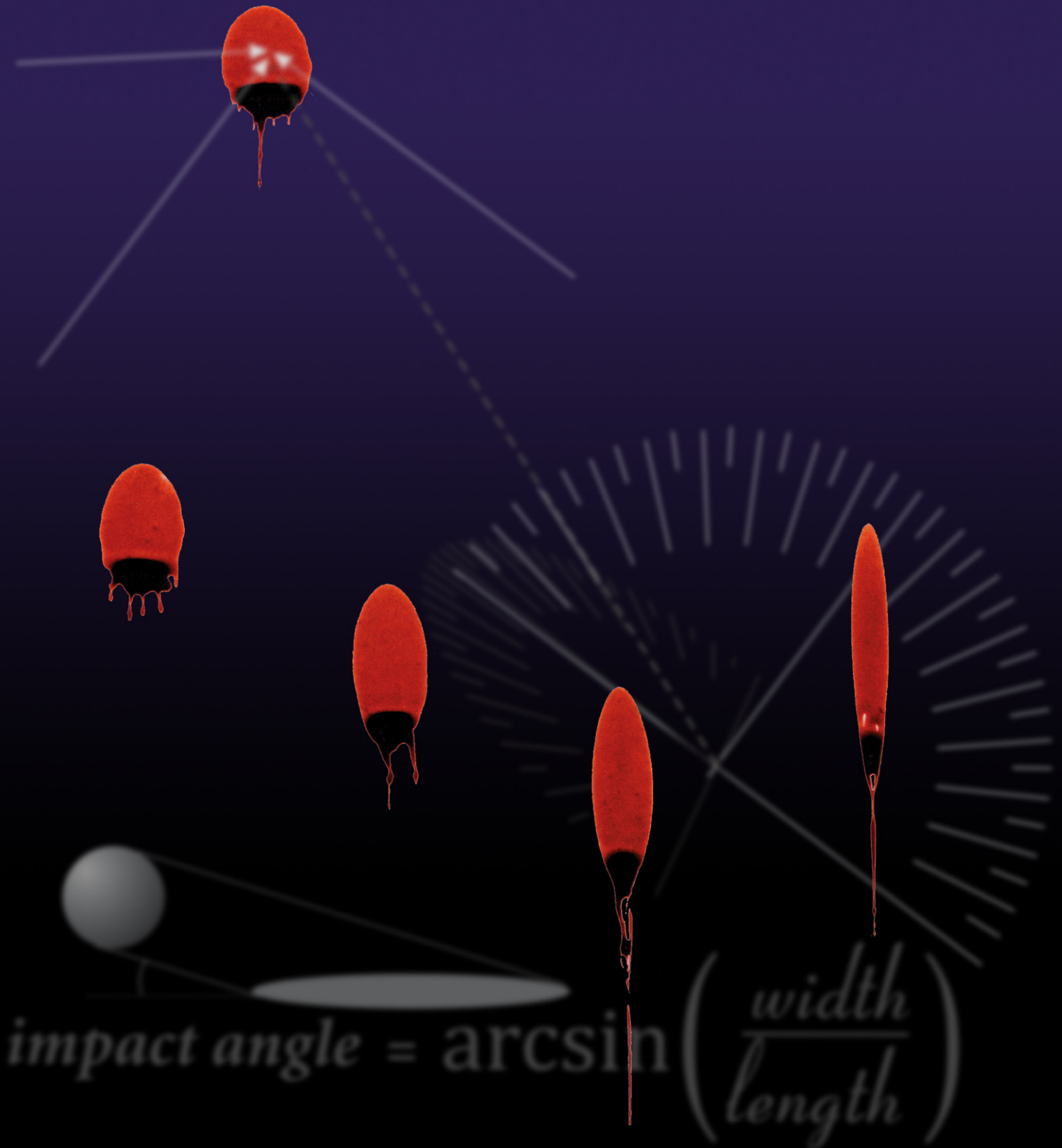


The CACNews

News of the California Association of Criminalists • Second Quarter 2011



The President's Desk

Lather, Rinse, Repeat

Just over two years ago, the National Academy of Sciences (NAS) released their report *"Strengthening Forensic Science in the United States: A Path Forward"*. Several months later, the California Crime Laboratory Review Task Force issued their report, *"An Examination of Forensic Science in California"*. Both reports detailed strengths in the forensic sciences and made recommendations to improve perceived shortcomings and areas of concern. Sadly, due to the current economic climate and a few political reasons, not as much progress has been made to address the recommendations of these reports as some might have liked. Partly because of this, there have been quite a number of *President's Desk* messages that have touched upon these reports and some of the work to address the concerns they raised. If the repeated updates on these issues seem tiresome, I am sorry. But few topics have as great a potential to impact our daily lives as criminalists as the current and future efforts to meet these recommendations.

Following the release of the NAS report, the White House created the Subcommittee on Forensic Science within the National Science Technology Council, Committee on Science. The subcommittee selected a number of individuals, including a few CAC members to be a part of their five Interagency Working Groups: Ethics, Education and Terminology; Accreditation and Certification; Outreach and Communication; Research, Development, Testing and Evaluation; and Standards and Protocols. Their original charter indicates that their work will terminate in September of this year, unless renewed by the Committee on Science. I hope that soon we will have an update of their progress and would not be surprised if the subcommittee is renewed.

The United States Senate is evaluating legislation, proposed by Senate Judiciary Chairman Patrick Leahy, which will create an Office of Forensic Science (OFS) within the Department of Justice and a Forensic Science Board, made up of scientists and stakeholders, to provide recommendations to the OFS Director. This appears to address the NAS recommendation "to create an independent federal entity, the National Institute of Forensic Science (NIFS)". Many of the functions that NAS suggested for NIFS appear to be included in the roles of the various committees of the OFS, which will be headed by the National Institute of Standards and Technology. This legislation likely would have been proposed a year ago, but was delayed due to the confirmation hearings of Supreme Court Justice Elena Kagan taking up most of the Judiciary Committees summer. With the houses of Congress split by the two major parties last November, one can only hope that they can work together to create legislation that meets the goal of NAS to strengthen forensic science, not merely entangle it in additional layers of burdensome bureaucracy.

The NAS report recommended that NIFS "should establish a national code of ethics for all forensic science disciplines". The CAC created an *ad hoc* committee on National Code of Professional Conduct to create a document to be offered as a possible model for such a code. The final draft of this is available on the CAC website. The draft has been submitted to the Subcommittee on Forensic Science, Interagency Working Group on Ethics, Education, and Terminology and the draft will likely be provided to the Office of Forensic Science if it comes to fruition.

The California Crime Laboratory Review Task Force made a number of recommendations on recruitment and retention, education, certification, funding, performance standards and equipment, staffing, equipment and facilities, and accreditation. But these have largely been ignored by the state legislature. To some degree, funding, staffing, and equipment and facilities have had reductions by some actions of the legislature to address state and local budget shortfalls. Current state legislation attempts to address the recommendation for a state-wide oversight body, but this was not one of the areas that the Task Force was originally called to investigate. Last summer, the Task Force decided to discontinue their discussions until sometime later this year, in order to see what progress occurs at the federal level. I would like to see sufficient updates in the status on the efforts of the White House and the U.S. Senate to make this wait worthwhile.

This is my last President's Desk message. I want to thank all of the CAC members who have provided input at various levels to help advance the recommendations of the NAS and the Crime Lab Review Task Force. I am hopeful that incoming president Kevin Andera will have significant progress to report and that the crime labs in California, the criminalists they employ, and the quality of the work we perform will continue to moving on a path forward.

The CAC created an *ad hoc* committee on National Code of Professional Conduct to create a document to be offered as a possible model for such a code. The final draft of this is available on the CAC website.



Adam Dutra
CAC President

A handwritten signature in blue ink, appearing to read "Adam Dutra".



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Submissions should be made in the form of Windows compatible files on CD or by e-mail. Alternatively, text files may be saved as plain ASCII files without formatting codes, e.g. bold, italic, etc. Graphics, sketches, photographs, etc. may also be placed into articles. Please contact the editorial secretary for details.

The deadlines for submissions are: December 1, March 1, June 1 and August 15.

