

The

CACNews

News of the California Association of Criminalists • Fourth Quarter 2014



greg
LASKOWSKI



CAC President

**...I have requested
that an ad hoc
committee be
formed to deal with
matters of DNA
interpretation and
statistics.**

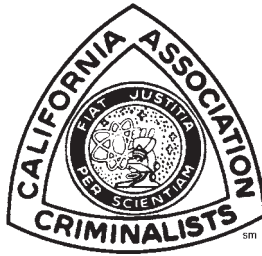
Dog Days of Summer

As you read this missive, the dog days of summer will be upon us. For many of us, summer means vacation time. Time to plan trips with family and friends, take flights or cruises to exotic places, or just spend some time at home away from the job, and all those collateral things that come with a career. This hasn't been the case for your board as they have been busy planning and working on the upcoming joint CAC/ NWAFS seminar in Rohnert Park this October. The DoubleTree Hotel in Rohnert Park will serve as our venue. It is located in the wine country, so we all can enjoy some libations after two days of workshops of which there will be several including: DNA, Introduction to Management, Fire Debris Analysis that includes a demonstration of flammable liquid detection canines, a two-day Court Skills workshop, a two-day firearms Workshop, A Drinking Study Workshop presented by the CHP, a Laboratory: Lean Six-Sigma Workshop, a workshop on the Practical Applications of UV, Visible, and IR Lighting at Crimes Scenes and Laboratory, and a workshop on the Future Trends of DNA Technology. Many of these workshops offer something for those interested in what is happening in some of the specialized areas of forensic science that can relate to the practice of criminalistics in a general sense. Of course, to learn more about these exciting workshops, please visit our CAC website at www.cacnews.org. There, you will find not only a brief description of each workshop's offering but a schedule as well. Our Seminar Planning Committee not only has done an outstanding job of developing workshops of interest to all practitioners, but a top notch technical program as well. And, we cannot forget some of the extracurricular activities, such as the Wine and Cheese reception, the Banquet, and most of all, please do not miss the opportunities to attend the business meetings of our respective organizations. Speaking of business meetings, I would invite those members attending to join us so that we can address some significant matters, one being a change to our by-laws. Article I, Section 4 requires revision in that it states, "N/A." I know of no organizations' bylaws that has such a statement. The Board will definitely have something to replace that inapt statement.

Before I leave the topic of the upcoming seminar, I do want to thank both boards of the CAC and NWAFS for the dedication and continued hard work in putting this seminar together. Without a host laboratory to plan, visit the hotel, and the facilities for the wine and cheese reception and the banquet, the responsibility fell on a couple of individuals to contact and travel to these sites to ensure that they will meet the needs of those of us attending this seminar. Arranging transportation for the attendees to attend these functions away from the host hotel can be a logistical nightmare for any organization, but our dedicated volunteers have taken great care that those attending will be shuttled back and forth from the hotel to the venues. In addition, a number of our board members have been contacting vendors and vendors have been contacting us. Without our vendors, these semi-annual meetings could not occur. The vendors play a key role in funding such things as morning breaks, the wine and cheese reception, the banquet, door prizes, and of course providing you a

please turn to page 4

FOURTH QUARTER 2014



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



"Crime Scene"

One of seven panels painted by Jett Jackson for Foray, LLC, who granted us permission to use it on our cover. They retain all rights.

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LASKOWSKI

chance to see the specialized instrumentation and equipment that is used in a daily basis in our laboratories. Many vendors have expressed a desire to attend these meetings because they hope to have face to face contact with their users and customers. A special thanks goes out to our CAC Seminar Planning Committee and its chair for acting as a liaison between the CAC and NWAFS to ensure that the joint meeting is a success. My counterpart at the NWAFS has been just as busy coordinating the various matters that one encounter when putting on this type of seminar. His team has been working in concert with ours. He has a great staff assisting him as well. And, to pull something of this magnitude off requires teamwork.

As part of my duties as president of this great association, I am tasked with forming committees for matters that arise that are relevant to the practice of criminalistics or deal with some issues that confront this organization. In the matter of an issue that is relevant to the field of criminalistics, specifically to the area of DNA analysis, I have requested that an ad hoc committee be formed to deal with matters of DNA interpretation and statistics. This committee is made up of DNA analysts who have extensive knowledge in the field. They represent both the southern and northern regions of our state, and they represent those working private practice, academia, and those working in public laboratories. They are committed to stay abreast of current trends and emerging technologies. In terms of association business, we have an ad hoc committee looking into revising the ethics code and the policies and procedures involved in ethics code enforcement. Again, membership in that ad hoc committee is made up of individuals that are familiar with the code and have participated in the enforcement of it. Further information regarding these committees and their memberships will be found in the Board's Minutes. I should like to add that I am pleased that those individuals who chose to participate in their respective committee assignments are of high moral character and have a wealth of experience and knowledge, and I thank them for their commitment.

I would be remiss if I did not remind those of you wishing to take the ABC exam that the exam will be held at the Double Tree Hotel on Tuesday, October 21st, not on Friday as we have done in the past. As you may remember in my first message to you as president, I indicated that I would be working towards taking the ABC exam to achieve diplomate status. Alas, I have not yet been able to work toward that end while president as duties of the office in addition my role as chair of the upcoming seminar presents a scheduling nightmare (The exam will be held during the board meeting). Rest assured though, as soon as I am able, and schedule permitting, I will submit my application, and take the exam. Whether I pass or not, I do remain hopeful that I will, is another matter indeed.

The last matter that I bring before you is of special interest to me and a number of you in this association especially those of you who respond to crime scenes. Recently, I was contacted via e-mail by Peter Ellis the editor of a new journal affiliated with the Chartered Society of the Forensic Science (CSFS) called the *CS Eye*. Apparently our friends across the pond have a new designation. The CSFS formerly known as the Forensic Science Society (FSS (UK)) received its royal charter status. This brings a new eminence to that organization. Henceforth, they are no longer referred to as the Forensic Science Society (FSS). The purpose of the e-mail was to inform the members of the CAC that this new publication was recently launched and that they were looking for an interested party

to serve on its editorial review board. To quote Mr. Ellis, "The editorial team for *CS Eye* is headed by Dr. Graham Williams from Huddersfield University with support from an editorial board formed from individuals with extensive knowledge and experience relating to the examination of crime scenes. The *CS Eye* journal focuses on crime scene sciences and collaboration between crime scene practitioners, forensic science providers, and academics. The journal is aimed as crime scene practitioners and colleagues associated with the examination of crime scenes. The journal will look to publish research articles, case studies, technical notes, professional articles, and other related material." To those of you interested in receiving a nomination to participate in the editorial board of the *CS Eye*, e-mail me your request along with a copy of your CV as an attachment so that the board can review the documents and make recommendation. You may send your letter of interest to president@cacnews.org.

I look forward to seeing and meeting all those planning to attend the fall seminar in Rohnert Park this October. Please visit our website at www.cacnews.org to register online for the meeting, submit an abstract for our technical program, to make reservations at the DoubleTree Hotel, and to arrange shuttle transportation to and from the airport and hotel. So drop what you are doing and get online while the early registration discounts still apply.

Kind regards,



CACBITS



Member Ed Jones shares this photo from a recent CAC study group meeting. Here, Detective Orlando Martinez of the LAPD talks to the group about the Michael Jackson homicide investigation.

InterMicro is on Facebook

McCrone Inst. announces, "We're excited that Inter/Micro has gone social! 'Like' our Facebook Page and join in the conversation with fellow fans of Inter/Micro. Write on our wall and tell us what you're thinking, scroll through our pictures and find information on the latest announcements. Share our page with all your friends!

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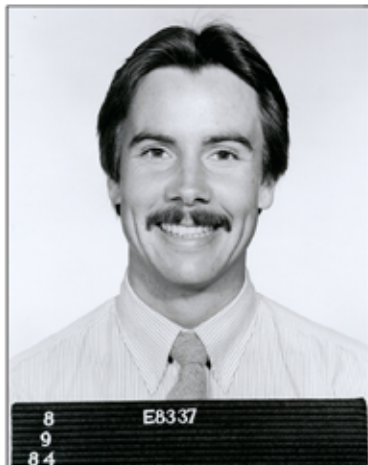
Hourigan Retires!

**Accepts
Position At
Department
of Defense**

Los Angeles Crimes

September 6, 2014

After 30 years of dedicated service LAPD ASSISTANT LAB DIRECTOR RETIRES



Narcotics: No Longer Allowed in Courtrooms!

