both sides (if known):

3. WITNESSES

Provide the following about any person with factual knowledge or expertise regarding the facts of the disclosure. Attach separate sheet(s), if necessary.

First witness (if any): Constance Patton

Name: Tarrant County medical Examiner's Crime Laboratory

Address: 200 Feliks Gwozdz Place

Daytime phone: (817) 920-5700 ext. 8376 Evening phone:

Fax : Email Address: clpatton@tarrantcounty.com

Second witness (if any): Jennifer Valentine

Name: Tarrant County medical Examiner's Crime Laboratory

Address: 200 Feliks Gwozdz Place

Daytime phone: (817) 920-5700 ext 8370 Evening phone:

Fax : Email Address: javalentine@tarrantcounty.com

Third witness (if any): Susan Howe

Name: Tarrant County medical Examiner's Crime Laboratory

Address: 200 Feliks Gwozdz Place

Daytime phone: (817) 920-5700 ext 8370 Evening phone:

Fax : Email Address: srhowe@tarrantcounty.com

5. EXHIBITS AND ATTACHMENT(S)

Whenever possible, disclosures should be accompanied by readable copies (NO ORIGINALS) of any laboratory reports, relevant witness testimony, affidavits of experts about the forensic analysis, or other documents related to your complaint. Please list and attach any documents that might assist the Commission in evaluating the disclosure.

Documents provided will NOT be returned.

List of attachments:

No attachments are included

6. YOUR SIGNATURE AND VERIFICATION

You must sign below:
By signing below, I certify that the statements made by me in this disclosure are true. I also certify that any documents or exhibits attached are true and correct copies, to the best of my knowledge.

Signature: 

Date signed: 04/02/12

EXHIBIT B

TARRANT COUNTY MEDICAL EXAMINER'S DISTRICT
OFFICE OF THE CHIEF MEDICAL EXAMINER
CRIMINALISTICS LABORATORY

March 2012 Forensic Biology Corrective Action

Discovery of the Deviation

On March 14, 2012, a Senior Forensic Biologist retrieved retained sexual assault evidence from Biology Evidence storage for further evaluation. When the Senior Biologist retrieved the items, she noted that the seals on two items had not been broken, although a Forensic Biologist in the lab had reported negative acid phosphatase screening results on those samples. That report was initially issued May 11, 2011.

Initial Investigation

An initial investigation was undertaken to determine the root cause of the deviation, and to determine the significance of the nonconforming work. After consultation with the DNA Technical Leader, a decision was made to suspend the Forensic Biologist from casework, effective March 15, 2012 pending results of the initial investigation. On this same date, both the Tarrant County District Attorney's office and the Texas Forensic Science Commission were notified of the nonconformance and investigation.

The initial investigation began with discussions with the Forensic Biologist, who could not recall the specific case in which the nonconformity was discovered, and could not identify anything in the normal process that would routinely cause such nonconformity to occur.

A re-examination was initiated for all of this analyst's casework spanning the three months prior to and the three months immediately after the date of the initial deviation. Evidence was retained and available for retest on approximately one hundred cases in which reports were issued during this time frame (2/11/11 through 8/26/11). The DNA Technical Leader retested this initial group of cases and completed that testing on 3/17/12 and 3/18/12, encompassing the retesting of over 500 individual items.

During this course of the retest examinations, an additional case was identified in which the seal on one item of evidence had not been broken, although the Forensic Biologist reported negative acid phosphatase screening results on that sample. The report on that case was initially issued by the Forensic Biologist on May 5, 2011.

The retest of the approximately one hundred cases, and over five hundred items of evidence, revealed results concordant with initial screening. All evidentiary items for which seals had been broken had been sampled appropriately for testing.

case, and that the examinations were therefore repeated and the results attached as a supplemental report.

