

Newsletter of the California Association of Criminalists • SPRING 1993

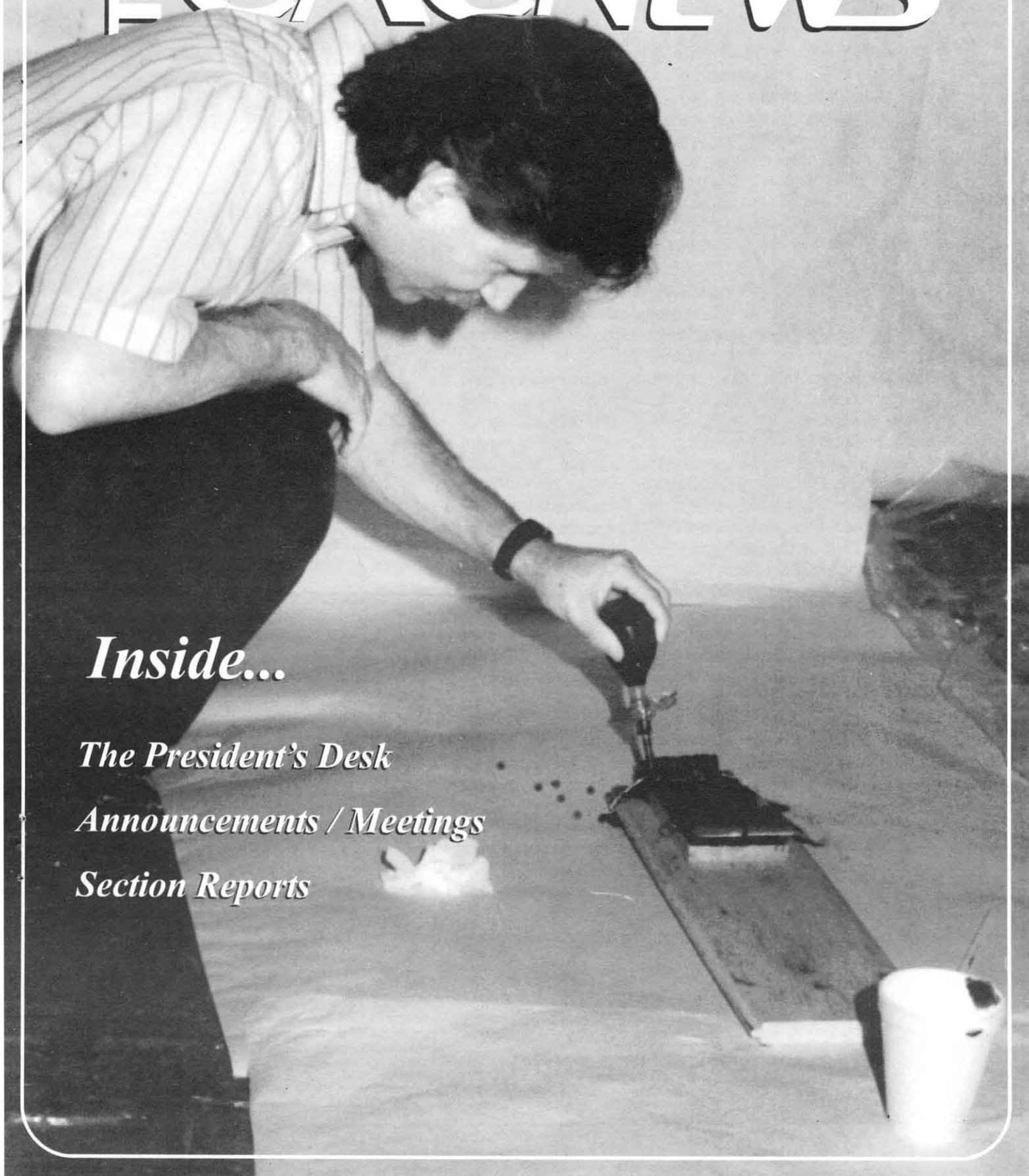
# The CACNews

*Inside...*

*The President's Desk*

*Announcements / Meetings*

*Section Reports*



# The President's Desk



As a president's term ends, it is natural to reflect back on the year's activities to determine if goals were met, old projects completed and new projects started. In other words, was anything accomplished and is the Association better off today than it was twelve months ago.