By Dr. Timothy Leary

Los Angeles Municipal and Superior Courts announced that as of 1999, narcotics would no longer be admitted as evidence or allowed to enter the courtroom. In a sudden and surprising decision, the courts decided that they would only accept color photographs that documented the narcotics evidence. This turn of events prompted the Narcotics Analysis Unit, under the leadership of Supervising Criminalist Joe Hourigan, to incorporate the detailed photography of a narcotic samples tested in the laboratory. Furthermore, the photos needed to be made available to police officers, who needed them to introduce into court proceedings. This City-wide system was an enormous undertaking for SID's Crime Lab, and Joe Hourigan has been adjusting it over the past 15 years to meet changing technologies and user demands.



Phi Kappa Phi Selects Hourigan

By Linus Pauling

Chief Forensic Chemist Joseph Edward Hourigan was named in May 2012 to the nation's oldest and most selective all-discipline honor society, Phi Kappa Phi. He was invited to the Society because he excelled in the classrooms of California State University-Los Angeles and met the Society's good character standards. Mr. Hourigan studied Accountancy and achieved his Master of Science degree in that subject from Cal State L.A. on June 15, 2013. No one could predict that Joe's participation in the Forensic Management Academy in 2008 would spark his desire to transform from a forensic scientist to a forensic accountant. Consistent with his high personal standards, he accomplished this at the highest level and distinguished himself academically and personally for the distinction and honor of the Phi Kappa Phi Society.

Retirement Luncheon Info

Thursday
September 4th, 2014
11:30 AM

Almansor Court
700 South Almansor St.
Alhambra, CA 91801

Cost:\$40

To purchase tickets
contact Alicia Diaz
or Francine Segura
(323) 415-8100
by August 29, 2014

Methamphetamine Manufacturer Convicted!

By W. Heisenberg

Los Angeles County Deputy District Attorney Barbara Charnell reported a conviction in the trial of suspected methamphetamine manufacturer after a two and half week-long trial. A prosecution witness, Los Angeles Police Department Criminalist Joe Hourigan was noted for respectfully suggesting to the defense attorney a less confusing manner in which to present the information to the jury. Unable to proceed with efforts to further confuse the jury, the defense surrendered to the articulate, courteous and unbiased testimony of Hourigan, who managed to simplify the complexities of lab chemistry for the courtroom. Furthermore, Hourigan made a point of sitting in on the defense chemist's testimony to ensure no further "confusing chemistry" antics were used to boggle the jurors' understanding.



1,562 Kilos of Cocaine Seized

By Tony Montana

A multi-agency narcotics task force seized an 18-wheeler with a large hidden compartment containing over 1500 kilos of cocaine. This is a record seizure that took a team of laboratory criminalists, led by Joe Hourigan, over nine hours to process, fingerprint, photograph and analyze. The tractor trailer had a three-foot deep hidden compartment where the narcotics had been secreted to (unsuccessfully) avoid authorities.

Forensic Accident Investigation Team Formed, April 1988

By Evel Knievel

The Scientific Investigation Division Criminalistics Laboratory formed the Forensic Accident Investigation Team, consisting of volunteer Criminalists Greg Matheson, Leonard Henkhaus and Criminalist Joe Hourigan. This fledgling team was created to put better emphasis on the collection, preservation of evidence in felony hit and run investigations as well as felony drunk driving accidents.

Operations Director of LAPD Crime Laboratory

By Walter White

Named as the largest municipal crime lab in the nation, the Los Angeles Regional Crime Lab on the Cal State L.A. campus appointed Assistant Laboratory Director Joseph E. Hourigan as the Operations Director. In that capacity, Mr. Hourigan will assume the role of Security Manager as well as oversee the facility maintenance concerns that effect laboratory operations and employee safety. Hourigan is well qualified for this assignment based on his lengthy history of home repairs and "Honey-do" resume.

Wecksler: Arrested Again! Caught with Illegal Explosives

By Una Bomber

Gary Wecksler, a reputed domestic terrorist, maimed himself in an explosion, while cooking illegal explosives inside his residence. The potassium nitrate and black powder mixture exploded causing Wecksler to lose his left eye and two fingers. Fortunately, there were no collateral injuries to nearby residents affected by the blast. This most recent incident prompted a West Bureau Tactical Alert and hundreds of nearby Wilshire residents were evacuated in the middle of the night to a Red Cross evacuation center at Los Angeles High School. The nine-hour investigation was led by Criminalist Joe Hourigan, members of the Bomb Squad and detectives from the Criminal Conspiracy Division. Three years earlier, Wecksler was arrested for explosives in the Rampart area of Los Angeles, when another explosion injured eleven police officers and caused serious damage to nearby residences in that community.

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Hourigan Will Attend L.A. Area Greek Festival

See Greek | Page 6

Narcotics Analysis Laboratory Trust Fund

Printed on 100% recycled paper

Best wishes, Joe!

—Submitted by Sue Brockbank

A View Beyond the Bench

greg
MATHESON



CAC Editorial Secretary

**We need to
remove from our
profession “us
verses them”
thinking. We need
to completely
discard the
monopoly concept.
We need to
make everybody
and everything
(including
ourselves) our
competition.**

On Sunday night, August 10, 2014, I had the pleasure of spending the evening with Sir Paul McCartney and about 50,000 of our closest friends at Dodger Stadium. Though the venue was large (very large), McCartney delivered an amazing performance. The music he wrote and performed with the Beatles, with Wings, and as a solo artist, crosses generations of fans and the show at Dodger Stadium confirmed his appeal to all ages. However, what was most apparent in watching him perform is that he loves what he does. At 72 he played for 3 hours without a break. That is an admirable trait. I can honestly say I love our profession and usually love my job. I hope you all can say the same.

Sentinel Events

A little over a year ago I wrote my editorial in the *CACNews* about a roundtable discussion NIJ sponsored in Washington D.C. on sentinel events in the criminal justice system. It was an amazing event and I was very impressed with the dedication of all who participated. The focus of the roundtable was to explore the feasibility of developing a criminal justice system-wide process for dealing with sentinel events (like wrongful convictions), which would determine all contributing factors, not just the initial trigger. Following the roundtable, I was hoping this concept would take root and be explored further. I am happy to say the NIJ embraced the idea and have since started a few pilot type programs and is offering a grant to explore the concept further. The official publication of the roundtable - **Mending Justice: Sentinel Event Reviews**, is scheduled for release on Monday, September 8, 2014. I have had a chance to review a pre-release copy and I'm sure you will find it interesting.

Picking Cotton

Another benefit of the roundtable was the opportunity to meet and talk with Jennifer Thompson. I had heard her and Ron Cotton speak at an ASCLD meeting a few years back. Jennifer and Ron wrote a book called *Picking Cotton** about the wrongful conviction of Ron. He was convicted of sexually assaulting Jennifer and his conviction was largely based on her identification of him. They have subsequently become friends and are doing their best to educate the criminal justice system of the limitations of eyewitness testimony. Thanks to the opportunity to meet Jennifer at the roundtable, she and Ron have agreed to be our opening speakers at the joint CAC/NWAFS Fall Seminar. You don't want to miss their talk, it is compelling and will change the way you view eye witness testimony in particular and case information from detectives in general.

Competition vs. Monopoly

If you have read any of my previous editorials it is clear that my soapbox issues are how we as forensic science professionals view and interact with other members of the criminal justice process, the dangers of viewing the system in an us versus them mentality, and failing to recognize the importance of our critics. I have tried to point out the importance of looking beyond your workbench, your co-workers and your laboratory to understand the broad range of issues, ideas, and philosophies in the criminal justice system. Well, I'm going to go there again using the concept of competition vs. monopolies.

Let's start with a couple of definitions: **Competition**—The person or people with whom one is competing; the opposition. **Monopoly**—The exclusive possession or control of the supply or trade in a commodity or service.

For purposes of this discussion I am going to use the dreaded “us versus them” model where the “us” are government laboratories and the “they” are private laboratories, the defense bar, and special interest groups like the Innocence Project etc.

Since the first crime lab was established in the United States in 1923 at the Los Angeles Police Department until relatively recently, the application of forensic science was largely a monopoly. Except for a few exceptions, crime laboratories were located in law enforcement. Academia was involved, but the reality is the development of policies and procedures and the analysis of evidence that was presented in court occurred in law enforcement laboratories. Reanalysis of the evidence or review of the crime lab work was rarely done. This doesn't mean good work wasn't being per-

**CACNews, 3rd Q 2013; www.cacnews.org/news/3rdq13.pdf*

formed, because it was, but rather it took a concerted effort by intelligent, qualified and dedicated scientists working in those laboratories to seek better ways of doing things and ensuring the best possible policies and procedures were in place.