- Notifications to stakeholders:
  - Tarrant County District Attorney's office: Chief Felony Prosecutor notified on 3/15/12 with additional discussions on 3/23/12; details were provided on the two out of the five cases that were Tarrant County cases
  - Johnson County District Attorney's office: Johnson County District Attorney notified on 4/3/12 and provided details on the three out of the five cases that were Johnson County cases
  - ASCLD/LAB Executive Director notified on 3/28/12. ASCLD/LAB was given details on the nature of the nonconformance. A formal report was issued to ASCLD/LAB concerning the Corrective Action on 4/10/12 by the Quality Manager.
  - Texas Department of Public Safety Quality Assurance Manager notified on 3/22/12 with a follow up on investigation status on 3/28/12. This individual also provided suggestions and guidance on the investigation and corrective action. A formal report was issued to DPS concerning the Corrective action on 4/10/12 by the Quality Manager.
  - Texas Forensic Science Commission: notified 3/15/12 and subsequent email of self-disclosure form on 4/2/12. The Crime Laboratory Director and DNA Technical Leader appeared before the Complaint Screening Committee on April 12, 2012 and attended the Forensic Science Commission meeting on April 13, 2012.
  - Disclosure to five affected agencies made via the written memo attached to amended reports and outlined above; reports mailed 4/4/12
  - Notification to the agencies for which serology casework was completed by the analyst in question in 2011, but in which evidence was not available for re-examination. Notifications have been sent with an indication that should the investigation of a case warrant, evidence may be submitted to TCME for re-examination.
- A monthly, random evidence review will be initiated by Quality Manager in all sections of the laboratory. Documentation will be maintained by the Quality Manager. The initial review will be performed as part of the internal audit the week of 5/21/12 and then will be performed on a monthly basis. The evidence review will monitor the following items:
  - Ensure that evidence is labeled and sealed properly
  - Ensure that the report accurately reflects the evidence worked in a case
- Monitoring of any new Forensic Biologist to include independent verification of screening. The new Biologist began employment on 5/21/12; once authorized for casework, her screening results will be verified in a percentage of case.
- A formal request has been made in the Crime Laboratory FY2013 budget for a full-time Quality Manager. Although the Crime Laboratory has long had an individual assigned quality management responsibilities, this individual has traditionally held a dual role as full-time laboratory analyst as well. The time that they can devote to quality system responsibilities is therefore limited, and they are not independent of laboratory operations. Although the Quality Manager has acted objectively and appropriately in the investigation of this nonconformance, a quality system that operates in this fashion is not optimal in terms of effectiveness, perceived influence, or objectivity.

EXHIBIT C

Marc A. Krouse, M.D.
Chief Deputy Medical Examiner

Gary L. Sisler, D.O.
Deputy Medical Examiner

Lloyd White, M.D., Ph.D.
Deputy Medical Examiner

Susan J. Roe, M.D.
Deputy Medical Examiner

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Lynn Robitaille
Texas Forensic Science Commission
1700 North Congress Avenue, Suite 445
Austin, Texas 78701

May 22, 2012

Dear Ms. Robitaille:

Attached please find responses to the May 9, 2012 Forensic Science Commission request for more information pertaining to the recent Tarrant County Medical Examiner self-disclosure. The specific FSC requests are outlined below, followed by the TCME response.

(1) Please provide copies of the standard operating procedures related to the nonconformances discovered in this case. Is any authority/discretion given to an examiner to determine which pieces of evidence are tested in a sexual assault kit? If so, please indicate where the s.o.p. allows for that. If not, please provide the section of your s.o.p. showing what the examiner is instructed to test in each kit.

Files are attached containing the relevant sections of the Serology SOP in place at the time of the nonconformance, as well as the relevant sections of the most recent revisions to this manual. The February 2012 revision contains an added section on sample selection and sample reporting, as recently required by ASCLD/LAB.

TCME would emphasize the fact that the examiner in question clearly recognized the appropriate items of evidence on which to report. The issue that is germane to the nonconformance is not one of appropriate sample selection, but one of actual examinations performed on results reported.

A more relevant document may be the ASCLD/LAB "Guiding Principles of Professional Responsibility", which have been adopted by the TCME Criminalistics Laboratory and discussed and reviewed annually with all laboratory staff beginning in 2010. A copy of this document is also attached.

(2) Please describe what training the examiner received from the point at which he was hired until when he was terminated. It would be fine to specify training relevant to the nonconformances discovered in this case. If he received training in a subject that was not relevant to the issues in this case, you don't need to include it.