As I look back over the last twelve months I am pleased to see that, with the help of many dedicated people, most of what we wanted to accomplish did in fact occur:

The Reed and Virginia McLaughlin Endowment has continued to grow and the process for equitable distribution of the endowment funds is being refined. The newsletter is constantly being refined and improved, with a more readable and professional layout and new regular features. The reopening of the discussion on the maintaining the Journal as the official organ of the CAC. The transition of the certification process from the CAC to the ABC. The expansion of the Training and Resources Committee's capabilities with video taping and copying equipment. Expansion of our membership through active recruitment. Movement toward improving the relationship between criminalists and the Department of Health Services. It was not a year of groundbreaking new developments or revolutionary changes, but rather a time of evolution and growth.

One of the new features that we are trying to incorporate into the CAC News is the Local Reporter. For this section, we are looking for people that are willing to submit highlights of what is happening in their laboratory or region. This issue has an example of what I'm talking about. I hope there is enough interest in this idea to keep it going. Our Association covers a very large area and it helps to hear about the human side of what is going on with our peers. It has been a very rewarding year and, as I have said before, I strongly recommend getting involved in the CAC. As president I have seen many hard working people accomplish many important tasks, however there is constantly more to do, and I am looking forward to continuing my commitment and involvement in CAC activities. I would like to thank everyone that helped move the California Association of Criminalists forward. It takes a high level of professionalism and plenty of hard work to maintain the quality and reputation of the CAC.

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Ventura Sheriff's Lab  
Layout/Design

The CACNews is published four times a year (January, April, July, and October) by the California Association of Criminalists, a non-profit professional society dedicated to the furtherance of forensic science in both the public and private sectors ©1993.

## **Notice to Contributors**

This newsletter publishes material of interest to its readers and is pleased to receive manuscripts from potential authors. Meeting announcements, employment opportunities, course announcements, etc. are also solicited. Advertisements are also accepted, although a fee is charged for their inclusion in The CAC news. The acceptance of any advertisement is at the sole discretion of the Editorial Secretary.

Because of the computerized typesetting employed in The CAC News, the Editorial Secretary requests that where possible, submissions to the News be made in the form of IBM or MS-DOS compatible files on 5.25 or 3.5 inch floppy disks (high or low density). It is preferred that text files from word processors be saved as ASCII files without formatting codes, e.g. bold, italic, etc. An accompanying hardcopy of the file may be submitted along with the disk to illustrate the author's preference for special emphasis.

Graphics, sketches, photographs, etc. can also be placed into articles. Please contact the Editorial Secretary for details. FAX submissions are also acceptable. The FAX number for the Editorial Secretary is (408) 298-7501. The deadlines for submissions to The CAC News are: December 15, March 15, June 15 and September 15.



## NORTHWEST ASSOCIATION OF FORENSIC SCIENTISTS

*April 27-30, 1993*

The Spring 1993 Meeting of the NWAFFS will be held at the Inn of the Seventh Mountain in Bend, Oregon. Workshops and seminars will be held on the 27th and 28th. Technical papers will be presented on the 29th and 30th. For further information, please contact: Mike Howard, Bend Forensic Laboratory, Oregon State Police, 63319 Highway 20 West, Bend, Oregon 97701, (503) 388-6150.

## MID-ATLANTIC ASSOCIATION OF FORENSIC SCIENTISTS

*May 19-21, 1993*

The MAAFFS 1993 Annual Meeting will be held at the Lord Baltimore Hotel in Baltimore, Maryland. For further information, please contact: Isabel Conley, c/o Maryland State Police, 9758 Ocean Gateway, Berlin, Maryland 21811, (410) 641-9039.

## CALIFORNIA ASSOCIATION OF CRIMINALISTS

*May 20-22, 1993*

The Spring 1993 Meeting of the CAC will be held at the Berkeley Marina Marriott in Berkeley, California. For further information, please contact: Jan Bashinski, DOJ-DNA Lab, 626 Bancroft Way, Berkeley, California 94710, (510) 540-2434.