As time progressed, like any scientific discipline, forensic scientists recognized the need to interact with other forensic scientists outside of their own laboratory. Professional associations were formed, regionally and nationally, to provide a forum for dedicated forensic scientists to meet with their peers, share ideas and work on improving the profession. But a monopoly still existed and individuals and laboratories that chose to not participate continued to do their work in a vacuum.

My forensic science career started in 1978, fifty-five years after the laboratory was created. At that time we had no established policy and procedure manuals, training was virtually all in house and was passed on by another criminalist. Based only on my BS in criminalistics and following the criminalist I was replacing by watching how he did the tests, I was running the toxicology (non-opiates) drug program after 8 days as a criminalist. I was mostly independently handling evidence, performing analysis and writing and signing reports. Of course there were a bunch of articles to read and a supervisor and co-workers to provide support and advise, but very little formalized processes. I think I was doing good work, but there was very little competition to check and make sure. Involvement in professional organizations was not encouraged in our laboratory and we were told not to seek outside advice because that would show we needed help and we might not already know how to do our jobs right.

It is also very true that we as forensic scientists were rarely ever seriously challenged in court. There were occasional times when I testified that the defense attorney actually asked a few intelligently probing questions, but that was relatively rare. Because of our monopoly, I believe as a profession we felt like we were the scientists, we knew what we were doing, they didn't, and therefore we should not be challenged. The last case I actually performed analysis on was in the *People vs. OJ Simpson*. I remember walking back to the lab from court with one of the lead detectives. It had been a difficult court session early on in the proceedings and I was whining to him about how dare they challenge us the way they were doing. I wasn't used to having me or our laboratory challenged about the core work we performed. The detective not so politely called me an idiot for not understanding and accepting that we would and should be questioned and challenged. It was important to making us improve and do the best job we could for the criminal justice system. I felt like a child for the way I acted and from then on worked at understanding the importance of competition.

Over the 30+ years of my employment at LAPD things changed, for the better, but there is still lots of room for improvement. Accreditation was establishing operating standards and certification was created to help show the proficiency of practitioners. However, forensic science was still mostly a monopoly. Accreditation and certification, both very important, were created and run, mostly, by law enforcement employees. Also during those 30 plus years private labs became more prevalent, defense attorneys became more knowledgeable and aggressive, special interest groups were being established and our competition was growing.

The most important thing I have learned by being involved professionally, looking beyond my workbench and my laboratory, is to get a big picture view of our profession. It has

taught me the importance of hearing what our competition has to say and try and find something to learn from it. If I had spent my career working in a perfect law enforcement laboratory (I didn't) and didn't look beyond our doors, I might feel all the current crosschecks and balances provided by our competition was unnecessary and insulting. However, the reality is no laboratory is perfect (public or private), many still have strong law enforcement biases, many perform outdated tests and utilize outdated or just inappropriate procedures. The cross checking, the reviews, and the special interest groups, in other words, our "competition," makes us do better and improve ourselves in ways we would most likely not do on our own. Working within a monopoly is always easier. You get to do what you want and not worry about being criticized, but you won't improve. Just imagine what our computer operating systems would look like if there never was an Apple Computer and Microsoft had a monopoly.

We need to remove from our profession "us verses them" thinking. We need to completely discard the monopoly concept. We need to make everybody and everything (including ourselves) our competition. We need to listen to our competition to help push ourselves to perform constant review and improvement. By following this thinking we can only improve and serve the criminal justice system better.

To quote Sir Paul from the song Live and Let Die "When you've got a job to do, you gotta do it well." You all have important jobs to do, so let's do it well.

Thank you once again for the opportunity to share my thoughts.



FEEDBACK ◀.....▶

Listening to John Murdock's Founder's lecture and reading his article in the *CACNews* brought back a few memories I'd like to share. They seem very different but are unique to John's character. First, when John had heard that I had taken the initiative to host the hospitality suite in my room at the 1984 CAC seminar in Monterey, he was concerned enough to ask if the CAC could reimburse me for my expenses. I was impressed that he would have attended to this minor detail. I accepted his offer and the CAC reimbursed me for my expenses. Second, at the international meeting in Adelaide, Australia in 1990, John gave a keynote speech that had the entire audience listening in rapt attention. I looked around the amphitheater observing nearly three hundred experts riveted on John's presentation. It was impressive, both in terms of content and how well he captured our attention. Third, years later in 1995, I attended the 'Criteria for Identification' course he co-taught with Al Biasotti at CCI. It was a time consuming, labor intensive course that required the patience of Job during the five day course. John's calming influence and patient coaching made the course one of the highlights of my career. I admired Al, but the man was a taskmaster to John's steady professional demeanor. Thanks John for your many contributions.

—Raymond Davis



Ethical Dilemmas

DISCUSSION CORNER WITH CAROLYN GANNETT

Mistakes and Forgiveness

What matters is how mistakes are handled, not whether or not they occur

Scenario

Suzy discovers a technically incorrect statement in one of her old, finalized reports. She knows she must have it rectified, which includes reporting it to her supervisor. But, she agrees with her coworkers that the policies for dealing with such errors are unduly harsh—so much so that she is considering covering up the error.

Discussion

Of course, to be ethical Suzy must report her error. But, if the error management policies were made less harsh by incorporating forgiveness, they could pave the way to help her choose the ethical path. As it stands, a harsh policy is discouraging ethical conduct.

By “forgiveness” I mean removing punishment and revenge and supporting the errant individual as much as possible. Error management policies could be written and administered with the sole intent of identifying and correcting the causes of errors, with punishment and revenge being taken completely out of the equation. Granted, if the cause is identified to rest in the errant individual, then that must be dealt with: retraining, reassignment, or even termination may be unavoidable. But they could still be administered on the basis of supporting the individual as much as possible while still ensuring that the cause is rectified.

What role does forgiveness currently play in dealing with errors in forensic science? As an example, let’s look at some associations’ ethics documents that express a black-and-white attitude towards technically correct statements. There are several [see *CACNews*, 2013, 3rd quarter, pg 23]. They state, in short, that the analyst must make technically correct statements. Period. No ifs, ands, or buts. And . . . Boom! Suzy’s errant report instantly makes her unethical. Apparently, Suzy is forever doomed to wear a scarlet “U”.

Or, is she? Despite the black-and-white wording in such documents, could these associations still choose to not punish Suzy with sanctions (assuming she were reported to the association)?

To answer that, let’s look more closely at one of these ethics documents. That of the International Association of Bloodstain Pattern Analysts (IABPA) states:

A member shall make only technically correct statements. (2.1.1.)

But, the document also states:

Apparent infractions may be resolved interpersonally or otherwise within an agency or company. (Section 4, paragraph 1.)

So, while any technically incorrect statement is considered unethical, the analyst who erred need not be punished as long as other measures have corrected the problem. The stress is on correction of the error, not punishment of the individual.

The document continues:

However, a member shall report egregious or repeated violations of the Code of Ethics to the Association if other appropriate corrective measures (if pursued) have failed. (Section 4, paragraph 1.)

Note that this sentence is similar to CAC’s content:

Indeed, [bringing to the attention of the Association a violation of any of these ethical principles] 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. (V.F.)

Both documents say that if serious or repeated infractions have been corrected by other means, there is no need to inform the association. That is, there is no need to consider punishing the offending analyst. Again, the emphasis is on correction of the problem, not punishment of the individual.

Another ethics document that is black-and-white on the topic of technically correct statements is from the Mid-Atlantic Association of Forensic Scientists (MAAFS). It states:

Members should issue technically correct statements in all written or oral reports, testimony and public addresses. (1.3.5.)

And,

Members are bound by this code of Ethics to bring to the attention of the Association, any breach of ethics they have observed or have knowledge of in an effort to improve the reputation and integrity of the profession. (1.8.4.)

In other words, MAAFS requires their members to report all breaches of ethics to the association. Unlike the CAC and IABPA, there is no wording that excuses reporting a breach if it has been resolved.

Does that mean there is no room for forgiveness in associations like MAAFS? In short, no—there IS room. Enforcement policies typically allow for discussion of the reasons behind and the context of the transgression, which can bring to light mitigating circumstances, such as:

Management shortcomings that factored into the individual’s transgression. For example: Providing an inadequate training program, providing inadequate support for continuing education, providing inadequate policies or procedures, providing inadequate shielding of subordinates from pressures that can affect work quality, for example: A hostile work environment, a large backlog, aggressive attorneys or investigators, and political pressures.

Context of the analyst’s error. For example: Severe personal pressures, history of good (or bad) practice.

The individual is still solely responsible for his or her actions. But, mitigating circumstances can factor into decisions regarding which sanctions should be levied, if any.