EXHIBIT D

Conventional Serology Procedures

Tarrant County Medical Examiner's Office

BIOLOGY / DNA LABORATORY

Approved by: Constance Patton

Constance Patton
DNA Technical Leader

Approved by: Susan Howe

Susan Howe, Ph.D., DABFT
Crime Laboratory Director

Effective Date: February 1, 2012

THRU

_____

"Christmas Tree" Stain for the Identification of Spermatozoa

By using a two step staining process, such as on a vaginal, oral or anal smear obtained from a sexual assault kit, one can observe sperm heads as well as intact spermatozoa under a microscope.

REAGENTS:

1. NUCLEAR FAST RED STAIN: Dissolve 5.0g aluminum sulfate in 200ml of hot dH2O and add 0.1g NFR. Stir, cool and filter. Solution is stable at room temp. for many months. Expiration date is one (1) year from date of preparation.

2. PICROINDIGOCARMINE STAIN: Add 0.33g Indigo Carmine to 100ml saturated solution of picric acid. Filter. Solution is stable at room temp. for many months. Expiration date is one (1) year from date of preparation.

PROCEDURE:

1. FIX cells to microscope slide. (Slides are usually obtained from sexual assault kits).

2. Immerse slide in NFR stain and incubate 15-20min.

3. Wash slide with water.

4. Immerse slide in Picroindigocarmine stain and rotate by hand approx. 15 sec.

5. Wash slide with water.

6. Dry.

7. Scan slide by microscope. Confirmation of intact sperm*atozoa or sperm heads can be made at* setting 100X.

DISCUSSION:

Nuclear material is stained red by the NFR dye. Sperm heads are usually well differentiated with the acrosome staining significantly less densely than the distal region of the head. Epithelial membranes are stained green by the PIC. Epithelial cells appear purple. Yeast cells also stain red, however, the stain is uniform throughout the cell and extends into polyp-like structures which are occasionally observed with yeast cells.

Changes Feb. 2012

QUALITY CONTROL:

In this test procedure, 4 drops of extract are added to the sample well (S), and allowed to soak in. If PSA is present in concentration of greater than 4ng/ml in the sample specimen, it will react with the conjugate dye which then binds to the captured antibody immobilized on the membrane to generate a pink or purple line in the test area (T). A pink or purple line in the control area (C) would also be generated irrespective of the presence of PSA in the specimen and represents the fact that the test is working properly. Thus, presence of two colored lines, one in the test area (T) and other in the control area (C), indicates a positive result, while a line only in the control area (C) would indicate a negative result.

Disposable gloves should be worn while handling kit reagents or specimens. Wash hands after the test.

A fresh transfer pipette for each extract specimen should be used.

DISCUSSION:

Per manufacturer's instructions, hemoglobin (10 g/L), bilirubin (100 mg/L) and lipemic samples, as indicated by triglyceride (5 g/L), do not interfere with the test results. High protein concentration such as prostatic acid phosphatase (1000 ng/ml), albumin (20 g/L), chorionic gonadotropin (900 IU/ml), transferrin (5 g/L) and prolactin (1 mg/L) do not interfere with test results. See package insert for more information on Intra and Inter assay studies performed on the ABAcard PSA test.

The false negative "high dose hook effect" occurs when p30 concentration in the sample is so high that only some of the p30 molecules are bound by mobile antibodies and remaining p30 migrates to the area of immobilized antibodies. The free p30 will then bind to the immobilized antibody and prevent it from binding with the mobile antibody-antigen complex, which is necessary for visualization of the dye.

A positive result may be due to p30 from another male body fluid. Although p30 is normally found only in seminal fluid, p30 *may* also *be* detect*ed* in the blood of men with prostatic carcinoma *and other medical prostate conditions* and in male urine, probably as a result of drainage from the prostatic ducts into the urethra. Vasectomy does not affect the amount of p30 secreted into the seminal fluid.

Additionally, adolescent girls and adult women with hormonal imbalances due to conditions such as PCOS (Polycystic Ovary Syndrome), Cushings or other endocrine related issues may also exhibit p30 activity.

Changes Feb. 2012

2. A bed sheet is submitted with the request of examining for the presence of semen stains. The sheet is reported to have been collected from the victim's bed. The possible presence of a consensual partner(s) is not a factor in the offense. Items tested from a sexual assault kit collected were previously reported negative for the presence of acid phosphatase and / or spermatozoa.