The CACNews

www.cacnews.org



On the cover...

The "golden ratio" of bloodstain pattern analysis.

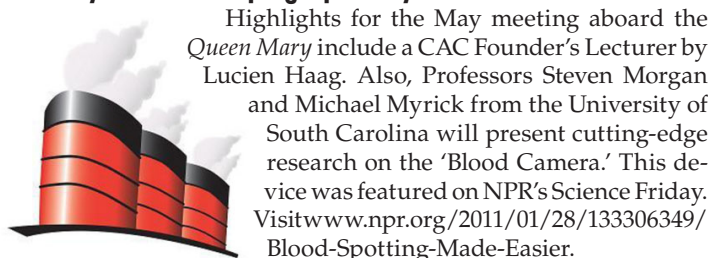
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CAC member Joe Hourigan describes the results of a fire debris analysis from a burned body on an episode of *LA Forensics*, "Where There's Smoke" (truTV).

May Seminar Shaping Up Nicely



Highlights for the May meeting aboard the *Queen Mary* include a CAC Founder's Lecturer by Lucien Haag. Also, Professors Steven Morgan and Michael Myrick from the University of South Carolina will present cutting-edge research on the 'Blood Camera.' This device was featured on NPR's Science Friday. Visit www.npr.org/2011/01/28/133306349/Blood-Spotting-Made-Easier.

Of course no stay on the ship would be complete without the "Ghosts and Legends Tour" aboard the haunted *Queen Mary*! Graduate-level research posters are currently being accepted, so you can display and discuss your thesis or other research with your peers and professionals in the field.

Plus, several intriguing case presentations from the criminalists and attorneys that worked them are planned: May 18, The murder of LA County Police Captain Sparkes; May 19, The murder of Jasmine Fiore and on May 20, we'll hear the story of serial killer Rodney Alcala.

NIJ Forensic McCrone Classes Offered

There are a number of National Institute of Justice Funded Classes at McCrone Research Institute in Chicago, IL.

Registration is not strictly first come, first serve. Your application and personal statement will be carefully evaluated for previous courses and a need for training.

Those that register after March 21 may still apply and will be placed on a waitlist for that course if no spots are available.

August 22-26—Advanced Forensic Microscopy: Paint and Polymers
 August 29-September 2—Advanced Forensic Microscopy: Glass
 September 12-16—Forensic Microscopy
 October 10-14—Advanced Forensic Microscopy: Paint and Polymers
 November 7-11—Sample Preparation and Manipulation for Microanalysis
 November 14-18—Advanced Forensic Microscopy: Fiber
 November 14-18—Forensic Microscopy
 December 5-9 —Forensic Microscopy
 December 12-16—Advanced Forensic Microscopy: Explosives

Waitlists from past courses do not carry over. You will need to apply to the new course if you are interested in taking it.

Prerequisites:

The Forensic Microscopy course serves as a prerequisite for the advanced courses. Students must complete the Forensic Microscopy course or equivalent or submit proof of competency to the director before an application to the advanced courses will be accepted. Sample Preparation and Manipulation has no prerequisite.

For more information, please visit www.mcricri.org

Alma Longhetti Passes

I wanted to notify you all of Alma Longhetti's funeral. Alma Longhetti is the widow of the late CAC / AAFS past president Tony Longhetti.

The funeral for Alma Longhetti was held January 28 at Holy Name of Jesus Parish, Redlands, CA. According to the SBSO Public Affairs release, she passed away on Jan. 16 from complications of a brain aneurysm. Cards and notes can be sent to the family, in care of Terri Long, SBSO-Highland Station, 26985 E. Baseline, Highland, CA 92346.

Michelle Halsing

InterMicro 2011

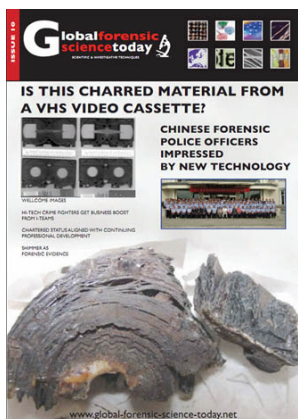
McCrone Research Institute cordially invites you to participate in Inter/Micro 2011, July 11-15. Consider giving a presentation of your research paper in such subjects as photomicrography, criminalistics, explosives, etc. Speakers receive a \$75 registration discount! Deadline for submission is April 15. More info at mcricri.org/home/section/101/inter-micro

Fall Meeting in Sacramento

The Fall CAC meeting will be held at the Doubletree Hotel in Sacramento, CA from October 24-28. Contact person is Cecilia von Beroldingen.

Blackledge Makes the Cover

It will cost you a few pounds to get the latest issue of the online journal, *Global Forensic Science Today* (GFST) but at



long last it is out. First there is the article, "Is this Charred Material from a VHS Video Cassette? (I'm a co-author). It may not be the cover of the Rolling Stone, but at least we made the cover! Congratulations to Tara Fruchtenicht and Teresa Williams!

Then there is the article, "Shimmer as Forensic Evidence", (I had a role as an advisor/mentor to two high school seniors in St. Louis, MO). Congratulations to Sarah Griggs, Josh Hahn, and Dr. Heather

Bonner of Ritenour High School in St. Louis, MO!

Have your credit card handy and go to: www.globalforensicsciencetoday.net/

Bob Blackledge

Code of Conduct Completed

As mentioned in this issue's "President's Desk," A CAC ad hoc committee has completed a code of conduct document please see the CAC website or cac.memberlodge.org/NCPC

Four Decades of CACNews Now Online

An enormous amount of scanning and document OCR has resulted in a real treat: Back-issues of the CACNews from 1971 through the present are now available in the "Archives" section of the cacnews.org website. Hats off to Carolyn Gannett, John Houde and Eric Helsing, who've made these issues fully text-searchable and a useful research tool.

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Lucy B. McCrone, 1923-2011

Lucy B. McCrone, co-founder and matriarch of McCrone Research Institute, died on February 10, 2011, after succumbing to complications from pancreatic cancer. She was 87 years old.



Lucy was the wife of the late Dr. Walter C. McCrone. She was born in 1923 in Buffalo, and received a B.A. in chemistry from Wellesley College in 1945. After graduating, Lucy was hired as an analytical chemist at Arthur D. Little in Cambridge, Mass., where she worked from 1945 to 1957. In her laboratory, she met Dr. McCrone, who was

there on a consulting visit. She fell in love and married him in 1957, and came to Chicago to work as a chemical microscopist for Walter C. McCrone Associates.

In 1960, Lucy and Dr. McCrone founded the McCrone Research Institute (McRI) in Chicago, where she went to work full time after leaving McCrone Associates in 1984. Her passion for the microscope and microscopy education often found her at McRI seven-days a week until a few months before her death. Even after being diagnosed with her illness last summer, she routinely visited the Institute, always remaining involved with the not-for-profit teaching and research organization that she affectionately called home for more than 50 years.

Professional microscopists and students alike recognize Lucy as the co-author (together with Dr. McCrone and John G. Delly) of the Polarized Light Microscopy course manual, which is widely used today and regarded as the "PLM Bible." She also served as associate editor of *The Microscope* journal. Lucy was a skilled chemist and microscopist, who genuinely cared for her co-workers and students, all of whom she considered her family.

The feeling was mutual. Lucy will always be remembered for her witty sense of humor, generosity and a deep love for all living things. She was one of the most gracious and humble human beings I have ever known, and she leaves behind many joyful memories to all who knew her.

At Lucy's request, there was no funeral. In lieu of flowers, please make donations in Mrs. Lucy B. McCrone's name to her Scholarship Fund at the McCrone Research Institute, the Jane Goodall Institute or a charitable organization of your choice. Her wish was for us to continue fulfilling her and Dr. McCrone's dream of advancing the microscope and chemical microscopy.

All of us at McRI, and people in the wider microscopy community who knew Lucy, will mourn the end of an era while celebrating her long, accomplished life. She will be dearly missed.

