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December 17, 2008

Superintendent Terrence Sheridan  
Maryland State Police Headquarters  
1201 Reisterstown Road  
Pikesville, Maryland 21208

BY EMAIL and OVERNIGHT DELIVERY

Re: Allegations of Serious Negligence or Misconduct in the Baltimore Police Department Crime Laboratory and the Paul Coverdell Forensic Science Improvement Grant Program

Dear Colonel Sheridan:

I allege that serious negligence or misconduct substantially affecting the integrity of forensic results has occurred at the Baltimore Police Department Crime Laboratory (“BPD-CL”). Recently, the BPD-CL revealed that a lab employee working in the DNA lab contaminated evidence in approximately 12 open cases.<sup>1</sup> This disclosure suggests that the BPD-CL may have a wide-ranging problem with laboratory contamination, and that **it committed serious negligence or misconduct by failing to operate a laboratory with safeguards and quality controls to prevent contamination of DNA evidence.**

**If the allegations are true, they substantially affect the integrity of forensic results by leaving unidentified the DNA of lab analysts who handled crime scene evidence. This failure erroneously suggested that there were additional perpetrators of specific crimes who had not been identified, thus creating significant potential to:**

- a. Lead criminal investigators away from real perpetrators;**
- b. Weaken criminal prosecutions by suggesting that another, unidentified person’s DNA was found on probative crime scene evidence; and/or**
- c. Cause investigators and/or police to discount the crime scene DNA evidence and suspect an innocent individual had committed the crime.**

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<sup>1</sup> See Bykowicz, Julie and Fenton, Justin. “City Crime Lab Director Fired.” *Baltimore Sun*. 21 Aug 2008.

Under the Paul Coverdell Forensic Science Improvement Grant (“Coverdell”) program, the Maryland State Police (“MSP”) has been designated to investigate allegations of serious negligence or misconduct at the BPD-CL, a laboratory receiving grant funding under the Coverdell program. As such, the MSP is required to investigate this allegation.

### **I. DNA Contamination Discovered – and Its Implications**

The Baltimore Police Department revealed in August 2008, that the DNA of its own employees had contaminated about a dozen samples of DNA processed at its lab and it had failed to implement basic safeguards that would have limited the contamination’s effect. The discovery of the unchecked contamination raises concerns about DNA handling in the years of cases since the BPD-CL began analyzing DNA samples in 2001.<sup>2</sup>

As a result of this failure to identify contamination of DNA evidence, the public has reason to question the integrity of evidence handled by the BPD-CL. These concerns have been clearly and publicly expressed by forensic experts. “If the quality control practices were so deficient to allow their own DNA in, they’ve also got problems that would allow cross-contamination involving other suspects,” said Janine Arvizu, a Certified Quality Auditor who had audited the lab in 2005.<sup>3</sup> “They absolutely have the potential to cross-contaminate and wrongfully convict someone.”<sup>4</sup> San Antonio, Texas, forensic expert Dean Wideman echoed that concern, noting that such significant contamination reflects on the way the lab processes samples in general.<sup>5</sup> Criminal defense lawyers have also raised the same concerns.<sup>6</sup>

In short, the public has reason to wonder about:

- the extent of the threat to justice presented by the discovery of the contamination,
- whether the contamination failure is representative of other policy, protocol and quality control shortcomings in the lab; and
- the details of the remedial action that will be taken to ensure justice in light of the problems identified.

A properly conducted independent and external investigation, as required under the Coverdell program, can provide the public with confidence in the answers to those questions and others.

### **II. History of problems at the BPD-CL**

The current troubles at the BPD-CL follow on the heels of the lab’s ongoing struggles to control and isolate contamination in another forensic discipline: gunshot residue analysis. In 2001 the

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<sup>2</sup> Bykowicz, Julie and Fenton, Justin. “DNA Issues Are Likely to Arise in Future Trials.” *Baltimore Sun*. 22 Aug 2008.

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> Bykowicz, Julie and Fenton, Justin. “City Crime Lab Director Fired.” *Baltimore Sun*. 21 Aug 2008.

<sup>6</sup> Patrick Kent, chief of the forensics division at the state public defender’s office, and the Baltimore Public Defender, Elizabeth Julian, have been among those raising questions about the broader implications of the contamination problem. *See* Bykowicz, Julie and Fenton, Justin. “City Crime Lab Director Fired.” *Baltimore Sun*. 21 Aug 2008.