The CAC adds another route of forgiveness. The Board may determine that the incident has been dealt with in a constructive manner, and details of the matter remain confidential.

The Board of Directors may therefore, evaluate the Report of Investigation and determine by a two-thirds vote that the incident(s) reported on has (have) been dealt with in a constructive manner and, as such, causes it not to require the application of additional procedures of the Enforcement of the Code of Ethics. It shall then issue a “Notice of Procedural Termination of the Allegation” signed by the President, to

the Accused and further consideration of the Allegations shall terminate forthwith. There shall be no right of appeal or of reconsideration by any person whomsoever from this decision. (3.A.2.c.)

This underscores the notion that correction of the problem is of paramount importance, rather than punishment of the individual.

Summary: In My Opinion...

The implications of forensic science necessitate that results always be technically correct, and this concept is echoed in some ethics documents. Management and practitioners would be wise to always work towards the goal of being mistake-free.

In reality, errors happen. Even the most conscientious analyst may commit an ethical breach, perhaps due to human error or due to lack of awareness of a nuance in an ethics document. When a transgression does occur, not all associations require that it be reported to them. When it is reported, correction of the error and its causes tends to take precedence over punishment of the individual by sanctions.

In order for a laboratory to operate on a daily basis with a goal of being mistake-free, mistakes must be ferretted out. The causes for the mistakes must be determined and rectified, or else mistakes could be repeated. Because causes can only be rectified if mistakes are made known, it is incumbent on managers to harbor an atmosphere that encourages the reporting of mistakes. Creation of such an atmosphere can be achieved if the underlying principle in error management policies is rectification of the cause, while salvaging as much as possible of the individual who erred. And, that is where forgiveness comes in. Punishment or revenge should never be a part of the process.

I'll leave you with a few questions to ponder.

As an analyst, do you feel your management deals too harshly with errors? Does it deal with errors and their causes ineffectively? If you answered "yes" to either question, would you, perhaps with other coworkers, be willing to approach management to propose developing a forgiving error management policy that would encourage the reporting of errors while effectively rectifying them and their causes?

As a manager, do your laboratory's error management policies really encourage, as much as possible, the reporting of errors? Here's the catch: as a manager, you may not be able to adequately answer this question. But your employees could. They are the ones who know best whether they are needlessly discouraged from reporting errors. But, they might not want to say this openly. So, why not put a receptacle in a discreet common area for submission of anonymous replies to this question. If you think this is unnecessary, bear in mind that I suggest it because analysts have volunteered to me that their management's harsh policies could discourage coworkers from reporting errors. Some of these analysts could be your employees. Do you really want to risk an unreported error figuratively blowing up in your face because your lab's policies, unbeknownst to you, discourage its reporting?

In closing, I encourage all forensic scientists to practice with the goal of being mistake-free. But, also realize that mistakes will happen. What matters is how mistakes are handled, not whether or not they occur.

Thanks go to Todd Weller for submitting the idea for this article.

Share your thoughts and dilemmas at www.ethicsforum.cacnews.org

FALL 2014 CAC/NWAFS WORKSHOP DESCRIPTIONS

DNA Workshop

This is a full day workshop intended to satisfy the Federal Quality Assurance continuing education requirement. The presentations will include a variety of topics including current and future technologies as well as case presentations.

Court Skills Workshop

Raymond Davis' "Courtroom Presentation of Evidence" course has been taught continuously since 1991. This 2-day workshop will offer students the skills for improving their communication delivery, understanding how jurors learn and remember, how to channel nervous energy for a more effective presentation, how to testify to one's truth, applying ethical standards during testimony, creating the ideal courtroom demeanor, how to dress for success, implementing trial strategies for increased comfort on the witness stand and finally a moot court exercise to be held in a courtroom.

Firearms Workshop

Chris Coleman notes this is a two-day workshop will cover current topics relevant to forensic firearms analysis. Speakers slated to present include Mr. Mike Haag and Tony Grissum.

Laboratory Lean Six Sigma: A Specialized Approach for Productivity Improvements in Forensic Testing Laboratories

Craig Nolde and Camilla Green from Sorenson Forensics introduce participants to the concepts of Lean Manufacturing and Six Sigma quality improvement. Lean Manufacturing, which was pioneered by the Toyota Production System. This is a management methodology that evaluates an organization's process in order to reduce and/or eliminate wasteful steps in the system. A Lean Laboratory is one focused on testing samples to deliver results in the most efficient way in terms of cost, quality and speed. The goal of a Lean Laboratory is to use less effort, fewer resources, and less time to test incoming samples. This workshop will present ideas and theory behind Lean Six Sigma (LSS) and highlight case studies on how these methods can be introduced into your crime laboratory. In addition, practical exercises and introductory tools will be provided to the participants. Lean Six Sigma methods can be applied to all aspects of a crime laboratory, for example evidence receiving, latent prints, firearms, DNA, drug chemistry and toxicology can all benefit from LSS.

cont'd on next page

Can a “Pair of Pairs” Help Tie Up Shoe Cases?

Helen R. Griffin

Ventura County Sheriff's Office Forensic Sciences Laboratory

Evidence that involves class only characteristics usually acquires greater significance when it occurs in evidence sets. This was discussed by Harold “Hal” Deadman in his articles on “Fiber Evidence and the Wayne Williams Trial”.¹ Homicides committed by multiple suspects can involve evidence transfers from the suspects to the scene that mimic a single suspect leaving multiple types of evidence. The question is whether the evidential value increases when there are multiple suspects and multiple evidence types and if so how much the value increases.

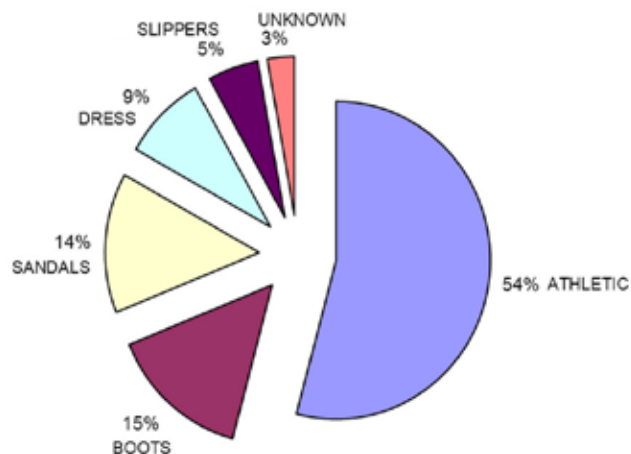
When multiple associated footwear impressions are recorded at crime scenes and the suspects own similar types of footwear, there is a question concerning how this association of evidence and suspects impacts the evidential value. The best example of this occurred in a 2003 homicide involving three suspects. There were two types of questioned footwear impressions in blood in the house; a third type of questioned footwear impression was found in the house as a latent print. All three types of impressions were found in dirt in the yard. One of the suspects was apprehended while wearing shoes later identified to the latent impression. He had a bag of clothing in his possession that included other shoes with outsoles similar in pattern and size to the impressions in blood. The three pairs of shoes belonged to the three associated suspects. The strength of the impression evidence was reported as though each type of impression was present in isolation. Did the report, therefore, accurately reflect the strength of the evidence?

Another multiple suspect homicide occurred at a convenience store. Footwear impressions similar in pattern and size to the outsoles of shoes worn by two suspects were found near the side wall in a freshly planted area. Weather conditions, the new landscaping, and the path made by the two types of impressions indicated that the impressions were associated with the crime. The shoes were Vans and Adidas brands in common sizes, so did not appear to present strong evidence of association. In order to learn more about the footwear worn by people in the area, a survey of the convenience store customers was conducted. The results of that survey are reported here.

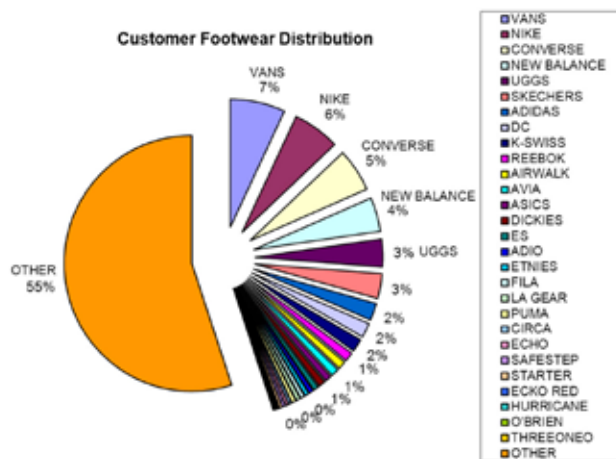
Each page of the survey requested: 1) the date, 2) the time of each encounter, 3) the sex of the individual, 4) the age range of the individual (adult, teen, or child), 5) the footwear type (athletic, dress, boot, sandal, slipper, or unknown), 6) the footwear brand, 7) the footwear model, 8) the footwear color, 9) the footwear size, and 10) miscellaneous information. The volunteers doing the survey were asked to note which people entered the store in groups of two or more. The survey was taken at various times of the day and on various days of the week throughout October, November, and December of 2009.