Gary J. Laughlin
President/Executive Director
McCrone Research Institute
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Oakland Seminar Speaker Responds

Editor,

A colleague forwarded your recent newsletter to me. I noted, at page 7 ["Speaker Gave Wrong Impression," *The CAC News*, 1st Q 2011], a letter from Mignon Dunbar, who was identified as affiliated with the San Francisco Police Department Criminalistics Laboratory. Mignon Dunbar was purporting to respond to a presentation that I was privileged to give to the CAC Seminar in Oakland recently. My presentation had to do with the Implications of Suppressed, Falsified, or Undisclosed Lab Information in Litigation. I would think that CAC wanted an invited speaker to provide accurate information to the group - and to have the opportunity to correct a critique of a speaker's presentation to your group. As it happens, the letter that you published evidenced three things to me. First, I apparently did not do a good job explaining my reasons for discussing information about the San Francisco Police Department Crime Laboratory issues in the context of my presentation. Second, the pertinent part of the presentation was actually based on litigation (which I believe I referenced, though the letter writer may have missed the reference) that took place in the Federal District Court in the Northern District of California. Third, I think the example I gave, which happened to center on the SFPD Crime Lab, was properly used as an illustration of a 'Brady disclosure' problem.

What I wanted to tell your audience is that litigation over the adequacy of disclosures made by the Office of the U.S. Attorney in a federal death penalty case arose in the aftermath of the convictions handed down in 2009 (which did not result in a death sentence). At the time of the CAC seminar in Oakland, the *Brady* litigation was ongoing. The case was *U.S. v. Cyrus*, CR 05-00324 MMC. The issue pertinent to the San Francisco Crime Lab centered around the basis for the federal charges. The accused was alleged to have been part of a racketeering conspiracy involving the possession for sale and distribution of crack cocaine (among other substances) which involved the commission of several murders. The accused was also alleged to have personally possessed some crack cocaine. During the trial, five drug analysts (past and present) from the SFPD Crime Lab testified.

The defense challenged the sufficiency of the documentation employed by the Lab to record drug identification and weighing of drug evidence, and attacked the methodology used both for the drug identification and weighing process. The defense moved for disclosure of material pertinent to these subjects. The SFPD drug analysis SOPs were provided, as were a number of the SFPD's records pertinent to specific tests. The defense moved for discovery prior to trial seeking balance and instrument calibration records; quality assurance reports; analyst proficiency testing records, etc. A number of these documents were not produced either prior to or during trial.

The *Brady* issue that was raised after the convictions centered on the U.S. Attorney's failure to provide the material that the defense alleged was in the Lab's possession. Such allegations, incidentally, were exactly within the heartland of the topic that I had been asked by CAC to address. What I had sought to explain at the seminar was that after the convictions,

The letter writer from the SFPD Crime Lab seemed convinced that my purpose was to provide erroneous information about the crime laboratory. As noted, if I did not make my points clear, that is my problem - and I owe your audience an apology if that is the case.

defense counsel received information of potential irregularities at the Lab (which by then were a matter of news reports). Eventually, the Federal Judge agreed that defense counsel should be provided with the materials requested if they existed - and indeed, in the more than 4200 pages of discovery that defense counsel received after trial and had never seen before, pertinent materials were included. They would have permitted defense counsel to address whether there were: calibration records kept by the SFPD Lab; whether calibration weights (control weights) had been kept by the Lab for all of its balances; and whether some proficiency testing records for specified analysts could not be located. In addition to which, one of the analysts who testified turned out to have a minor misdemeanor conviction, and an administrative finding of conduct unbecoming an officer that the defense had never been provided.

The post-conviction discovery revealed that in the aftermath of the convictions, external auditors reviewed the Lab's narcotics testing procedures, and found problems with the documentation, including issues concerning the maintenance records for balances and other instruments.

Apparently Mignon Dunbar was not aware of the fact that I was one of the defense lawyers in the case - and indeed, the lawyer who not only brought the pre-trial discovery motions, but also cross-examined all five of the SFPD analysts; raised the issues in a post-conviction motion for discovery; and litigated our motion for new trial. The U.S. Attorney and Federal District Judge agreed that we were entitled to the evidence that we received after trial - though the U.S. Attorney took the position that his office had turned over all information provided by the Lab, and that the Lab had evidently not provided all pertinent information prior to trial.

Mignon Dunbar should be gratified to know that we lost the motion for new trial. The Court found that there was insufficient evidence to justify the granting of a new trial based on what we contended was the withholding (albeit argued to have been innocent on the part of federal authorities) of the many pages of documents that we received after trial.

The reason for my discussion of the SFPD Crime Lab situation was to provide a fairly current example of a situation in which the question boiled down, in part, to whether there had been an obligation to turn over material that might have allowed the defense (at the time of trial) to more fully confront the analysts who testified - who might have had perfectly plausible answers to the defense questions, had the defense had the documents in hand to ask them. The letter writer from

cont'd page 8

The Editor's Desk

Forward and Back

Working on the Future and the Importance of Understanding the Past

A recurring topic of my editorials is to stay informed and get involved in our profession. Staying informed and being professionally involved means different things depending on where you are in your career.

At the beginning of your career, your focus is on ensuring you know your laboratory's policy and procedures. You are learning what your specific duties are and what is expected of you from your employer. At this stage it is hard to look much further than your own laboratory walls.

During your next professional development stage you should be looking at what other laboratories are doing and what research is being performed which might become your newest analytical procedure. This is a stage focused on the improvement of your analytical skills and seeking improvement of your laboratory's ability to meet its customer's needs. At this point, becoming professionally involved is essential. By attending seminars you will learn about the newest offerings of the tools of the trade, procedures and practices being used by other laboratories and creating valuable contacts with other professionals in your field.

Finally, being informed and involved means learning about and influencing the things that drive our profession and effect how you and your colleagues are allowed to do your jobs. As scientists, we determine the best analytical tools and techniques needed to tease out as much information as possible from physical evidence to help answer the questions posed by a criminal investigation. But, more and more, it is non-scientists who are determining what credentials you must have, whether or not you must be certified, what information you should receive regarding an investigation, how your work is funded, and who should be your employer.

Decisions about your work environment and how your work product goes from the work bench and instruments to the courtroom are not made in the laboratory, but rather by court rulings, local, state and federal legislation and, unfortunately, all of these are impacted by the press and popular media. Though our academic training is in the sciences, to ensure we maintain input and influence in how our profession operates, it has become essential we also learn the legislative process, policy development and how to interact positively with the press.

We need more of you to become informed and involved in our profession to ensure forensic science professionals have input into all aspects of our work environment and processes.

Reviewing the Historical Work of Crime Laboratories

When you have been a criminalist for as long as I you will eventually have the dubious honor of having one of your old cases resurrected, re-examined and/or re-evaluated. When that occurs, you quickly discover how dramatically things have changed over the years. We all know the tools of our profession have improved and today we can get more information out of smaller items of evidence than ever before. However, if you have only been in the field for ten years or less, you are probably not aware of how much note taking and report writing has changed. Changes in common practices and accreditation standards have improved the preparation of reports which do a better job of explaining what tests were performed, the results obtained from those tests, and most importantly, what those tests mean.

Being involved with the CAC throughout my career allowed me to regularly attend study group meetings, workshops and seminars. A common topic of discussion at these events was report content. Historically, without the specific reporting requirements which currently exist with ASCLD/LAB accreditation, laboratories had the flexibility to

cont'd next page

As much as crime laboratory reports and note taking processes have improved, it is important for us to remember the qualities present in today's reports do not automatically invalidate reports historically prepared by laboratories.



Greg Matheson
CAC Editorial Secretary

report as little or as much as they chose. Collectively, we went through phases in our reporting habits. Lively discussions would cover the pros and cons of what a report should include. For a quite a while, many laboratories believed a report which was simple and straightforward, without a lot of scientific jargon, was appropriate so our customers could easily see the bottom line. They wanted "just the facts." The supporting scientific data was in the analyst's notes, which should be accessible by all the parties in a proceeding, and we could always explain the whole impact of our conclusions when we testified in court. Unfortunately, the analyst's notes were not always requested or delivered and we weren't always called to testify. By sticking to just the bottom line, an incomplete picture was being provided which, on occasion, allowed the information to be misrepresented.