BPD discovered gunshot residue contamination throughout its lab.<sup>7</sup> The contamination was attributed to a combination of sub-par practices: among them, the BPD-CL did not bag suspects' hands upon arrest in order to prevent contamination by rogue gunshot residue particles, nor did it conduct testing in a room specially designated for gunshot residue collection.<sup>8</sup>

The controversy made clear that GSR testing results from the BPD-CL could not be trusted. For instance, although the BPD-CL routinely had reported that gunshot residue found on suspects' hands "most probably" arose from being in close proximity to a firing gun, suspects' hands could have been contaminated merely by ambient GSR in the lab.<sup>9</sup> A 2003 Baltimore police audit revealed GSR on the handcuffs, gun belt and holster of the officer assigned to the laboratory's room specifically designated for GSR analysis.<sup>10</sup>

Given this history, the BPD-CL cannot be expected to properly remedy the problems identified. By contrast, the independent, external nature of a Coverdell Program investigation provides the public – which necessarily includes potential jurors – with confidence that the investigation will be thorough and include the necessary remedial action to rectify the situation.

### **III. Safeguards Could Have Isolated Contamination and Protected Case Work**

Across the country contamination databases are commonplace. It appears the BPD-CL's contamination of samples with employees' DNA could have been earlier revealed and isolated if the BPD-CL had a database of its employees' DNA profiles – against which to compare profiles from case work. The American Society of Crime Laboratory Directors-Laboratory Accreditation Board, which accredited the BPD-CL in December 2006, states that maintaining an employee DNA database is a basic and assumed precaution.<sup>11</sup> Ralph Keaton, director of ASCLD-LAB, emphasized that the deficiency of the BPD-CL's quality-control practices was "all but unheard of" and "a uniformly standard practice of laboratories doing DNA testing."<sup>12</sup> Indeed, the laboratory of the Maryland State Police, as well as the lab of the nearby Baltimore County Police, always test samples against databases of lab employees' DNA.<sup>13</sup>

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<sup>7</sup> See Geier, Peter. "Defendants Allege that Contamination is a Chronic Problem in Baltimore Police Dept." *Daily Record*. 3 Sept 2004.

<sup>8</sup> See *Id.* As well, in 2005, a Maryland judge dismissed evidence provided by the BPD-CL because the lab presented as evidence two-element particles despite scientific consensus that only three-element particles can conclusively be considered gunshot residue. See Bykowicz, Julie. "Convictions Tied to Controversial Gun-Residue Test." *Baltimore Sun*. 27 March 2005. The FBI, the U.S. Army Crime Laboratory, and the Forensic Science Service in the United Kingdom – all internationally known and recognized forensic laboratories – have called for stringent particle standards in their GSR analyses. McGuire, Dennis L., M.S. "The Controversy Concerning Gunshot Residues Examinations." *Forensic Magazine*. Aug/Sept 2008.

<sup>9</sup> Mejia, Robin. "Why We Cannot Rely on Firearm Forensics." *NewScientist.com News Service*. 23 Nov 2005 (available at <http://technology.newscientist.com/channel/tech/mg18825274.300-why-we-cannot-rely-on-firearm-forensics.html> -- last viewed October 19, 2008).

<sup>10</sup> Bykowicz, Julie. "Dubious Science: Carelessness in Crime Lab Procedures Raises Serious Questions about Evidence." *Baltimore Sun*. 7 Sept. 2008.

<sup>11</sup> Bykowicz, Julie and Fenton, Justin. "City Crime Lab Director Fired." *Baltimore Sun*. 21 Aug 2008.

<sup>12</sup> *Id.*

<sup>13</sup> *Id.*

The BPD-CL itself acknowledged the importance of such DNA contamination safeguards by collecting DNA samples of its lab employees for such cataloging.<sup>14</sup> Crucially, however, the lab never converted these samples into profiles for a database<sup>15</sup> – begging the question where else it may have failed to follow through on contamination safeguards that assure the integrity of its analyses and prevent wrongful convictions.