¹ Deadman, H.A., Fiber Evidence and the Wayne Williams Trial, FBI Law Enforcement Bulletin 1984, 53 (3), 12-20 and 53 (5), 10-19.

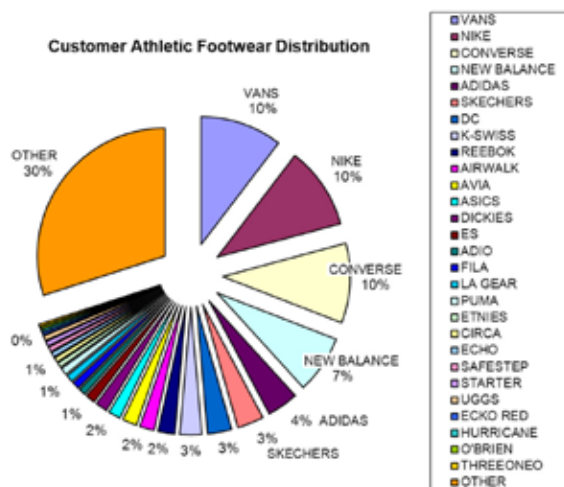
Customer Shoes Oct. to Dec. 2009



A total of 604 people were interviewed. Of these, 327 wore athletic shoes.



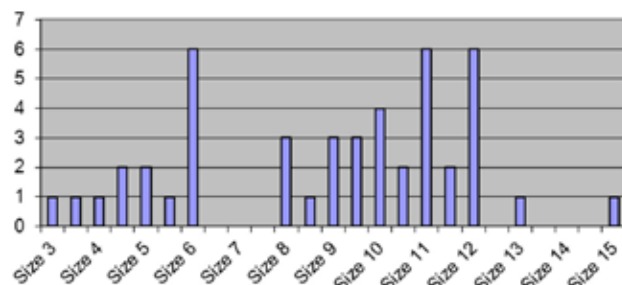
Of the 604 people interviewed, 42 wore Vans and 13 wore Adidas. Most of the data recorded did not contain model information, so the data is not broken down further.



The distribution of the 327 occurrences of athletic footwear recorded in the survey is illustrated.

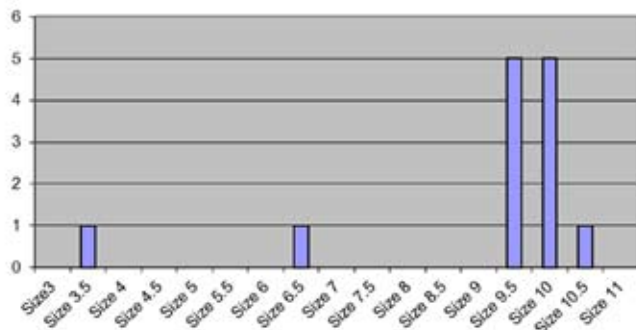
Workshops, *cont'd*

Size Distribution For Vans



To make the size distribution chart, all sizes from the survey were converted to their equivalent men's sizes. The size distribution chart includes Vans that were listed as athletic, sandals, and slippers.

Size Distribution For Adidas



To make the size distribution chart, all sizes from the survey were converted to their equivalent men's sizes. All Adidas in the survey were listed as athletic.

There were 33 groups in the people who were surveyed. Of these, 28 groups contained 2 people (there were also 3 groups of 3 people, 1 group of 4 people, and 1 group of 6 people).

In 2 groups of 2 people, both people wore Vans. No group contained Vans and Adidas.

Only 1 of the 33 groups included Adidas shoes—one person wore Adidas and one person wore Converse.

Of the 28 groups of 2 people, 12 groups had both people wearing athletic shoes. However, there were also 12 groups where one person wore an athletic shoe and the other person wore a different type of footwear.

It appears that finding two people at this store wearing a combination of Vans and Adidas is an uncommon event. Also, there is a strong tendency for convenience store customers to enter the store alone.

Case circumstances will dictate how evidence should be interpreted, but for this convenience store homicide the data shows that the impression evidence was much stronger than it would have been if only the Vans or only the Adidas impressions had been present.

Introduction to Management

James Tarver, Crime Laboratory Division Commander for the Washington State Patrol, provides opportunities for participants to explore and discuss some basic concepts surrounding management, leadership, and working toward desired results. Participants will define the "daily work" of leadership and discuss characteristics of effective leaders.

Drinking Study

The California Highway Patrol, coordinated by Nikolas Lemos (Northern Blood Alcohol Study Group Chair) will present an impairment study of subjects tested with Portable Evidentiary Breath Testing System (PEBTS) units and blood draws. Several drinkers will be required to routinely complete a variety of divided attention tasks, including field sobriety tests. There will be discussion regarding the alcohol level at which all individuals are impaired. The study will correlate blood and breath alcohol levels and results will be provided to all participants.

Practical Applications of UV, Visible & IR Lighting at the Crime Scene and in the Lab

Foster+Freeman, Ltd. aims to further the understanding and techniques used to examine crime scenes and evidence recovered to the lab. The focus is on the use of UV, Visible and IR LED based light sources for the search and recovery of body fluids, blood as well as latent prints, fibers, GSR particles and foot wear marks.

Annual Future Trends in Forensic DNA Technology Seminar Series

Amie Ingold from Thermo Fisher asks you to join your colleagues for the 14th Annual Future Trends in Forensic DNA Technology Seminar Series. This informative session will focus on tools, methods, and next-generation solutions that improve efficiency and performance across the human identification workflow. Topics include: "New Punching Systems for Forensic DNA Databasing", "Quantifiler® HP and Trio Quantification Kits", "HID Real-Time PCR Analysis Software v1.2", "The Yfiler™ Plus Kit Development and Application", "Upgrading the Workflow", "Enhancing Information Recovery from Forensic Evidence", "Get More Information From Your Forensic Samples Using New Next Generation Sequencing Solutions" and "Interesting Cases."

Burning Questions in Fire Debris Analysis

Speakers include John DeHaan of Fire-Ex Forensics, Inc., John White of Fire Cause Analysis, David Brien of EFI Global, Inc., and ATF chemists. They'll cover topics ranging from new portable analytical equipment and novel ignitable liquids, matrices, and analyses. Canine handlers will be discussing everything from training methods to evidence collection, complete with numerous live demonstrations ranging from simple scent discrimination to a lineup! Attendees will also learn about current research ranging from spontaneous heating to mitigation of microbial degradation to contamination of clothing due to improper packaging.

Stand and Deliver

by Raymond J. Davis, CourtSkills

Researches have determined that the human brain begins to function at the moment of birth and strangely mal-functions the moment some people stand to give a speech.

Expert witnesses know first-hand the anxieties accompanying sworn testimony, presenting a paper or lecturing before one's peers. Psychologists say that most men's number one fear is the fear of public speaking and for a woman it's death by fire but quickly followed by public speaking. In fact, a man giving a eulogy at his friend's funeral would rather be the one in the casket. Women don't have the same anxiety knowing they're not apt to catch fire any time soon.



These thoughts are even more pronounced as you proceed to the podium or witness stand to expose yourself to what may seem like self-imposed torture.

How one confronts this most vexing yet common problem of public speaking is the purpose of this paper. I have learned over the past thirty years that there are three fundamental things that will help you overcome your natural fear of public speaking. The first deals with identifying your fear and how to manage it, the second is to find a method for organizing your thoughts without having to think while speaking and finally, finding a way to deal with the nervous energy that seems to build walking to the front of the room. Sounds simple enough—three fundamental things that will change how you perform as a public speaker.

Here is a short list of some common fears I've heard from many people:

—*I'm afraid that I'll say something stupid or inappropriate.*

—*I'm afraid I'll look foolish or unprepared.*

—*I'm afraid that I'll run out of material before I run out of time.*

—*I'm afraid that I'll run out of time before I run out of material.
(Better to be in the latter situation rather than in the former)*

—*I'm not that interesting and people won't pay attention.*

—*They won't approve of my power point presentation or visuals aids thinking I'm incompetent.*

And their greatest concern is: *What will people think of me and will they like my presentation?*

Some or all of those thoughts may be racing through your mind as you contemplate giving a presentation, or providing expert testimony or undertaking a job or promotional interview. These thoughts are even more pronounced as you proceed to the podium or witness stand to expose yourself to what may seem like self-imposed torture. It's important to identify the fear and move boldly through it. Get feedback from friends and colleagues who can help you get beyond this impediment to successful public speaking. Knowing your audience and what they expect from you will help calm your nerves.