After examination of a bed sheet (item 2), the analyst decides to retain two cuttings (2T1 & 2T2) of four areas / stains tested which were positive for the presence of acid phosphatase (AP). An additional six areas were AP negative. Approximate locations on the sheet of 2T1 & 2T2 and other areas / stains tested are documented in the case file. Additionally, a sperm search which confirms the presence of semen is conducted on cutting 2T1.

Reporting example:

"Acid phosphatase, which is suggestive of semen, was detected from four (or several) areas of the bed sheet (2). Spermatozoa, which confirm the presence of semen, were identified from one selected area (2T1)."

In this example both cuttings 2T1 & 2T2 would be listed in the report as retained in the Biology / DNA laboratory under Disposition of Evidence.

3. A firearm is submitted with information that it was recovered from a trash can near the scene of a shooting. The request is to conduct DNA testing to attempt to determine who could have fired the weapon.

After examination of the firearm (item 3), the analyst decides to retain two swabs (3T1) collectively from both sides of the firearm grip, one swab (3T2) from the trigger and two swabs (3T3) collectively from the slide.

Reporting examples:

"One grip swab (3T1), the trigger swab (3T2) and one slide swab (3T3) were processed for the recovery and quantification of human DNA....."

"The DNA profiles obtained from the grip (3T1) and the slide (3T3), are each a mixture of at least....."

"No DNA profile was obtained from the trigger (3T2) due to an insufficient quantity and/or quality of human DNA".

In this example the remainder of samples 3T1 & 3T3 would be listed in the report as retained in the Biology / DNA laboratory and sample 3T2 would be reported as consumed in analyses under Disposition of Evidence

4. An apparent blood stained shirt recovered from a crime scene is submitted with the request to conduct DNA testing on the stains to determine if they could have originated from the victim and to attempt to determine the wearer of the shirt to compare to a possible suspect(s) and / or CODIS entry.

Sampling

Sampling is a practice of taking a part of a substance, material or product to provide for testing of a representative sample of the whole. Two key factors are (1) the report shall state conclusions about the "whole" based on testing only a portion, and (2) from the start, there shall be a statistically based or reasonable assumption of homogeneity (or made so by the analyst) of the whole.

Practical Applications

1. A portion of liquid blood (sampling unit) is removed at autopsy or from a tube (single unit population) or other container which is applied to a blood card or other substrate, dried and retained for future testing and storage. The blood stain card is considered a representative sample of the "whole" liquid blood sample. As such, results of testing may be reported for the "whole" based on testing from the blood card. There is a general scientifically accepted assumption that an "aliquot" of a liquid is a representative sample of the whole and that the margin of sampling error is minimal.

When a liquid blood sample is received and if necessary, the analyst will document in the case file that a blood stain card (item: 2T) was prepared from a liquid blood sample (item 2). Results of testing obtained from the blood stain shall be clearly identified as such.

"The DNA profile obtained from the evidence (1T) is the same as the DNA profile obtained from John Doe's blood (2T)".

Evidence Receipt and Release

1. Evidence is routinely received *by a Biology / DNA analyst either* from a Tarrant County Medical Examiner evidence custodian or *a secure* hospital lock box. *When a Biology / DNA analyst receives evidence directly from a secure hospital lock box or receives evidence on a new case (i.e. has not yet been assigned a crime lab number) directly from a non-ME individual or via mail, the following will normally apply:*

   a) A hard copy chain of custody is generated
   b) A crime lab number is generated in CRYPT or other Tarrant County ME electronic evidence tracking system (LIMS)
   c) Name(s), offense & agency information, item(s), service request(s), chain of custody information, etc… is entered into CRYPT or other LIMS.

2. After evidence has been examined and samples (if any) retained, the item(s) will be packaged and sealed properly according to the Criminalistics Laboratory Operating Manual, Section 2 – Handling, *Packaging* and Preservation of Evidence. Evidence will normally be released back to an evidence custodian for ultimate release back to the submitting agency for long term storage.

3. Empty outer packaging / swab boxes from items such as buccal specimens will also be released back to the evidence custodian. Blood tubes will be released back to the evidence custodian after making a *blood card* stain *(FTA or other) if necessary,* for retention in the laboratory. Due to the potential biohazard, blood tubes from Sexual Assault Evidence Collection kits *may* be discarded.