Thanks to our profession's desire to constantly improve and provide the criminal justice system with the best possible information, we have improved both the case packages and the reports. Accreditation standards have been revised to ensure all submitted reports meet a higher level of content to lessen the chances of misinterpretation or misrepresentation of a criminalist's information. In addition, legal standards, such as *Brady*, have been expanded and clarified over the years to ensure all parties have full access to all the information necessary to provide both an appropriate prosecution and a complete defense.

As much as crime laboratory reports and note taking processes have improved, it is important for us to remember the qualities present in today's reports do not automatically invalidate reports historically prepared by laboratories.

I do not condone bad practices, bad science, unscrupulous activities, incompetence, or biased crime laboratory personnel. It is our job as criminalists to advocate the evidence and to report, with full support and justification, the results of an analysis, including its strengths, weaknesses and limitations. But, I take exception to people using today's standards of practice to denigrate work performed by honest forensic scientists meeting the standards in place at the time the work was performed. I also take strong exception to criminalists being blamed for being unscrupulous or engaging in an attempt to convict at all costs when the prosecutor doesn't put the criminalist on the stand while knowingly allowing a criminalist's information to be misinterpreted. Finally, it is not a criminalist's fault when a defense attorney does not take the time or effort to understand what scientific results mean and don't mean.

Forensic scientists are not always perfect and some have stretched the truth or outright lied. Unfortunately, every profession has its miscreants. But let's not accept others frequently laying the blame of a wrongful conviction at the feet of the criminalist when they were honestly working to the standards of the time, and it was actually prosecutorial misconduct or defense incompetence that caused the evidence to be improperly interpreted in the court of law.

Becoming aware and involved in the non-technical aspects of our profession will help you better understand what is right and what is wrong with the delivery of forensic science in your community. You can have a positive influence on improving the profession and educating and influencing those who want to make uninformed changes. You hold the future of our profession.



the SFPD Crime Lab seemed convinced that my purpose was to provide erroneous information about the crime laboratory. As noted, if I did not make my points clear, that is my problem - and I owe your audience an apology if that is the case.

But if the points were more clearly made than Mignon Dunbar allows (as I suspect they were), the issue is this - the first federal death penalty case tried in San Francisco in more than 60 years was characterized by the failure to provide thousands of pages of Lab documents of the type requested by the defense prior to trial. Fortunately, the client was not condemned to death - which I suspect played a part in the Court's eventual ruling that while we were entitled to the discovery, the failure to have provided it prior to trial was not cause for a new trial. The cautionary note left for members of CAC to address is whether the labs that they are connected with might, in a similarly significant case, find themselves having to explain how thousands of pages of materials ended up not being provided in a timely way.

I very much appreciated the opportunity to address your group. Now that Mignon Dunbar has had the opportunity to voice concerns about my presentation, I hope that the SFPD Crime Lab is able to have a useful dialogue with the Office of the U.S. Attorney, Northern District of California, to explain how to avoid similar problems in the future. It is difficult for litigants in cases in which necessary disclosures are needed (like death penalty cases) to have some assurance that when they ask for pertinent lab material which they have the legal right to review, they get it.

John T. Philipsborn

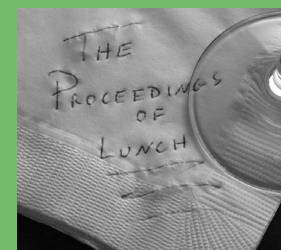
Professional Mistakes Have Broad Effects

Editor,

In [a] recent edition ["The Experience Fallacy," *The CAC-News* 4th Q 2010], Inman and Rudin, in their "Proceedings of Lunch," talked about the dispute between the advocates of "experience" as an adequate base for expertise vs. the advocates of education, training, and mentored experience as a the proper base for expertise in a professional field. Fortunately for the CAC members (and all other readers of the *News*) the frequent contributions of these two provide a valuable service to the field formerly known as criminalistics. However, one thing they left out of their report and discussion is the extremely important distinction between one learning in their personal life from experience, and learning a profession through experience. This difference is crucial because the person who suffers from a mistake made by a person learning what to do in their personal life is that person himself, and not anyone else!! When one makes a mistake in professional conduct while learning through "experience," the person suffering from that individual's mistake is another party, not the person making the mistake. This factor is a common element of innocent parties being convicted of a crime they did not commit. To add insult to this process, the person making the mistake rarely, if ever, suffers a meaningful consequence of their incompetence.

Robert R. Ogle, Jr.

Why Politics is Worse for Science than the Law



Whenever discussing recommendations for change or improvement of the *status quo*, it is our experience that much ranting, yelling, and pouting can be averted if the involved parties are first able to articulate their values. If agreement cannot be reached on the important, inviolable values that support the belief system of the various discussants, then further dialogue likely will be fruitless. If, on the other hand, some core set of beliefs can be articulated, then a basis exists for optimism that some progress can be made on the topic at hand. Conversely, without some shared basic values, any product of such discussions risks being solely window dressing, unsatisfying to any party, and without sufficient foundation to stand the test of time.

With that as prolegomenon, let us at the outset attempt to state our values, beliefs and assumptions relevant to the topic at hand:

1. We value the concept of science;
 - a. The most important word in the phrase “forensic science” is *science*. If whatever we’re doing cannot be defined as science, we’re not interested in it. Forensic is the modifier in this instance and simply tells us the ultimate destination of the science.
2. We value the benefits of science serving the law;
 - a. Science in the service of law provides unique benefits to the administration of justice.
3. We value transparency and disclosure;
 - a. Every analysis, whether in a research environment, a corporate setting, or a crime laboratory, must result in a complete and transparent disclosure of materials, methods, data results, assumptions and conclusions.
4. We believe and understand that science has many definitions, including (but not limited to):
 - a. Categorization through detailed observation
 - b. Hypothesis testing, including the explication of alternate hypotheses
 - c. Collection and analysis of data that can result in a prediction associated with measurable uncertainty.
5. We assume incomplete knowledge;
 - a. We have not yet achieved, nor do we ever expect to achieve, complete and perfect knowledge of the physical world.

6. We assume that science is an on-going process, not an endpoint;

- a. The practice of science is constantly refining our knowledge of the physical world.

7. We believe that the NAS report contained appropriate and substantive recommendations that, if implemented, would strengthen the practice of existing forensic disciplines and further the profession of forensic science.

With that in mind, we would like to provide our commentary and observations on the proposed legislation concerning the reform of forensic science. You may agree or disagree with our thoughts on several levels:

1. You do not share the values we outline above. If we meet at the bar, we’ll be drinking at separate tables.
2. You share our values, but disagree with our comments on the pending legislation. A dialogue is in order (in fact, we’re simply adding to the one already in progress throughout the country). We’ll meet you at the bar, let’s go dutch.

3. You share our thoughts and our observations. Back at the bar, we’re buying.

We start with the title. The legislation to be introduced into the Senate by Senator Patrick Leahy (D-VT) is entitled the “Criminal Justice and Forensic Science Reform Act of 2011.” The implication in the title is that forensic science needs changing (reform). Because science is a process, not an endpoint, and is therefore always provisional and subject to update based on new information, it is a tautology to talk about forensic science reform. Science

is constantly re-forming our knowledge of the physical world, and, relative to our profession, what we believe to be true about any piece of physical evidence that we examine. We suspect that what the legislators are proposing to reform is the *practice* of forensic science, and here is where clarity afforded by values is useful. Some practitioners believe that the science on which their practice

is built is perfect and complete, and change is not necessary; here we reference the fingerprint examiners who contend that the science of fingerprint analysis is perfect, but the practice of fingerprint analysis may result in errors if

cont’d next page



Proceedings

ACE-V is implemented imperfectly¹. We reject this notion; in science, change in our knowledge is constant (unless we stop looking). Other practitioners believe that their science is good enough, as demonstrated through validation, for the purpose for which it is intended. Here we reference the toolmark community, who state that a match based on their AFTE Theory of Identification (caps theirs) or Consecutive Matching Striae (caps still theirs) makes an adventitious hit a “practical impossibility,”² and that no further work is required to substantiate this claim³. We reject this notion as well, for it fails to recognize the inherently probabilistic nature of science; if we are unable to estimate the uncertainty of our inference (in this case, of common source), then we haven’t completed our analyses and have more work to do. In other words, we need to continue doing science. To the extent that the legislation is designed to reform the practice of forensic science by encouraging adherence to both the letter and spirit of science as outlined above, we are on board; where it strays from that, we object.