One of the most important lessons I've learned is that the audience is pulling for us to succeed. They have a vested interest in the material being presented as well as how the speaker is performing. After all, who wants to listen to someone rambling through a boring power point presentation and then failing to complete it within the allotted time? It doesn't take a leap of faith to know that the audience wants you to do well. An added bonus is they're not the one giving the speech and will give you all the support and encouragement you'll need to deliver a captivating presentation.

Audiences often give a pass on the speaker's level of nervousness due to the stressful nature of public speaking knowing the challenges the speaker faces. If you find yourself misspeaking or fumbling for words or getting lost during your presentation they will be patiently tolerant granting you time to compose yourself. Most times your topic is either so interesting or so timely that they will not be focused on the presentation style itself. If you were to ask them why they came to your presentation their usual response is, 'To learn something new' rather than to see how well you presented the material. Remember, it's the story and not the story teller that's important to your listener.

One strategy I have employed is to make sure my presentation gets off to a perfect start. I practice the first two or three minutes until it's flawless. After that everything seems to settle into a nice rhythm not worrying how the rest of the presentation will flow. This strategy comes from a quote by the Roman statesman Horace who said, "Well begun is half completed." Don't waste valuable time and energy memorizing the entire presentation. Your presentation will seem more natural and relaxed. For expert witnesses, the stating of their qualifications will provide the earliest opportunity to set the tone for the rest of their testimony.

When I confronted my reasons for not speaking in public, I realized that my audience didn't share those same concerns. That one fact alone, more than anything else helped me to relax and enjoy standing at the podium. As public speakers we want to leave our audience with the feeling that they got more than they expected. And most important, that they

came away from the presentation or testimony with useful and timely information. That's precisely the strategy I employed before going to court or speaking at scientific symposia. Again, I believed that my audience would be supportive during my presentation and I have used that goodwill to thrive as a public speaker. There is no greater feeling than to see approving smiles from your audience held in rapt attention by your message.

During a DUI trial once when I vainly searched for an answer, a juror stood and provided the answer for me. The simple question caught me off guard allowing the juror to offer the correct answer. I had the good sense to agree with the man to a round of laughter. This is one of many examples I have experienced over the course of my career where the audience has assisted me during my presentations extricating me from a difficult moment. Jurors naturally believe expert witnesses unless we give them a reason not to. My advice, never give them a reason to lose faith in our expertise.

At a recent CAC seminar, I had said, December and everyone shouted back, September. I have experienced many episodes where the audience helped me with both questions and answers, especially in my courtroom training courses. When we rise to speak our audience is ready to believe and assist us. Give them every reason to continue helping you. Remember, a believable witness is a credible witness. And a credible witness will make for a more compelling and memorable witness.

The second thing that helps immeasurably was finding a way to speak without having to remember all the material, especially, during the fast pace of a contentious jury trial. It's a challenge to be an attentive listener while trying to think of the correct answer. I've found that both suffer if performed simultaneously. Haven't you marveled at how well the contestants on the TV game show *Jeopardy* can think and respond so quickly and yet appear so calm? I believe that's a talent few possess. Twenty five years ago I learned a technique for organizing my thoughts and ideas that helped immensely during courtroom testimony, or presenting a key note speech or performing the role of an emcee. That technique is called "Mind Mapping" and it has allowed me to give presentations without having to think ahead of time trying to remember the next topic.

There's nothing more embarrassing than getting lost and asking your audience, "Now, where was I?" The Mind Mapping technique takes the pressure off memorization while making you appear brilliant. In that situation it can feel like being in a pressure cooker. The technique is very visual, fast, comprehensive and best of all, easy to use. A book written by Richard J. Konieczka entitled, "The 59 Second Mind Map" provides the requisite information to employ this practical technique. Since 1991, I have incorporated Mind Mapping as an integral part of the Courtroom Presentation of Evidence® course.

The third thing that has to be overcome is dealing with the nervous energy that accompanies most speakers to the podium or witness stand. Recall your experience being a member of the audience until it was your time to speak. Didn't you feel comfortable sitting there listening to the speaker ahead of you?

Then suddenly something changed when it was your turn to speak. My question to you is, "Why did you lose that great feeling?" Take it with you as you head to the front of the room. Over the past 100 years experts have been advised to, 'Just be calm.' 'Don't be nervous.' 'Just tell the truth.' 'Don't worry.' My favorite is, 'Remember, you're not the one on trial.'

This type of advice has never provided much comfort nor has it been much help for others whom I have trained over the years. I have learned a few techniques that have allowed me to channel my nervous energy through my voice, eye contact and gestures. By harnessing this raw energy, I have found that my presentations were much more effective creating a meaningful presentation. And here's the real secret: Don't tell your audience that you're nervous. They won't know unless you tell them. In fact, most people only display about 5-10% of their nervousness whereas the speaker feels it's closer to 90%. Be confident in the knowledge that the audience is completely unaware of just how nervous or anxious you may be.

Summarizing, the greatest fears held by the public speaker are not the same concerns held by the audience. They respond to and appreciate a well prepared and well-delivered presentation. Most speakers and experts often realize that their worst fears were unfounded after employing the above strategies. This fear keeps most people from presenting their work and ideas to others. Think of the missed opportunities to share one's knowledge due to the fear of public speaking. Appearing relaxed and confident by channeling your nervous energy will provide your audience the opportunity to focus on the material and not on you, the speaker.

In fact, that is precisely the secret that most actors rely upon when they appear on stage. Many have reported severe cases of stage fright recalling George C. Scott's solution. "I throw up at the first opportunity." It's not just their talent that gets them to perform but knowing that it's the performance the audience has come to see. The actor Robert DeNiro is surprisingly a poor interview guest because he's uncomfortable when not playing a movie role that deflects the attention away from him personally.

As a public speaker or as a witness you have a role to play. Your audience (jury) has come to see the performance and not the person playing that role. It takes a small leap of faith to embrace this principle. By creating this small separation between you and your message it provides a measureable degree of comfort.

Now you know three basic truths about public speaking: First that it's perfectly OK to be nervous and that your audience will be in your corner providing all the support and encouragement you'll require. Second, by using the Mind Mapping technique you won't have to think while you're speaking. This allows you the opportunity to put more into your presentation without having to think ahead. And third, by channeling your nervous energy, through your voice, eye contact and gestures you'll create a more effective and powerful presentation. Following this basic plan will assist you in those challenging times when you're called upon to Stand and Deliver.

Dander, Death, & DNA

Bob Blackledge

Lately I've become interested in bird dander. As a result, I did a Google search and came across a strange article. The article was so strange I'm surprised I even kept reading. However, the article suggested to me an idea involving DNA (not my area of specialization). I knew my idea was not practical by today's routine forensic DNA methodology. However, considering the rate of advancing technology I felt it quite likely to be possible in the near future.

I ran my idea by a number of highly-regarded forensic scientists. If it could actually be worked out it would result in a significant forensic science advance and would either identify or exclude a suspect in many cases of sexual assault/homicide. All save one were not encouraging and replied with how difficult it would be to accomplish. However, their reasoning assumed present-day DNA methodology and its limitations. Most reading this likely did not study and then enter the criminalistics field prior to the switch from Alec Jeffreys' RFLP to methods that amplified the DNA present for analysis via PCR. For those geezers who go back that far, can you honestly say that you (as well as your forensic laboratory) anticipated the development of an advance akin to PCR?

It is only through dumb luck that the sample collection methods (swabs) and evidence preservation and storage, although originally collected with other analysis methods in mind were also viable for the extraction of minute quantities of DNA and its subsequent amplification by PCR. Without that happy accident, the people in the Innocence Project would be out looking for work!

To me it's ironic that the more prestigious and experienced one is in their field of specialization, the less able they are to envision totally new approaches, and the more contempt they have for both the individuals and the ideas advanced by newbies. Imagine what would have happened if strapped for funds, Thomas Edison had been forced to prepare a grant proposal for the development of the electric light bulb and submit it for review to the likes of NSF? Physical chemist reviewers would have sneered and guffawed in disdain. "So your preliminary trials with different filament materials did produce light, but only for brief periods before the filament was consumed and burnt out? Of course, you dummy! Did you sleep through Physical Chemistry? Do you simply not get that the brighter the light the quicker the filament will be consumed, and if you stumble upon a filament that is not rapidly consumed its light output at any given instant will be feeble?"