## Course Offerings

### Midwest Association of Forensic Scientists

#### "Courtroom Testimony Workshop"

June 7—10, 1993

Best Western Continental Inn

Miamisburg, Ohio (513) 866-5500 (near Dayton)

Dan Bergman & Anne Rummel Manly, Instructors

\$230 Registration (includes bkfst, lunch)

Rooms \$35 single; \$39 double. +tax

Contact Dan Bergman, Minnesota Forensic Sci. Lab.

(612) 642-0700

Deadline: April 30, 1993

#### "Headlight Examination Workshop"

June 7—8, 1993

Best Western Continental Inn

Miamisburg, Ohio (513) 866-5500 (near Dayton)

Ken Baker, Northwestern University Traffic Inst., Instructor

\$525 (incl. tuition, materials, brkfst, lunch)

Rooms \$35 single; \$39 double. +tax

Contact Cindy B. Omlor, Miami Valley Regional Crime Lab

(513) 225-4990

Deadline: April 30, 1993

## FORENSIC ARCHAEOLOGY SEMINAR

*May 28-29, 1993*

The Department of Anthropology and Criminal Justice at Mercyhurst College, Erie, Pennsylvania will present a two-day seminar in forensic Archaeology on May 28-29. The seminar will expose participants to state-of-the-art techniques employed by forensic anthropologists in the search and recovery of unlocated human remains. topics to be covered will include: systematic search and site mapping techniques in various terrains, forensic archaeological and house fire excavation techniques, collection of entomological specimens and forensic osteological and odontological analyses. For further information, please contact: Dennis D. Dirkmaat, Ph.D., Department of Anthropology, Mercyhurst College, Glenwood Hills, Erie, PA 16546, (814) 824-2105.

## CANADIAN SOCIETY OF FORENSIC SCIENCE

*September 8-12, 1993*

The 40th Anniversary and Annual Meeting of the CSFS will be held in Winnipeg, Manitoba, Canada. For further information, please contact: Ron Hrynychuk, c/o RCMP Forensic Laboratory, 621 Academy Road, Winnipeg, Manitoba, Canada R3N 0E7, (204) 983-6399.

## NORTHWEST ASSOCIATION OF FORENSIC SCIENTISTS

*October 19-22, 1993*

The Fall 1993 Meeting of the NWAFFS will be held at the Owyhee Plaza Hotel in Boise, Idaho. For further information, please contact: Donna I. Shepherdson, Bureau of Forensic Services, 2220 Old Penitentiary Road, Boise, Idaho 83712, (208) 334-2231.



Steve Schliebe spatters blood at the Fall 1992 Seminar.

Kelly Wooten

From an editorial published in the *Sacramento Bee*, Dec. 18, 1991  
Peter Schrag, Editorial Page Editor.

## Quashing the DNA Debate

Prosecutors are beginning to make wide use of DNA Fingerprinting as evidence in criminal cases. The DNA test, which relies on the fact that individuals have a distinct pattern in the molecules that make up their genetic material, has proved a useful tool in establishing the identity of wrongdoers from materials such as blood and semen. It's so useful, in fact, that some prosecutors have recently tried to intimidate scientists who've raised questions about how DNA fingerprinting is carried out in practice.

Last fall, Dr. Daniel Hartl of Washington University in St. Louis and Dr. Richard Lewontin of Harvard submitted a paper to the journal *Science* disputing the standard statistical methods used to calculate the accuracy of identifications made through DNA fingerprinting. A few weeks later, Hartl received a telephone call from James Wooley, a prosecutor with the Justice Department's Strike Force, pressuring him to withdraw the paper because it would be a "disservice" to the justice system. "It was a stunning, chilling conversation," Hartl told the *New York Times*.

Hartl did not withdraw the paper, which was accepted for publication. But in October, before it was published, copies were circulated at a convention of genetic scientists, where it was the subject of discussion and controversy. One of the strongest critics was Dr. C. Thomas Caskey of Baylor College, a member of *Science*'s board of editors, who has a \$200,000 grant from the Justice Department to study DNA fingerprinting and who licenses his DNA fingerprinting methods to a private firm. In response, *Science*'s editor asked Hartl and Lewontin to soften their conclusions and took the highly unusual step of soliciting a rebuttal article, which was recently published in the same issue.