Before beginning our more detailed analysis we offer an additional observation. When a governmental entity desires change, the means is often provided in the form of an incentive. The federal government is rarely in a position to change something directly; it typically uses a carrot approach. It may not meddle with the substance of matters, but trusts that money (which is the carrot) will naturally result in positive change (change in the desired direction). In this case, the legislation also provides a bit of a stick as well; the formation of an Office that has sweeping oversight over the practice of the profession. Various flavors of carrot have been around for a while in forensic science, but the stick is new; carrot *and* stick approaches have the potential to completely change the practice of forensic science. This has naturally resulted in panic on the part of various stakeholders, an emotion than naturally transmutes to spin. The spin is getting faster and ever more furious as the date for introduction of the legislation approaches.

The remaining commentary on the pending legislation cites the page and line number for your reference. A link to the draft can be found on the CACNews web site at www.cacnews.org/policies/current_policy_issues.shtml.

3:23 The stated main goal of the Act is to strengthen and promote confidence in the criminal justice system, achieved by promoting a series of actions recommended for forensic science. We contend that the main goal should be those items mentioned as the vehicle to promote confidence: best practices, consistency, scientific validity, and accuracy. Confidence in the criminal justice system should come as a result of the competency and adequacy of the science. One could construe the sentence as saying just that, but one could also argue that confidence in the criminal justice system could be achieved by other means, for example, by educating the public and other professionals that current practice is competent and adequate for its intended purpose. We reject this last notion, and would hope that the goal would be restated as encouraging the continued and on-going development of best practices, validation, consistency, improved measurement of uncertainty, and

1 Scarborough, S. “They Keep Putting Fingerprints in Print.” <http://www.cacnews.org/news/2ndq05.pdf> . Pg 9,18,19, final two paragraphs

2 www.ojp.usdoj.gov/nij/training/firearms-training/module13/fir_m13_t05_07.htm

3 Nichols, RG. “Defending the Scientific Foundations of the Firearms and Tool Mark Identification Discipline: Responding to Recent Challenges.” JFS. 52:3, 586–594.

accurate expressions of the strength and significance of physical evidence.

4:4 Title I – Structure and oversight.

4:7 The legislation recommends the establishment of the Office of Forensic Science within the Office of the Deputy Attorney General in the US Department of Justice. The Office has great potential to focus, coordinate, and consolidate the profession and its resources, but its placement within DOJ directly refutes the NAS recommendation⁴ that forensic science be removed from the umbrella and administration of law enforcement. We certainly recognize that this is pure politics; creation of the Office at all requires the compromise of its placement. However, this one decision has the potential to undermine many of the other reforms suggested, not only by the NAS report, but also by many other observers over the years⁵.

4:12 The Director of the Office is to be appointed by the Attorney General; this again takes “the path forward” in the wrong direction, especially given the powers conferred upon this individual in the descriptions that follow. This structure perpetuates the decades-long mistake of placing both law and law enforcement over science. Our objection is less the risk of wholesale corruption of scientists by law enforcement personnel, than the more subtle, but insidious, concern that laboratory analysts work in an atmosphere that actively discourages the consideration of alternate hypotheses, an essential element in the practice of science.

4:14 The Deputy Director is to be appointed from NIST; this is a welcome compromise. However, especially given the sub-optimal structure of placing the OFS within DOJ, the position should be given power commensurate with the Director. The message, again, is that science is subordinate to both law and law enforcement. While science is to serve the law, science must be able to exercise dominion over its own work. Of course the political forces of law enforcement have directed this compromise, but that is precisely why this placement should be resisted; once again, what appears good for law enforcement may be bad for science.

6:7 “The Director *in consultation with* the Deputy Director....”: This wording is used throughout the document and indicates that science is, once again, only advisory to law and law enforcement. This is a recipe for disaster and counter to the recommendation of the NAS.

7:12 “The Deputy Director... shall oversee... the implementation of any standard, protocol... ” This structure, which requires responsibility without commensurate authority, is counter to good management practice and would likely fail. It again subjugates science to law and law enforcement, counter to the recommendation of the NAS.

7:21 “In general ... upon receiving a recommendation from the Board, the Director shall – (i) give substantial deference to the recommendation...” In other words, the Director has ultimate and absolute power to make decisions. This is problematic for two reasons:

1) Giving any one person absolute power is inherently undemocratic and could potentially lead to grave problems.

4 NAS, Committee on Identifying the Needs of the Forensic Sciences Community (2009), Strengthening Forensic Science in the United States: A Path Forward, The National Academic Press (2009). Recommendation 1

5 Melson, K. “The same-old, same-old, or bold new leadership?” PULSE Conference <http://pulse.law.ucla.edu/events/archives/2009-10/forensic-science/agenda/>

2) That person is a Department of Justice employee, directly contradicting the recommendation of the NAS. Other examples of this power appear throughout the document and are disturbing.

9:2 “There is established a Forensic Science Board to serve as an advisory board...” Again, scientists are only allowed an “advisory” capacity “to strengthen and promote confidence in the criminal justice system.” This is, simply, the wrong approach. While forensic scientists do work at the behest of the criminal justice system, they must have more control over their own destiny than implied by being placed in a mere “advisory” role.

10:14 The composition of the Forensic Science Board, advisory as it is, looks relatively promising, with appropriate breadth of representation of stakeholders. However, it is unclear which Federal, State, and local government officials are meant, and what meaningful role they might have to play. The other players are clearly relevant to the practice of forensic science. This needs clarification, and perhaps modification.

13:1 The Forensic Science Advisory Board, like the Deputy Director, suffers from responsibility without authority. This is a deadly combination, and a poor management structure, that will inevitably lead to frustration and gridlock.

16:2 The Board may recommend that a field from which courts hear forensic testimony, or admit forensic evidence, be excluded from those disciplines subject to OFS control if that discipline has an “insufficient scientific basis.” This is potentially dangerous, as it excludes the most marginal fields from formal national scrutiny. More oxymoronic, however, is that, following opinions expressed in the NAS report about the scientific basis of many disciplines, this would, a priori, exclude all fields except DNA. Alternatively, the Board would be making an uninformed and *ad hoc* decision about the scientific basis of various disciplines, rather than carrying out the mandate to actually determine whether a scientific basis exists, or directing research that would establish a firmer scientific footing for that discipline.

Title III – Certification of forensic science personnel

36:24 “...an entity that – (1) is not a forensic science laboratory; and (2) conducts forensic testing, analysis, identification, or comparisons, the results of which may be interpreted, presented, or otherwise used during the course of a criminal investigation or prosecution.” This recommendation is clearly meant to apply to defense consultants as well as independent laboratories. Applying uniform standards is appropriate. We wonder how this will affect academics who might work for either prosecution or defense, and opine on forensic matters only as an adjunct activity. It is unlikely that those players would be willing to spend the time, energy, and money to meet formal certification requirements. It is unclear how this will affect the ability of either side to utilize such consultants, especially as the standard appears to encompass non-testimonial consultation. A more reasonable definition might apply the standard only to those individuals who ultimately testify to their results and conclusions.

39:17 While a need obviously exists for some sort of grandfathering clause, we want to avoid what happened in forensic DNA. The PhD requirement for the technical lead was watered down to a Master’s degree, and many achieved that qualification by performing a trivial and predictable forensic validation study rather than by performing original research.

Title V – Standards and best practices are to be recommended for each forensic science discipline, including:

55:3 Standard protocols: Whatever protocols are created must still allow for professional judgment and scientifically supportable variations. A cookbook approach would be more detrimental than helpful. Thus an obligate companion clause should require that forensic scientists must have a sufficient level of education, training, and experience such that they can function as true independent scientists, not just technicians.

55:4 Quality Assurance standards: These must be understood as minimum operational standards. Such standards neither guarantee a correct result in any particular case, nor preclude same in their absence.