#### V. The Required Statutory Response to Allegations

The allegations mandate specific action under the Paul Coverdell Forensic Science Improvement Grant Program, from which the BPD-CL receives funds. As a precondition to receive funding, each applicant was required to furnish:

A certification that a government entity exists and an appropriate process is in place to conduct independent external investigations into allegations of serious negligence or misconduct substantially affecting the integrity of the forensic results committed by employees or contractors of any forensic laboratory system, medical examiner's office, coroner's office, law enforcement storage facility, or medical facility in the State that will receive a portion of the grant amount.<sup>16</sup>

Congress initiated the grant program in 2000 which, since 2002, has provided states with a fertile source for forensic laboratory funding. The money is intended “to improve the quality and timeliness of forensic science and medical examiner services, and to eliminate backlogs in the analysis of forensic evidence, including controlled substances, firearm examination, forensic pathology, latent prints, questioned documents, toxicology and trace evidence.”<sup>17</sup>

The grants play a central role in virtually all states' forensic laboratory funding.<sup>18</sup> The Department of Justice's National Institute of Justice (NIJ), a division of the DOJ's Office of Justice Programs (OJP), administers the Coverdell grants. The NIJ disbursed \$180,268<sup>19</sup> in 2005, \$191,009<sup>20</sup> in 2006, and \$212,771 in 2007<sup>21</sup> to the Maryland Governor's Office of Crime Control and Prevention (GOCCP). That office then disbursed a portion of that money to the BPD-CL in each of those years. The BPD-CL received an additional \$93,200<sup>22</sup> directly from the NIJ in 2006.

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<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> 42 U.S.C. § 3797k (4) (2004).

<sup>17</sup> A description of the funding stream is available on the National Institute of Justice's Web site, at <http://www.ncjrs.gov/pdffiles1/nij/sl000745.pdf> (last visited Dec. 16, 2008).

<sup>18</sup> See U.S. Department of Justice, Office of the Inspector General, Evaluation and Inspections Division, “Review of the Office of Justice Programs' Forensic Science Improvement Grant Program,” (December 2005), available at <http://www.usdoj.gov/oig/reports/OJP/e0602/final.pdf> (last visited Dec. 16, 2008).

<sup>19</sup> See [http://www.ojp.usdoj.gov/nij/awards/2005\\_topic.htm#paul\\_coverdell](http://www.ojp.usdoj.gov/nij/awards/2005_topic.htm#paul_coverdell) (last visited Dec. 16, 2008).

<sup>20</sup> See [http://www.ojp.usdoj.gov/nij/awards/2006\\_topic.htm#paul-coverdell](http://www.ojp.usdoj.gov/nij/awards/2006_topic.htm#paul-coverdell) (last visited Dec. 16, 2008).

<sup>21</sup> See <http://www.ojp.usdoj.gov/nij/topics/forensics/nfsia/2007-funding-table.htm> (last visited Dec. 16, 2008).

<sup>22</sup> See [http://www.ojp.usdoj.gov/nij/awards/2006\\_topic.htm#paul-coverdell](http://www.ojp.usdoj.gov/nij/awards/2006_topic.htm#paul-coverdell) (last visited Dec. 16, 2008).

Laboratories within states are the bodies actually seeking the funds, but often State Administering Agencies (like the GOCCP) will apply on a state's behalf and then disburse portions of the grant to the labs. In keeping with federal statute (42 U.S.C. § 3797 l) the NIJ will provide some supplemental awards directly to laboratories, on a competitive basis.

According to GOCCP's FY 2007 Coverdell application, the BPD-CL has named the Maryland State Police to provide independent and external oversight in keeping with the Coverdell requirement.<sup>23</sup> As such, the MSP is responsible for conducting investigations under the parameters of the Coverdell certification requirement.

## **VI. Scope of the Investigations**

The federal government has long recognized its duty to the public to identify and remedy the causes of catastrophic errors. For example, when an airplane crashes or a train derails, the National Transportation Safety Board (NTSB) immediately conducts an investigation into the causes of the incident and makes recommendations. Such investigations enable the government to figure out what went wrong and, even more importantly, what can be done to correct the problem and prevent it from happening again. Congress realized the benefit of the approach, and with its passage of the Justice for All Act of 2004 (JFAA) and the attendant changes to the Coverdell granting process, it brought this model to the nation's forensic entities. As the office for fielding Coverdell Program allegations connected with the BPD-CL, the State Police is responsible for investigating these allegations for the benefit of Baltimore and the criminal justice system at large.