Hartl and Lewontin are not the only scientists who've been pressured by prosecutors for questioning the accuracy of the techniques in DNA fingerprinting. Scientists have been called by the FBI and asked not to testify for the defense in criminal trials. A British geneticist in Laguna Beach testifying about DNA fingerprinting was asked by an FBI lawyer about his visa status and wrongly accused of fraudulent billing. When a scientist from UC-Irvine submitted to *Science* a critique of a favorable article on DNA fingerprinting, an Alameda County assistant district attorney wrote to the journal's editors disparaging the scientist and suggesting the names of experts to review the paper.

Prosecutors' interest in the scientific debate about DNA testing is easy to understand. Under the legal rules in most states, such forensic techniques are admissible as evidence only when they are generally accepted by scientists as valid. But when their involvement goes beyond interest to pressuring scientists and journals to suppress debate about the validity of current DNA testing methods, it is the prosecutors who are doing the disservice—and a dangerous one—both to science and justice.



"God, Collings, I hate to start a Monday with a case like this."

Starting with this issue, the CAC News will be featuring some of the human aspects of our profession. This newsletter has always presented information on meetings, seminars, techniques, ethics and other items of professional interest, however, it has been light on what is happening in the lives of the people that actually do the work.

The California Association of Criminalists is not just about science, crime and doing the right things, but also about people with similar backgrounds and interests forming lifelong friendships and professional relationships. The activities (and lives) of the people in our association are varied and interesting, but it is easy to lose track of someone if you don't interact with them on a regular basis. We would like to keep the ties strong by keeping people up-to-date and informed. The CAC News allows us to exchange personal as well as technical information. To make this feature successful, we need your help. It is our goal to identify at least one person in every laboratory that is willing to act as the CAC News' eyes and ears and to report on their laboratory's activities. Examples of what we are interested in is; births, deaths, promotions, transfers, interlab activities (see example below), anecdotes, interesting experiences, close encounters, forensic Elvis sightings, etc. If you are interested in being a part of spreading the word, contact the CAC's Editorial Secretary, Lisa Brewer, at (408)299-2224. The stories can be from a few sentences to several paragraphs and you don't have to be a professional writer to do a good job. The CAC News editorial staff reserves the right to edit the submissions and makes no claims as to the authenticity of the information.

The idea for this feature was stolen from the MAAFS Newsletter, Volume 20, #3.

—Greg Matheson

## Southern Cal. Crime Lab Softball Tournament

On Saturday, September 25th, 1992 the First Annual Southern California Crime Lab Softball Tournament was hosted by the Orange County Sheriff-Coroner Lab at Mile Square Park in Fountain Valley. The five teams that participated were from Orange County Sheriff-Coroner, San Bernardino County Sheriff, Huntington Beach Police, San Diego Police and Los Angeles Police.

The double elimination event commenced bright and early on a very dewy playing field at 9 a.m. The first round pitted LAPD against OCSO, and SBCSO against SDPD, with HBPD taking a bye. LAPD and SDPD both won handily. Taking advantage of rules that weren't clearly spelled out prior to the tournament, both LAPD and SDPD used players who did not work for their respective laboratories. These non-lab employee players are known in the athletic world as "ringers".

The second round pitted LAPD against SDPD. Both teams were clearly the athletic powerhouses among the field of five lab teams. After a hard fought battle LAPD prevail. Clearly LAPD's ringers were superior to San Diego PD's, and made the difference as LAPD won by greater than a 10 run margin.

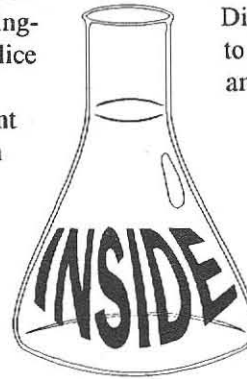
The remaining games were held after lunch. After the penultimate round only San Diego PD, with one loss, and LAPD, undefeated, remained. The youthful LAPD squad, led by their captain Leonard Romero, were eager to finish the tournament and claim their trophy. Alas, San Diego PD was tired and had a long way to drive home so they threw in the towel and forfeited the final game.