55:5 Standard terminology for use in reporting: We support standard terminology, but only as a minimum requirement. It is typical within the field to minimize rather than maximize the verbiage in a report. Requirements for transparency and completeness must accompany any standard wording; we could well imagine a glossary accompanying a report (or available on a website) that provides further clarity and deeper discussion of the meaning of terms used in a report.

58:1 “...the process for developing, reviewing, and updating the uniform standards and best practices is open and transparent to the public.” The requirement for openness and transparency must be more than window dressing, it must be real and complete. An opportunity must exist for public input prior to the implementation of any standard. All meetings must be open to the public, and the minutes available on the public web site. All communications should be provided upon request.

64:1 Anonymous reporting for whistleblowers: No reason exists for taking 3 years to establish a system for anonymous reporting. Certainly such systems already exist in other professions. It should not take more than a year to enact such a system. This is a critical element for the profession to move forward.

65:4 Code of Ethics. No reason exists for taking 3 years to establish a code of ethics. Several already exist. The CAC has been working on one to meet this exact anticipated need for several years and, in fact, recently conducted a workshop at an AAFS meeting to obtain national input. This document could be used as a well-developed starting point.

So what do we think? That once again science has been subjugated to the needs and desires of law and law enforcement, and that scientists have yet again been stripped of power to insist that science be the primary value driving a forensic examination or analysis. Not only will the Office be in the hands of an agency directing law enforcement activities, the monies allocated for research will be doled out by that agency as well. And lest you get the wrong impression, we are not anti-law enforcement; we are pro-science. And we don’t see the primacy of science in this legislation.

So perhaps it is time to take ourselves off to the bar (virtual sharing courtesy of iChat).

Ed. note: Be sure and review the latest version of the Leahy bill (revised) on www.cacnews.org/policies/current_policy_issues.shtml.

CANDIDATES FOR THE CAC Board of Directors



President Elect

We are searching for and soliciting qualified and interested members who would like to lead the CAC in the position of President-Elect.

Please contact Robert Binz:
bbinz17@occl.ocgov.com



Mey C. Tann
Regional Director, South

I have been a criminalist with the DOJ Riverside Crime Laboratory for approximately the past 12 years, and have been a member of the CAC since 1997. I have previously served on the Awards Committee as the co-chair (2005-2009) and as the regional director, south (appointed by the board of directors in 2010). And now, I would appreciate the opportunity to continue as your regional director, south. Professor Longhetti encouraged us from the very beginning to participate in CAC activities whether this participation was in the form of serving on a committee, board or attending study group meetings or seminars. I am glad I took his advice as I feel I am a better criminalist today having had the pleasure of meeting a myriad of individuals and being able to draw upon their vault of knowledge. I would appreciate the opportunity to continue to serve as the CAC regional director, south and would like to encourage member participation of CAC activities.



Greg Matheson
Editorial Secretary

I would appreciate your vote and support for an additional two years as your editorial secretary.

I am currently the director of the Los Angeles Police Department Crime Laboratory.

I have been in supervision and management with the LAPD for over 20 years, but the majority of my professional involvement and commitment has always with the California Association of Criminalists and I hold the CAC in high esteem. I have had the opportunity to hold several committee and leadership positions in the CAC and have thoroughly enjoyed becoming re-involved as the editorial secretary. If you feel I have done a good job as the editorial secretary for the last two years I would appreciate being re-elected.



Laura Silva
Treasurer

I have been a criminalist for the Oakland Police Department Criminalistics Laboratory and a member of the CAC since 2007. I am actively involved in CAC events, attending as many CAC seminars and study groups as I can. I served on the CAC Financial Review Committee in 2008 and 2009 and was the CAC assistant treasurer in 2010. Through my involvement in the CAC, I have met many fantastic people in the field and truly believe it has made me a better criminalist. I have previous work experience managing budgets and I am familiar with typical investment strategies. I enjoy giving my time to the CAC to ensure it maintains fiscal health and would be honored to serve as CAC Treasurer.

 **ote !**

SET SAIL SPRING 2011

The Scientific Services Bureau of the Los Angeles Sheriff's Dept. invites you to a truly one-of-a-kind CAC Seminar...

CSI WORKSHOP

Crime scene sketching techniques and crime scene scenario analysis: First, practice your skills and learn some useful tips for efficient and accurate crime scene sketching! Then, challenge your critical thinking skills with a crime scene presentation by James Stam – is it homicide or suicide? Find out by signing up for this half-day workshop!

DNA WORKSHOP

This one-day workshop will cover current technologies in forensic biology, including presentation of LASD's Prep-Filer validation. Interesting and unusual case experiences will also be discussed.

FIREARMS WORKSHOP:

Ruger Mini-14 and P-Series Armorer Course: This two-day armorer course will consist of both lectures and hands-on exercises pertaining to the operation of the firearms, detailed assembly and disassembly, troubleshooting, and maintenance. Class size is limited so register for this workshop early!

TRACE EVIDENCE WORKSHOP

Presented by Jenny Smith, Missouri State Highway Patrol Crime Laboratory. This one-day workshop will focus on the analysis of pressure-sensitive tapes commonly received as forensic evidence. A variety of materials and different instrumental methods for analysis will be discussed with an emphasis on those exams that are most discriminating. Limited to 20 participants.



QUALITY ASSURANCE WORKSHOP

The Management System: Integrating Laboratory Management and Supervisors with QA.

Geared toward quality assurance personnel, this half-day workshop will offer QA Managers an opportunity to learn how to better work with their laboratory management and supervisors to achieve the ultimate goal of attaining or maintaining current accreditation. This is a great opportunity to work with other QA managers to share possible issues you might be experiencing and obtain new ideas for how to bridge the gap between QA and management and make the accreditation process more of a team effort.

GENERAL TECHNICAL SESSION HIGHLIGHTS:

Don't miss out on a five-member panel discussion covering current legal issues in forensic science. The panel will include a judge, district attorney, defense attorney, and two criminalists. Hear their opinions on the latest changes to affect the field and get your questions answered!

Several interesting case examples will be presented, including the case of serial killer Rodney Alcala presented by DDA Gina Satriano from LA County and DDA Matthew Murphy from Orange County.

More presentations, papers and topics are being added; Visit www.cacnews.org to register online!

CAC Spring Seminar · Long Beach, CA · The Queen Mary Hotel · May 16-20, 2011



Dave Stockwell, Man, Myth & Legend . . .

Presented here are a few photos decorating at the recent (well, November 7th) retirement party for our own Dave Stockwell.





Ethical Dilemmas

DISCUSSION CORNER WITH CAROLYN GANNETT

When Must an Individual Report Unethical Conduct?

The Scenario: Liar, Liar, Pants on Fire

The background check of an applicant for a position in your lab reveals that key statements in her CV are blatantly false. What proves not to be false is that she holds memberships in AAFS* and CAC (as do you). She clearly violated both of these codes. Are you required to report her unethical conduct?

DISCUSSION

Whether or not you are required to report this applicant's breach of ethics depends, in part, on the codes of ethics under which you practice. It also depends on the associations to which she belongs. An association can only impose sanctions against its own members. And, with one exception, when an association mandates reporting, the recipient of the report is that association. So, the only time you would be required to report her (with one exception) is if she and you belong to the same association, that association mandates reporting, and her breach of ethics falls within the association's criteria for mandatory reporting.

The exception is ASCLD/LAB's *Guiding Principles of Professional Responsibility for Crime Laboratories and Forensic Scientists*. (Good gracious, ASCLD/LAB! Could you have thought of a more verbose title?) Point #5 states, "Report to the appropriate legal or administrative authorities unethical, illegal, or scientifically questionable conduct of other laboratory employees or managers." This wording expands options for recipients of a complaint beyond that of an accused's association to "appropriate legal or administrative authorities." So, it is not necessary for both the complainant (you) and the accused (the applicant) to practice under ASCLD/LAB's document in order for reporting to be mandatory. But, the wording limits the subject of the complaint to "other laboratory employees or managers." The applicant never made it to employee status, so ASCLD/LAB's document does not require you to report her. Furthermore, even if the applicant were to become employed in another laboratory that practiced under ASCLD/LAB's document, you still may not be required to report her. The wording in ASCLD/LAB's document is not clear. If "other laboratory employees or managers" means those within your own laboratory, then, no, you would not be required to report her. If it means the employees or managers of *any* laboratory, then, yes, you would be required to report her. Clarification in writing from ASCLD/LAB would be in order prior to deciding on a course of action.