4. All transfers will be accompanied by a chain of custody transmittal documenting *items transferred,* signatures, dates and time of transfer. *Transfers, when applicable, will also be recorded in CRYPT or other Tarrant County ME electronic evidence tracking system (LIMS).*

5. Copies (or originals) of all chain of custody transmittals will be retained in the case file.

Conventional Serology Procedures

Tarrant County Medical Examiner's Office

BIOLOGY LABORATORY

Reviewed by: Constance Patton

Technical Leader

Carolyn Van Winkle

Crime Laboratory Quality Assurance Manager

Approved by:

Crime Laboratory Director

Effective Date: December 2008

THRU

JAN 31, 2012

"CHRISTMAS TREE" STAIN FOR THE IDENTIFICATION OF SPERMATOZOA

By using a two step staining process, such as on a vaginal, oral or anal smear obtained from a sexual assault kit, one can observe sperm heads as well as intact spermatozoa under a microscope.

REAGENTS:

1. NUCLEAR FAST RED STAIN: Dissolve 5.0g aluminum sulfate in 200ml of hot dH2O and add 0.1g NFR. Stir, cool and filter. Solution is stable at room temp. for many months. Expiration date is one (1) year from date of preparation.

2. PICROINDIGOCARMINE STAIN: Add 0.33g Indigo Carmine to 100ml saturated solution of picric acid. Filter. Solution is stable at room temp. for many months. Expiration date is one (1) year from date of preparation.

PROCEDURE:

1. FIX cells to microscope slide. (Slides are usually obtained from sexual assault kits).

2. Immerse slide in NFR stain and incubate 15-20min.

3. Wash slide with water.

4. Immerse slide in Picroindigocarmine stain and rotate by hand approx. 15 sec.

5. Wash slide with water.

6. Dry.

7. Scan slide by microscope. Confirmation of intact sperm at setting 100.

DISCUSSION:

Nuclear material is stained red by the NFR dye. Sperm heads are usually well differentiated with the acrosome staining significantly less densely than the distal region of the head. Epithelial membranes are stained green by the PIC. Epithelial cells appear purple. Yeast cells also stain red, however, the stain is uniform throughout the cell and extends into polyp-like structures which are occasionally observed with yeast cells.

6. Read results at approx. 10 minutes. A positive result is indicated by two pink or purple lines, one each in the test area (T) and in the control area (C). This indicates the P30 level is at or above 4ng/ml. If there is only one pink or purple line (in the control area "C"), the test result is negative. Record the results on the data or notes sheet kept in each case file as +, (+), ⊕, pos or =, (-), ⊖, Ø, neg. A +, (+), ⊕ or pos will indicate a positive result and a =, (-), ⊖, Ø or neg will indicate a negative result. If there is no pink or purple visible in the control area, the test is inconclusive. Repeat the test and re-examine the test procedure carefully.

7. Either photocopy or photograph the ABA cards using type 57 film. Settings may vary, but normally F-stop 22 and an exposure setting of 15 works well. Label photocopies or photographs with date, lab number and initials and place in case folder as a permanent record. The ABA cards can then be disposed of.

QUALITY CONTROL:

In this test procedure, 4 drops of extract are added to the sample well (S), and allowed to soak in. If PSA is present in concentration of greater than 4ng/ml in the sample specimen, it will react with the conjugate dye which then binds to the captured antibody immobilized on the membrane to generate a pink or purple line in the test area (T). A pink or purple line in the control area (C) would also be generated irrespective of the presence of PSA in the specimen and represents the fact that the test is working properly. Thus, presence of two colored lines, one in the test area (T) and other in the control area (C), indicates a positive result, while a line only in the control area (C) would indicate a negative result.

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DISCUSSION:

Per manufacturer's instructions, hemoglobin (10 g/L), bilirubin (100 mg/L) and lipemic samples, as indicated by triglyceride (5 g/L), do not interfere with the test results. High protein concentration such as prostatic acid phosphatase (1000 ng/ml), albumin (20 g/L), chorionic gonadotropin (900 IU/ml), transferrin (5 g/L) and prolactin (1 mg/L) do not interfere with test results. See package insert for more information on Intra and Inter assay studies performed on the ABAcard PSA test.