As 1992 champions the LAPD Crime Lab will host the 1993 tournament, sometime toward the end of summer. We at LAPD, and all who participated in this event want to extend our thanks and appreciation to **Kenny Wong** and **Curtis Heye** of Orange County Sheriff-Coroner for doing a great job of organizing an enjoyable athletic event. We hope

to do the same in 1993. For those of you who may be in the Los Angeles area and would like to view the magnificent trophies that our squad brought home, feel free to stop by the laboratory.

—Joseph Hourigan  
Criminalist

Los Angeles Police Department



## Information

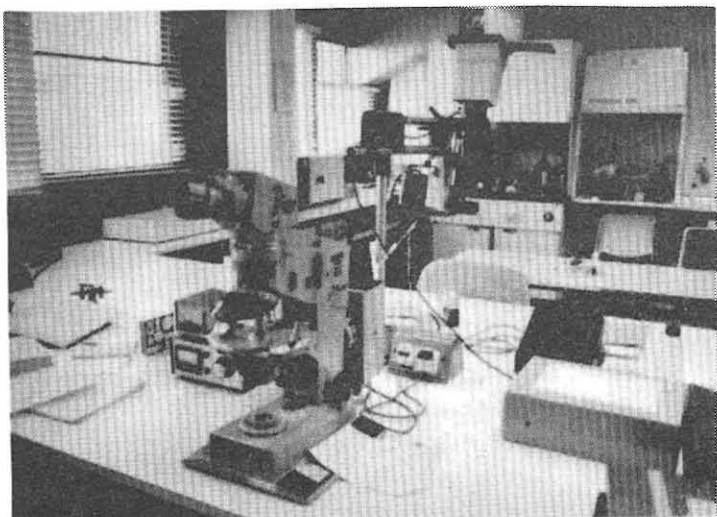
If YOU have an interesting tidbit for Inside Information, or a photo suitable for the cover of the CAC News, please send it to:

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Editorial Secretary  
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Crime Lab  
1557 Berger Dr. #B-2  
San Jose, CA 95112  
(408) 299-2224  
FAX (408) 298-7501



"No, you may not have a research grant for further study!"





*Practically any flavor of light microscope can be found.*

# No Blarney

## DUBLIN CRIME LAB BRINGS HIGH-TECH TO IRELAND

**A** recent trip to Ireland included a tour through the *Garda Sciochana* crime laboratory in Dublin. The laboratory tour was given by its director, Dr. James Donovan, who started the lab (Ireland's first) about fifteen years ago.

The Garda, whose name is Gaelic for "guardians of the peace", was formed after the Irish civil war in the 1920's to replace the "police" who had been sent by Britain and who had been particularly brutal. All staff members are civilian, and the lab reports directly to the Irish Ministry of Justice.

Although most of the crime is rural in nature, the current tensions in Northern Ireland influence the caseload at the Garda. Dr. Donovan himself suffered a car bomb attack several years ago and now must use a cane to aid in walking. Those accused of terrorist acts may be tried in Irish courts without a jury, but rather in front of a panel of three judges. This after juries had been intimidated by extremist groups until they could no longer render impartial verdicts.

Becoming a forensic scientist in Ireland is no small task. First, all Irish nationals must pass a difficult exam

which tests their ability to read and write "the Irish" (gaelic) language. Although spoken by only a few, it remains the official language of Ireland, and is used on many official documents. Second, competition for the few choice jobs in

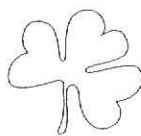
Ireland is fierce. Dr. Donovan, chatting in his office overlooking the rooftops of Dublin, related that during a recent recruitment, there were over six hundred applicants for only eleven positions, most of whom were well qualified.

Because of the extremely high cost of auto insurance, hit-rut investigations have blossomed over the past several years. The crime lab plays an important role as trace amounts of paint and glass recovered at the accident scene and on victim's clothing are compared with samples recovered from suspect vehicles.