In the CAC code and NWAFFS draft code, paragraph V.F states, "It shall be ethical and proper for one criminalist to bring to the attention of the Association a violation of any of these ethical principles. Indeed, it shall be mandatory where it appears that a serious infraction or repeated violations have been committed and where other appropriate corrective measures (if pursued) have failed." The first sentence says that it's OK to report someone—wording aimed to protect a complainant and offer guidance to those new to the field. (Similar wording in the ABC, MAFS, and NEAFS codes is all that is said by those codes about reporting breaches of ethics.) The second sentence describes the conditions under which reporting is mandatory. If a serious infraction or repeated violations have already been rectified by means other than reporting to the association, there is no need to report the matter to the association. This differs from ACSR, ASCLD C, CSFS, IAI, and MAAFS, which mandate the reporting of *any* breach of ethics.

cont'd next page

Share your dilemmas at
ethicsforum.cacnews.org.

The scenarios presented here may be real events, adaptations from real events, or fabrications designed to illustrate a point. If you have an ethical dilemma that you would like to have discussed (real, fabricated, or somewhere in between), you may submit a sanitized version to the author for consideration; send it to GannettForensics@aol.com. Ethical dilemmas will be evaluated against the content of over twenty associations' guidelines for professional conduct. Each association has a different document, although there may be considerable overlapping content. Often the ideas expressed in these guidelines are open to interpretation. The views expressed here are those of the author. Readers are encouraged to contribute their own views in an open discussion on the CAC website—go to ethicsforum.cacnews.org.

*ACRONYMS:

AAFS	American Academy of Forensic Sciences
ABC	American Board of Criminalistics
ABFDE	American Board of Forensic Document Examiners
ACSR	Association for Crime Scene Reconstruction
AFTE	Association of Firearm and Tool Mark Examiners
ANZFSS	Australian and New Zealand Forensic Science Society
ASCLD C	American Society of Crime Laboratory Directors (Code of Ethics)
ASCLD G	(Guidelines for Forensic Laboratory Management Practices)
ASCLD/LAB	American Society of Crime Laboratory Directors / Laboratory Accreditation Board
ASQDE	American Society or Questioned Document Examiners
CAC	California Association of Criminalists
CSFS	Canadian Society of Forensic Sciences
ENFSI	European Network of Forensic Science Institutes
FSS-UK	Forensic Science Society (United Kingdom)
IABPA	Int'l Assoc. of Bloodstain Pattern Analysts
IAI Int'l	Association for Identification
MAAFS	Mid-Atlantic Association of Forensic Scientists
MAFS	Midwestern Association of Forensic Scientists
NEAFS	Northeastern Association of Forensic Scientists
NWAFFS	Northwest Association of Forensic Scientists (code is not yet ratified)
SAFS	Southern Association of Forensic Scientists
SWAFS	Southwestern Association of Forensic Scientists

Ethical Dilemmas

Period. No qualifications. (Note that the CAC code does not mandate that “other appropriate corrective measures” be pursued before reporting a breach of ethics to the association.)

Applying the CAC code to the scenario, you would only have to report the breach to the CAC if: 1a) no other appropriate corrective measures were taken, or 1b) other appropriate corrective measures were taken and failed to rectify the breach, and 2) you believe that the breach is a serious infraction or a repeated violation. The latter is based on the judgment of each individual. When in doubt, consult with the CAC Ethics Committee—that’s one of the reasons they exist.

What about the AAFS? She and you are both members. However, nothing is found in the code that mandates the reporting of unethical conduct. Many associations take this route, including: ABFDE, AFTE, ANZFSS, ASCLD G, ASQDE, ENFSI, FSS-UK, IABPA, SAFS, and SWAFS. Why would this be, when the reality is that the quality of the profession relies upon practitioners policing each other? The people most

likely to know that something has gone ethically awry with an individual are those that work most closely with that person—coworkers and other close colleagues. So why would an association not mandate that we all take responsibility for pointing out questionable conduct?

So, in short, you are not required to report her breach of ethics to the AAFS. You may or may not be required to report it to the CAC. That would depend on whether you choose to apply other corrective measures, whether those measures are successful, and whether, in your opinion, the breach is a serious infraction or a repeated violation.

This scenario has covered reporting a breach of ethics by another person. But, what about self-reporting? By that I mean reporting one’s own unethical conduct to an association. Sound absurd? Well, guess what, the IAI recently had a bout of self-reporting incidents, all for the same breach of ethics. Tune in next issue to hear all about it.

Remarkable “Micro Stuff” from Ed Jones

We’ve featured Ed’s amazing microscopic art before, but here is some of his latest effort. These new slides were made to be auctioned off at the AAFS meeting in Chicago. Ed says, “Last year both slides were auctioned together and got \$60, though they did not tell me who got them. The first year the two slides got \$65 and they went to a Lexington, KY veterinarian specializing in reproductive services. I do have pictures of the slides that were sold. I expect this years bidding to go higher because of all the microscope people in Chicago. Here are images of the FLORIDA 2011 slide that I made for the same AAFS auction.”



FLORIDA
2011

Ed arranged each letter from grains of sand collected from local environs. In these two examples, the “F” is comprised of sand from St. Augustine, and the “2” is from Florida’s Halloway Island. At left is the entire work at approximately actual size.



3rd International Conference on Criminal and Environmental Soil Forensics

The 3rd International Conference on Criminal and Environmental Soil Forensics was held in conjunction with the American Society of Agronomy, Crop Science Society of America, and the Soil Science Society of America Joint International Conference at the Hyatt Regency Hotel and Convention Center in Long Beach, California.

The November soil forensics meeting was attended by approximately 50 delegates representing 11 countries from at least 4 continents.

Both oral and poster presentations were given on topics covering environmental contamination, homicide cases, provenance studies, analytical techniques, soil databases, the use of plant material, diatoms, pollen and fungi in soil forensics, and the use of various biochemical and chemical soil analytical techniques for the detection of grave sites.



Dr. Raymond Murray (pictured with Marianne Stam), the founder of the modern day forensic geology discipline in the United States, and the co-author of one of the first actual textbooks in forensic geology, was awarded the prestigious Forensic Geoscience Group (FGG) Award at the conference. The FGG is part of the Geological Society of London, which is the oldest geological society in the world. This is truly a great honor for Dr. Murray.

INTRODUCTION

The Recovery of footwear impression evidence is dependent upon several factors:

- 1) The impression is dust or mark transfer.
- 2) The surface is porous or non-porous.
- 3) The impression was produced wet or dry.
- 4) Geographical soil components.

The use of a vinyl lifter to recover crime scene footwear impression from a non-porous surface is a recognized method of impression evidence recovery. A dust impression recovered onto a vinyl lifter can, at times, lack the necessary clarity to conduct a forensic examination. Research was conducted in the LVMPD Forensic Laboratory to determine if it was possible to chemically enhance the footwear impressions recovered onto the vinyl using Gentian Violet. Research also included processing half of the lifters with Cyanoacrylate fuming prior to Gentian Violet in order to determine if overall enhancement improved with initial CA processing.

Geographical soil components guide the analyst as to the choice of chemical to be used for enhancement. The desert area of Las Vegas is composed of small angular rocks and sand with a pH range of 7.0 to 12.0, presence of Calcium Carbonate, and a low percentage of organic matter. Gentian Violet is a histological dye with a low base pH indicator that reacts to organic matter, oil, and grease. It also reacts to Calcium Carbonate, therefore Gentian Violet was chosen as the Chemical of Choice to enhance footwear impressions recovered onto the vinyl lifter.

PREPARATION

Gentian Violet is prepared by mixing 1 gm of Crystal Violet to 1000 mL of distilled water followed by placing the mix onto a stirring plate for 25 minutes. Gentian Violet is stored in a dark glass bottle and does not have a known shelf life.