In those sexual assault/homicide cases where there is prolonged intimate contact between assailant and victim, there is a type of transferred evidence that is not being collected. Why not? Because with today's technology (or at least that used by forensic scientists) that evidence has no value. I hope that when I tell you what this potential evidence is you will keep on reading instead of just dismissing it. Also, I hope you will agree that today we should be proactive and collect and preserve in selected homicide cases a type of evidence that although of no value today, with advancing technology will often be the difference between guilt and innocence.

For those individuals incapable of anticipating the future (whether scientists, lawyers, or lay people) this is where it gets weird. If during the course of a struggle that results in the death of an individual and involves more than just momen-

tary contact between the victim and the assailant, it's logical to assume that the last few breathes taken by the victim will contain a comparatively high percentage of dander (dandruff) originating from the assailant. Since at death the dynamic process of exchange of air stops, the nasal passages of the deceased should be comparatively rich (trapped by cilia, mucous, etc.) in dander from the assailant. Could this dander be recovered (nasal swabs or lavage might be one method), DNA recovered and amplified, and typed?

In 1998 in the *Journal of Forensic Sciences* there was an article titled: "Dandruff as a Potential Source of DNA in Forensic Casework", *J. For. Sci.*, 1998:43(4):901-902. Then in 2002 in the FBI's *Forensic Science Communications*, Oct. 2002, Vol. 4 No. 2 was the article, "Trace Evidence Scrapings: A Valuable Source of DNA?"

Below is the website for the article. However, it is long and rambling, so I'll just quote the important part.

www.willzuzak.ca/lp/martin/martin27.html

People with Microscopes Understand that we are all Cannibals

Each person lives within what scientists who study particulate matter call his own "personal cloud" composed primarily of dust that had earlier settled on his clothing, lint from his own clothing, and flakes shed by his own skin. Each person sheds in the order of 50 million skin flakes per day, and inhales around 700,000 of them back into his own body. Most of these skin flakes settle, and end up blanketing a person's environment. Some settle on his own food and drink, and so he ends up eating and drinking some of his own skin flakes as well.

People near each other have overlapping personal clouds, and inhale each other's skin flakes. People's skin flakes settle inside the mouths of nearby people, or on their food and drink, and so people can be said to eat each other's skin flakes. [If, at the next CAC Seminar you feel I'm standing too close, you'll know why!]

At least a billion and a half pieces of dust enter your nose and mouth every day, if you breathe exceptionally clean air. Most people inhale many times that number.

(From: Holmes, H., *The Secret Life of Dust: From the Cosmos to the Kitchen Counter, the Big Consequences of Little Things*, John Wiley & Sons, Hoboken, New Jersey, 2001, p. 133.)

The forensic scientists I've discussed this with so far, all point out that the DNA from the victim would be so much in excess and would provide an impossibly high background. We need to ask ourselves in what ways would the DNA extracted from the dandruff from the attacker differ from the various DNA sources present in the sample in far greater abundance? Clearly, this is a needle in a haystack problem, and with a strong magnet it shouldn't be too hard to find that needle!

What if we made the assumption that in the majority of sexual assault/homicide cases where there had been prolonged intimate contact between the assailant and the victim, the sexes of the two would be different? In that case one DNA sample would have the XX sex chromosome (female) and the other the XY sex chromosome (male).

How can we take advantage of that difference? Perhaps we could come up with a chemical reaction that would add one or more groups (add mass to the molecule) but could only take place in the XY sex chromosome region? Now we should

be able to use this mass difference to come up with a separation method. But let's think outside the box; why should we restrict our thoughts to just the XY chromosome region? Are there not other regions of DNA that are virtually only present in male DNA? Although the song from Annie Get Your Gun, goes "I can do anything you can do better", there are some things that only males can do. It's not my area, but why not consider proteins involving the prostate or gonads?

After coming up with this idea I serendipitously came across a recent article, "The nucleic acid revolution continues – will forensic biology become forensic molecular biology?", Peter Gunn, Simon Walsh and Claude Roux, published in *Frontiers in Genetics*, published 05 March 2014, doi: 10.3389/fgene.2014.00044. I highly recommend it. It may be found online at:

www.researchgate.net/publication/260095552_The_nucleic_acid_revolution_continues__will_forensic_biology_become_forensic_molecular_biology_

A quote from the article: "The choice of non-phenotypic markers for forensic analysis was driven primarily by their polymorphic diversity, coupled with the ethically acceptable lack of personal or medical information which they convey." And quoting from a previously published article: "MicroRNAs (miRNAs) are non-protein coding molecules with important regulatory functions; many have tissue-specific expression patterns. Their very small size in principle makes them less prone to degradation processes." To come up with a method that could extract from nasal swabs or rinsings from the victim the DNA present in dandruff from the assailant, we need to start from square one and progress by whatever means will lead us to our goal rather than be shackled by past decisions made involving DNA profiling. Once a method is found that works reliably we can then consider if to protect personal or medical information it might be necessary to first obtain a court order.

I do have some ideas as far as how DNA from the assailant's dandruff could be extracted from a mixture that had an overwhelming predominance of DNA from the victim. I won't go into the details, but rather than rely on a separation based on electrophoresis I would use advanced methods of mass spectrometry. An enzyme method would be used to cut the DNA up into smaller fragments. The fragments we would be interested in would have areas unique to male DNA and would also be hypervariable. At these male DNA unique locations we would find chemical reactions that would only work at those locations and would result in either increasing the fragments' mass and/or attaching a magnetic functionality.

Quoting again from the article in *Frontiers in Genetics*: "Will these or other technologies make their way into the crime lab? Possibly not; they are specialized, and are not likely to be called up often enough to warrant the financial and logistical commitment that would be required of an operational forensic lab. But where the expertise to undertake these tests exists in other research settings such as universities, then we foresee the day when these academics will be called upon to lend their expertise to forensic science investigations."

So here's a question for you. Are you going to be proactive and urge in victim autopsies that fit this category that samples of the victim's nasal contents be collected and preserved for possible future examination, or will you just shrug and mumble "that's not my job"?



Read



All



About it.



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Call For Proposals

The A. Reed and Virginia McLaughlin Endowment of the California Association of Criminalists is beginning its annual cycle of grant funding. During 2014-2015, grants for training, scholarships and research totaled over \$18,000. Applications and requests are now being accepted for 2015-2016 funding.

The Training and Resources (T&R) Committee Chair must receive applications for training funds by Friday, February 20, 2015. (See Section I below for specific application information).

The Endowment Committee Chair must receive requests for all scholarships or research funds by Friday, March 20, 2015 for consideration. (See Sections II & III below for specific information).

Specific Requirements for Proposals

I. Training

A. General

Requests to sponsor training must be submitted earlier than other requests so that the Training and Resources Committee can review them and coordinate with other CAC training efforts. The T&R Committee shall prioritize these requests where necessary and shall consider how the requested training fits into the overall training needs/desires of CAC members. The T&R Committee shall forward ALL requests to sponsor training together with their recommendations to the Endowment Committee for their consideration.

B. Request Format

The two-page Application for Training Funding should be completed. This application is available on the CAC website (www.cacnews.org) and requests the following:

1. Class title, outline and description of ownership (public or privately owned).
2. Information (curriculum vitae) on instructors.
3. Class logistics: minimum and maximum size, limitations and location.
4. Class coordinator/contact person.
5. Student interest/demand supported by T&R Survey and/or the number of applications on file.

2015—2016 McLaughlin Endowment Funding

6. Course budget including supplies, texts or handouts, instructor fees, travel/per diem, and site costs. Amortize material fees for # of CAC member/class.
7. Student fees.

Send completed Application for Training Funding forms to the T&R Committee Chair by Friday, February 20, 2015.

II. Scholarships

A. General

The A. Reed and Virginia McLaughlin Endowment offers scholarships through academic institutions rather than directly to students. Proposals from academic institutions shall set forth their general criteria for student scholarship selection. The academic institution shall be responsible for selection of student recipients of such scholarships and shall report awardees and amounts to the Endowment. Students receiving funds must be members of, or applicants to, the CAC. Students who are interested should request application information directly from their academic program coordinator.

B. Request Format

Proposals for scholarships must contain both a summary and detail section containing a general description of the academic program, its goals, and information on how the proposed funds would be used. For example, will funds be used for tuition and fee relief, stipendiary support, to underwrite student research, etc? The detailed description should include information on recipient selection criteria and who will perform the selection. Scholarship fund administrators must be named, including who will be responsible for submitting the mandatory annual report of activities to the CAC.