Evidence Receipt & Release

1. Evidence is routinely received into the Biology / DNA section from a Tarrant County Medical Examiner evidence custodian or may be received directly from Hospital Lock Box.

2. After evidence has been examined and samples (if any) retained the item(s) will be packaged and sealed properly according to the Criminalistics Laboratory Operating Manual, Section 2 - Handling and Preservation of Evidence. Evidence will normally be released back to an evidence custodian for ultimate release back to the submitting agency for long term storage.

3. Empty outer packaging / swab boxes from items such as buccal specimens will also be released back to the evidence custodian. Blood tubes will be released back to the evidence custodian after making a FTA stain for retention in the laboratory. Due to the potential biohazard, blood tubes from Sexual Assault Evidence Collection kits will be discarded.

4. All transfers will be accompanied by a chain of custody transmittal documenting signatures, dates and time of transfer.

5. Copies (or originals) of all chain of custody transmittals will be retained in the case file.

EXHIBIT E

ASCLD/LAB-*International*

Supplemental Requirements for the Accreditation of Forensic Science Testing Laboratories

2011 Edition

Appendix B – ASCLD/LAB Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Scientists

ASCLD/LAB-*International* is a program of the
American Society of Crime Laboratory Directors / Laboratory Accreditation Board
ASCLD/LAB

2. Conduct full and fair examinations. Conclusions are based on the evidence and reference material relevant to the evidence, not on extraneous information, political pressure, or other outside influences.

3. Are aware of their limitations and only render conclusions that are within their area of expertise and about matters which they have given formal consideration.

4. Honestly communicate with all parties (the investigator, prosecutor, defense, and other expert witnesses) about all information relating to their analyses, when communications are permitted by law and agency practice.

5. Report to the appropriate legal or administrative authorities unethical, illegal, or scientifically questionable conduct of other laboratory employees or managers. Laboratory management will take appropriate action if there is potential for, or there has been, a miscarriage of justice due to circumstances that have come to light, incompetent practice or malpractice.

6. Report conflicts between their ethical/professional responsibilities and applicable agency policy, law, regulation, or other legal authority, and attempt to resolve them.

7. Do not accept or participate in any case on a contingency fee basis or in which they have any other personal or financial conflict of interest or an appearance of such a conflict.

Competency and Proficiency

The ethical and professionally responsible forensic scientist and laboratory manager . . .

8. Are committed to career-long learning in the forensic disciplines which they practice and stay abreast of new equipment and techniques while guarding against the misuse of methods that have not been validated. Conclusions and opinions are based on generally accepted tests and procedures.

9. Are properly trained and determined to be competent through testing prior to undertaking the examination of the evidence.

10. Honestly, fairly and objectively administer and complete regularly scheduled:

    - relevant proficiency tests;
    - comprehensive technical reviews of examiners' work;
    - verifications of conclusions.

11. Give utmost care to the treatment of any samples or items of potential evidentiary value to avoid tampering, adulteration, loss or unnecessary consumption.

12. Use appropriate controls and standards when conducting examinations and analyses.

g. Lucas, D. M., "The Ethical Responsibilities of the Forensic Scientist: Exploring the Limits," *Journal of Forensic Sciences*. Vol. 34, No. 3, May. 1989, pp. 719-729.

h. Peterson, J. L., Murdock, J. E., "Forensic Science Ethics: Developing an Integrated System of Support and Enforcement," *Journal of Forensic Sciences*. Vol. 34, No. 3, May 1989, pp. 749-762.

i. Saks, M. J., "Prevalence and Impact of Ethical Problems in Forensic Science," *Journal of Forensic Sciences*. Vol. 34, No. 3, May 1989, pp. 772-793.

j. Starrs, J. E., "The Ethical Obligations of the Forensic Scientist in the Criminal Justice System," *Journal of Association of Official Analytical Chemists*. Vol. 54, 1971, pp. 906-914.

iii The draft of this document [Appendix B] was distributed to thirty (30) forensic science organizations and several legal commentators for comment. The comments received were considered and many suggestions incorporated into the final version.