A Gentian Violet bath is prepared by pouring an adequate amount of Gentian Violet into a rectangle dish. The vinyl lifter will be dipped into the Gentian Violet bath and remain submerged for 1 to 2 minutes. A second rectangle dish is used to submerge the Gentian Violet-processed lifter in a bath of cold tap or distilled water. Excess Gentian Violet can also be removed by spraying water onto the vinyl instead of submerging the lifter into water.



Footwear impressions were produced using soil with the following properties: pH range of 7.9 to 9.0, 5 to 15% Calcium Carbonate, and 0.-0.5% organic matter.

Asics shoes were used as the outsole pattern contains a variety of element shapes & sizes.



METHOD

Transfer of footwear impressions from surface to vinyl lifter completed in one of two methods:

- 1) Non-porous surfaces: Impression recovered directly onto the vinyl lifter. The recovered impression is a reverse image of the original impression.
- 2) Porous surfaces (paper) or non-porous surfaces that are fragile (lacquer or paint coatings) may be damaged in the recovery process using a vinyl lifter. For these surfaces, a gelatin lifter was used to recover the impression. It was then used to transfer the impression to the vinyl lifter. This provides a recovered impression in the correct (or right-read) orientation.

Past research revealed footwear impression evidence on a non-porous surface can be enhanced through Cyanoacrylate fuming. The impression was then cut in half. One half would be processed with Cyanoacrylate fuming (Superglue) followed by Gentian Violet. The other half would be processed only with Gentian violet.

2

“Using Gentian Violet to Enhance Dust Impressions Recovered From Porous and Non-Porous Surfaces”

Jan Seaman-Kelly
Las Vegas Metropolitan
Police Department Crime
Laboratory.

Bob Blackledge spotted this four-panel poster, and by special arrangement with the author, we reprint it here. It was presented at the “Impression and Pattern Evidence Symposium” held last August in Florida. The symposium was co-sponsored by NIJ, Bureau of Justice Assistance and the FBI lab.

See more posters at:
projects.nfstc.org/ipes/

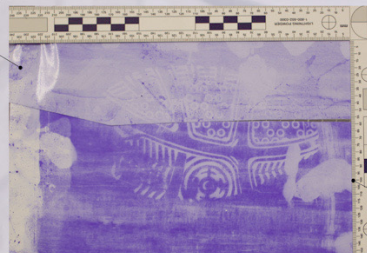
SMOOTH SURFACE EXAMPLES

Dust impression on galvanized steel.

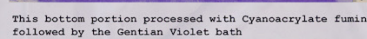


Recovered footwear impression on vinyl enhanced with Gentian Violet.

This top portion of the impression processed only with the Gentian Violet bath.



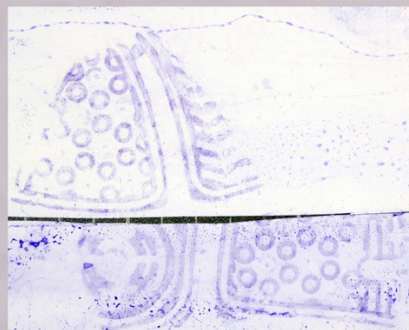
This bottom portion processed with Cyanoacrylate fuming followed by the Gentian Violet bath



Gelatin lifters were used to safely recover dust impressions from porous surfaces and fragile surfaces of non-porous materials. The recovered impressions were then transferred to the vinyl lifter in preparation for Gentian Violet processing.



Recovered footwear impression on vinyl enhanced with Gentian violet.

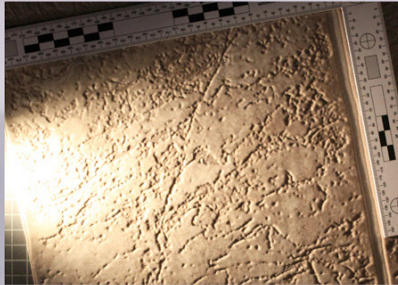


This top portion of the impression processed only with Gentian violet bath.

This bottom portion processed with Cyanoacrylate fuming followed by the Gentian Violet bath.

ROUGH SURFACE EXAMPLES

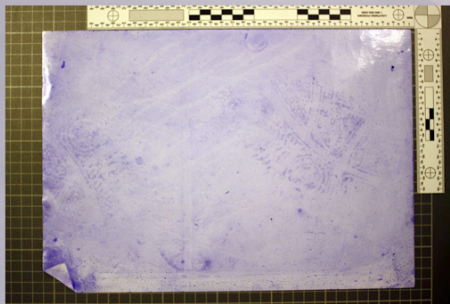
3



Footwear impression on rough textured linoleum flooring. It is not visible.



The impression is not visible on the vinyl

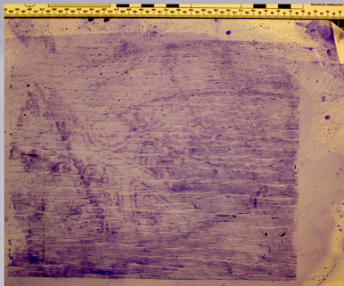
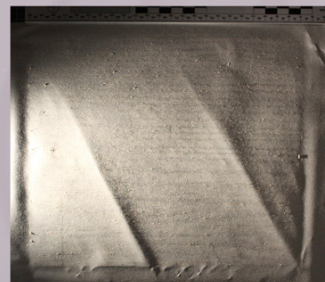


Processing the vinyl lifter using Cyanoacrylate fuming followed by the Gentian Violet bath enhances the impressions revealing the presence of two partial footwear impressions.

Footwear impression on a rough textured wood recovered onto a vinyl lifter.



Vinyl lifter reveals pattern of the wood surface



Vinyl lifter processed with Cyanoacrylate fuming followed by the Gentian Violet bath. Even though wood pattern present, the out-sole pattern is also visible allowing for an examination of class characteristics.

CASE STUDY & CONCLUSION

Vinyl lifter used to recover a footwear impression at a crime scene.



Vinyl lifter processed in the LVMPD Forensic Laboratory using Cyanoacrylate fuming followed by the Gentian Violet bath.



Additional outsole pattern was enhanced allowing for an examination of the outsole (as opposed to only a few elements) as well as an estimated size of the shoe that could have produced the impression.

LIMITATIONS

Tread mark or tread transfer impressions are not responsive to Gentian Violet processing. Powdered footwear impressions are not responsive to Gentian Violet processing.

SUMMARY

Dust footwear impressions recovered onto vinyl lifters were successfully enhanced when processed with Cyanoacrylate fuming prior to the Gentian Violet bath. Impression evidence can be directly recovered onto a vinyl lifter from a non-porous surface. For porous and fragile non-porous surfaces, a gelatin lifter can be used to recover the impression and then transfer it to a vinyl lifter with little to no loss in pattern detail. Gentian Violet is a suitable chemical for enhancement of impressions recovered onto vinyl lifters.

Recovering dust footwear impressions onto vinyl lifters which are then chemically processed with Cyanoacrylate fuming followed by the Gentian Violet bath is a cost effective method of impression enhancement. This method has been validated as an effective tool to aid in the examination of footwear impression evidence in the LVMPD Forensic Laboratory.

RESOURCES

Bodziak, W.J. (2000). Footwear impression evidence, detection, recovery and examination. 2nd ed. Washington D.C., CRC Press.

McCracken, D., and Matvay, J. (1990). An alternative method for recovery and identification of dust impressions from crime scenes. Fingerprint Whorld, 16 (62), 59-61.

Processing Guide for Developing Latent Prints (2001). Published by the U.S. Department of Justice Federal Bureau of Investigation, Washington, D.C.

ScienceLab.com. (2009). Material Safety Data Sheet, Gentian Violet, USPS MSDS.

Shor, Y., Vinokurov, A., Glattstein, B. (1998). The use of an adhesive lifter and pH indicator of the removal and enhancement of shoeprints in dust. Journal of Forensic Science, 48 (2): 368-372.

Shor, Y. (2005). Removing interfering contaminations from gelatin lifters. Journal of Forensic Science, 50 (6).

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