The process the MSP utilizes when it conducts this investigation is a crucial consideration, as well. The U.S. Government Accountability Office has developed standards for sound audits<sup>24</sup> like the one I am requesting, and the MSP's investigation will have the resonance and impact that Congress intended if it adopts the spirit of the GAO's recommendations. With that context in mind, I would ask the State Police to:

- (1) identify the source of the alleged problems;
- (2) identify whether there was serious negligence or misconduct;
- (3) describe the method used and steps taken to reach the conclusions in parts 1 and 2;
- (4) identify corrective action to be taken;
- (5) where appropriate, conduct retrospective re-examination of other cases which could have been affected by the same problem;
- (6) conduct follow-up evaluation of the implementation of the corrective action, and where appropriate, the results of any retrospective re-examination;
- (7) evaluate the efficacy and completeness of any internal investigation conducted to date;
- (8) determine whether any suggested laboratory protocol change might also benefit other laboratories within its investigatory jurisdiction; and
- (9) present the results of Parts 1-8 in a public report.

Any corrective action must not result exclusively in blame of a particular person for a particular act, but instead should determine the underlying causes of the act via "root cause analysis," the

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<sup>23</sup> See the relevant certification within the 2007 Maryland Coverdell application, attached as Exhibit A, page 80 of 81.

<sup>24</sup> See "Government Auditing Standards: January 2007 Revision," available at <http://www.gao.gov/govaud/d07162g.pdf> (last visited July 6, 2007). See sections 3.01-3.39

purpose of which is to solve problems by correcting or eliminating root causes, as opposed to merely addressing immediately obvious symptoms.<sup>25</sup>

### VII. A Note Concerning a Simultaneous ASCLD-LAB Investigation

Mr. Keaton, the director of ASCLD-LAB, said he was sending ASCLD-LAB inspectors to investigate the BPD-CL's DNA contamination.<sup>26</sup> Although this may be valuable as a matter of ASCLD-LAB accreditation and to the lab itself, this effort is not intended to bolster independence, public confidence or promote transparency as Congress intended when it created the external investigations requirement linked to the Coverdell grant. Nor is a self-directed ASCLD-LAB investigation sufficient to satisfy the statutory terms for an investigation required under Coverdell when a colorable allegation of serious negligence or misconduct has been made.

Although ASCLD-LAB accreditation enforces uniformity and standards in laboratory operations and protocols and thus fosters quality in laboratory analyses, it is not designed to catch every lab shortcoming, nor, more importantly, is it intended to consider the systemic responses that can prevent recurrence of certain shortcomings. Indeed, in comments Mr. Keaton made to the press, Mr. Keaton noted that BPD-CL *was not required* to implement procedures to prevent DNA contamination in order to receive its 2006 accreditation.<sup>27</sup>

ASCLD-LAB is accountable to its clients – the laboratories it accredits – and reports prepared in relation to accreditation are for a specific client laboratory. The reports also are not, as a matter of course, publicly disseminated, nor does ASCLD-LAB typically advise *other* laboratories to employ recommendations gleaned during its examination of a given client lab. Instead, its findings are narrow and particular to the lab it accredits. They are not prepared *per se* to elucidate root causes or, more broadly, ensure public confidence.

By contrast, federal law requires that Coverdell entities are governmental – meaning they are accountable to the public – and they must be independent and external of the labs they might investigate. In a number of states, Coverdell investigations have led to strong and publicly available reports that make clear the importance of an investigation's findings – not just for the lab investigated, but for all stakeholders in the criminal justice system. These reports let the public know that forensic problems are being identified and remedied, and that the quality and accuracy of forensic results is assured. This is critical not only to public confidence in the criminal justice system, but also to juror faith in the evidence upon which determinations of innocence or guilt often rely. A failure to properly investigate will, conversely, undermine such faith.

In New York State, for instance, a Coverdell investigation concerning alleged improprieties at the New York City Police Department forensic laboratory resulted in a wide-ranging public

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<sup>25</sup> This approach is particularly relevant in the instant case. Mr. Edgar Koch, who was the BPD-CL director when DNA contamination was discovered in August, was fired shortly thereafter. Mr. Koch's firing did not isolate and remedy the apparent root causes that prompt this allegation.

<sup>26</sup> Bykowicz, Julie. "Accrediting Agency to Review City Crime Laboratory." *Baltimore Sun*. 27 Aug 2008.