C. Reporting of Distributions

The Academic Program Coordinator must provide a full accounting of the recipients and how they meet the minimum criteria.

D. Refund of Unused Endowment Funds

Any remaining unused portion of the endowment funding shall be returned to the Endowment fund via the CAC Treasurer.

III. Technical Development and Research

A. General

The implementation of new and more efficient technical procedures related to forensic science requires the investment of time, ingenuity, and resources by those working in the field. The development of new techniques and technology can benefit the profession by one or more of the following:

1. Permitting the development of new or additional information from the analysis of certain types of evidence.
2. Implementing a mechanism for the analysis of new forms of evidence.
3. Improving the reliability of methods already in use.
4. Increasing sample throughput by improving efficiency.

Resources permitting, the CAC encourages technical development or research for the benefit of the profession. The A. Reed and Virginia McLaughlin Endowment does not generally fund professional level salary for researchers. Incidental funds for students assisting in research projects will be considered. However, neither the CAC nor the Endowment shall act as an employer.

B. Request Format

Requests for funding for technical development or research should contain the following:

1. Project name and purpose.
2. Name(s) and curriculum vitae for each researcher.
3. A brief description or outline of the project.
4. Information on the project facilities, equipment and supplies needed.
5. Information on the project site, including permission to use the site for this purpose where applicable.
6. Information on the adequacy of available space, safety planning, equipment and supplies.
7. Agreement for responsibility for disposal of products of research, including but not limited to chemicals, biochemicals, biologicals, and hazardous waste.
8. Project budget.
9. Time line and projected completion date of project.

C. Progress Reports

Progress reports will be required in writing, the frequency to be determined by the Endowment Committee. The recipient must prepare a final project report, including a summary of results and conclusions. As a condition of funding, products of research must be submitted to:

1. CAC Seminar Technical Program
Chairperson with intent to present research at a CAC seminar; or
2. CAC Editorial Secretary for publication in a journal or newsletter as appropriate.

When problems occur or results are not as expected, funding recipients are expected to use good judgment in reevaluating the course and goals of the project, and in modifying the project approach as necessary to maximize the project results. The project should be terminated when it is determined that the value of the project is minimal. In addition, funding may be terminated by the Endowment Committee if progress is inadequate.

The T&R Chair must receive all proposals for *training* by **Friday, February 20, 2015.**

Send proposals to:

Joseph Cavaleri
Los Angeles County Sheriff's Crime Lab
1800 Paseo Rancho Castilla
Los Angeles, CA 90032
Tel: (323) 267-6178; Fax: (323) 276-1965
jicavale@lasd.org

The Endowment Committee Chair must receive all proposals for *scholarships or research* by **Friday, March 20, 2015.**

Send proposals to:

Nessa Rosenbaum
San Bernardino County Sheriff's Dept.,
Scientific Investigations Division
200 South Lena Road
San Bernardino, CA 92415-0056
Tel: (909) 387-2200; Fax: (909) 387-2688
nrosenbaum@sbcscd.org

PLEASE NOTE:

Preference will be given to CAC members and California Universities/Colleges

Applications that miss the deadline dates will not qualify for consideration.

If you submit a proposal and do not receive confirmation from the Endowment Committee that it has been received, call the Chairperson before March 20th, 2015.



"Conny" Laid to Rest

Sue Brockbank asked me to look for old photos of Joe Hourigan for his retirement party. In my rooting around I discovered one of a memorable tour in 1993. (*above, left*) That year, CAC seminar attendees were treated to a tour of the *USS Constellation*, then moored in San Diego. Flash-forward to August, 2014, and we say goodbye to the "Conny" as she is towed out of Bremerton to begin a 6-month, 16,000-mile journey to a ship dismantler in Texas. Because the carrier is too broad in the beam for the Panama Canal she'll have go "round the Horn."

John Houde

Legal Profession's Fear & Loathing of Science

From the written opinion of Circuit Judge Richard Posner, US Court of Appeals for the Seventh Circuit in the case of *Jackson v. Pollion*. "...discomfort of the legal profession, including the judiciary, with science and technology is not a new phenomenon. Innumerable are the lawyers who explain that they picked law over a technical field because they have a 'math block.'" He also noted cause for concern at the extraordinary rate that scientific or technological advances featured in litigation. "The legal profession," Posner concluded, "must get over its fear and loathing of science."

*From: theanalyticalscientist.com
Submitted by Bob Blackledge.*



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Meghan Mannion-Gray



CA DOJ Jan Bashinski Lab
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Alice Hilker



San Mateo Co. Sheriff's Lab
50 Tower Rd.
San Mateo, CA 94402
(650) 312-5540
northregion@cacnews.org

Regional Director: (South)
Mey Tann



CA DOJ Riverside
7425 Mission Blvd.
Riverside, CA 92509
(951) 361-5000
southregion@cacnews.org

Membership Secretary:
Michelle Halsing



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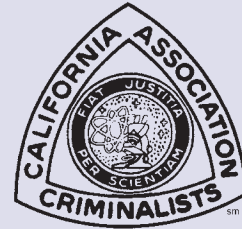


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Eric Halsing



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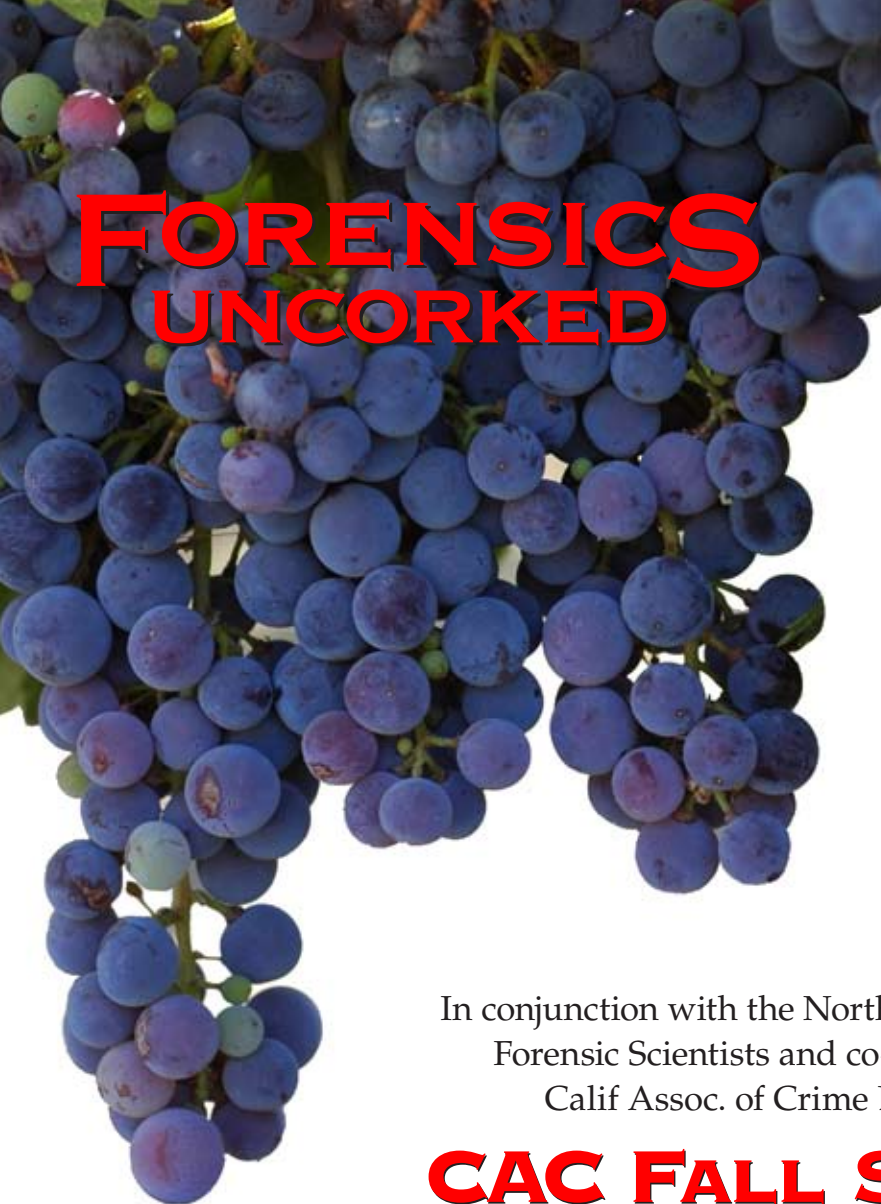
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