<sup>27</sup> Bykowicz, Julie and Fenton, Justin. "City Crime Lab Director Fired." *Baltimore Sun*. 21 Aug 2008.

report.<sup>28</sup> The New York State Inspector General (IG) found a significant risk that analysts were fabricating results rather than performing tests, and that evidence indicating the occurrence of such “dry labbing” had been downplayed when it first came to light. The NYPD undertook a broad reexamination of cases potentially undermined by shortcomings the IG identified. Likewise, in Washington State, allegations concerning alleged mishaps in the State Police’s laboratory resulted in another public report<sup>29</sup> – this one confirming troubling problems with toxicology work at the lab and discussing systemic remedies. Among its recommendations, the council called for staff expansion at the lab, more routine examination of laboratory practice, and a division of leadership responsibilities.<sup>30</sup>

The NIJ has recognized the limitations of ASCLD-LAB in the Coverdell context. The agency provided applicants for Coverdell funding with guidance to locate entities that might provide statutorily acceptable independent and external oversight, and those that cannot. According to the NIJ, when:

an applicant agency is accredited by an independent accrediting or certifying organization such as CALEA, ASCLD-LAB, NAME, FQS, etc. ... the fact of accreditation or certification by an outside entity on its own does not demonstrate that the agency has a process in place to investigate allegations of serious negligence or misconduct committed by employees or contractors.<sup>31</sup>

The distinction the NIJ drew makes sense: ASCLD-LAB is not a *government* entity, as the statute requires, nor is it designed to conduct the kind of investigation that the Coverdell requirement mandates.

With this context in mind, although it is acceptable for the MSP to review the findings of an ASCLD-LAB investigation as the MSP conducts its own investigation (to the extent ASCLD-LAB makes its investigative findings available to you), the MSP cannot rely *exclusively* on that ASCLD-LAB directed investigation as consonant with satisfaction of the Coverdell requirement. The MSP must conduct its own work, or specifically direct ASCLD-LAB under the MSP’s supervision.

#### **VIII. The Importance of the MSP’s Investigation:**

The external and independent investigation I am now requesting will help Baltimore properly identify and apprehend the guilty actual perpetrators of crimes and protect the innocent by making the lab’s work more accurate and reliable. It also can increase public confidence in the integrity of the lab’s work and ensure that adequate quality control procedures are in place.

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28 See the report of the New York State Inspector General, available at <http://www.ig.state.ny.us/pdfs/Investigation%20of%20Drug%20Test%20Irregularities%20at%20the%20NYPD%20Forensic%20Laboratory%20in%202002.pdf> (last viewed Dec. 16, 2008).

29 The Forensic Investigations Council has not posted the report electronically, but the report otherwise has been widely disseminated and is available elsewhere online, including [www.waducen.com/documents/FICInvestigativeReport04-17-08.pdf](http://www.waducen.com/documents/FICInvestigativeReport04-17-08.pdf) (last visited Dec. 16, 2008).

30 *Id.* at pp. 11-12.

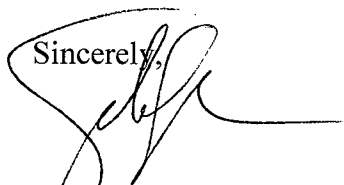
31 See the FY 2008 Request for Funding Proposal Issued by the NIJ, available at <http://www.ncjrs.gov/pdffiles1/nij/sl000839.pdf>, at page 8 of the 28-page PDF (last visited Dec. 16, 2008).

Jurors can have faith that evidence will contribute to the fair disposition of justice, rather than the risk of imprisoning an innocent person while a guilty person goes free.

We recognize the good-faith efforts of the state's forensic community to conduct its work, regularly juggling substantial caseloads while struggling for the funding, equipment and staffing it deserves. Nevertheless, the forensic community must operate with transparency and proper state support in this technically advanced era. Thus, it is our hope that the Coverdell investigation can identify whatever negligence or misconduct, if any, affected the matters herein – and ensure that, via an effective investigation report, the state's forensic community will benefit.

We are thankful that Congress has provided the MSP with the authority to investigate this allegation. We expect that public concern will be alleviated by knowing the MSP is involved in ensuring that Congressional intent is fulfilled for the good of Baltimore and the criminal justice system at large. I ask that the MSP investigate the circumstances described above as promptly as possible and release its resulting findings without undue delay.

Sincerely,



Stephen Saloom, Esq.  
Policy Director