Ireland utilizes a device known as a "tachograph" in all commercial vehicles such as trucks, buses and taxis. This device keeps a record of the vehicle's speed during all hours of operation. It is recovered from a suspect hit-run vehicle by the Garda. Using detailed maps of Dublin, for example, and careful calculations relating to the stops the vehicle made, it is possible to trace the actual route taken by a particular vehicle before and after an accident occurred.

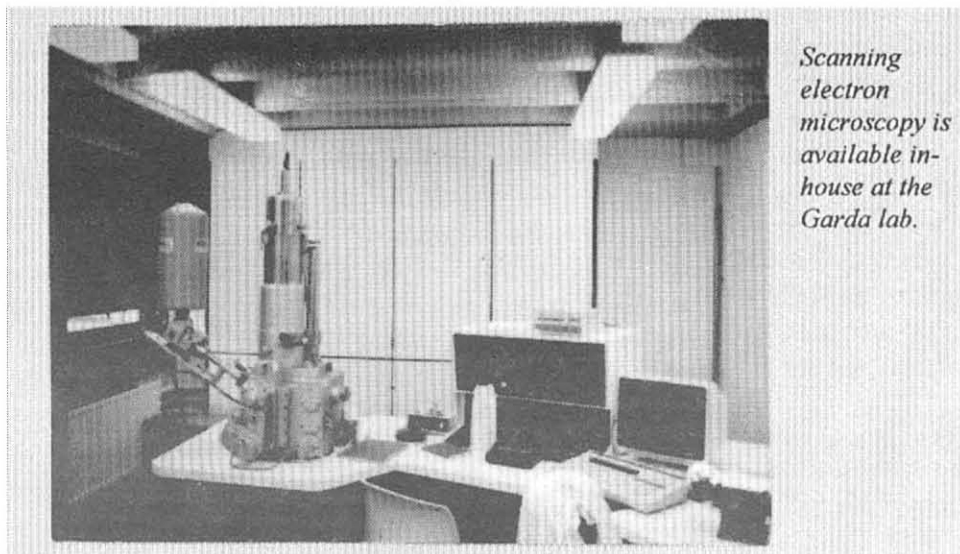
A difficult issue facing the crime lab is that of "chain

during a  
recent recruit-  
ment, there were over  
six hundred applicants  
for only eleven  
positions



of custody." While the concept of keeping track of possession of evidence is similar to that in the U.S., it is taken to the extreme in Ireland. Sending a sample to a London DNA lab for example, would require that the evidence be physically handed from the criminalist to the representative of the DNA lab. This can be rather expensive and time consuming. Donovan says he would prefer a system more like that in the U.S., where registered mail and lock-boxes for evidence are allowed. The trips to the DNA lab may prove to be a thing of the past anyway, as the Garda lab has recently hired two molecular biologists to get their DNA program up and running.

Equipment in the laboratory is second to none. Each room is outfitted with the latest microscope gear, often with video attachments for group viewing. Computerized instrumentation is abundant, including automated arson accelerant analysis and scanning electron microscopy. Sometime the most useful devices aren't so high-tech however. Donovan's staff found that a huge stainless steel funnel, such as those used by commercial food preparers, was ideal for collecting trace evidence from clothing.



*Scanning electron microscopy is available in-house at the Garda lab.*

Tiny bits of material recovered in this manner are then examined at high magnification under a variety of microscopes.

Drug cases are still relatively rare when compared to the U.S., yet are on the rise nevertheless. Marijuana and related products are currently the most often encountered drugs. Unfortunately, cocaine cases are becoming more frequent. Previous to the creation of the Garda lab, drug cases were analyzed at a local school of pharmacy.

The lab overall was very up-to-date and extremely professionally run. There is no doubt that the citizens of Ireland enjoy scientific crime fighting at its best.

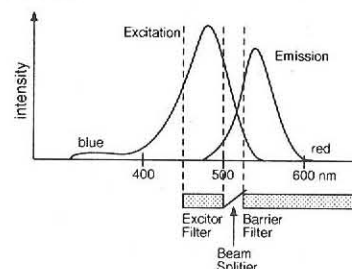
—John Houde

# News & Tips on Microscopy 4 NUMBER

## FLUORESCENCE NO. 1: THE FILTER SET

Fluorescence microscopy is based on the high-energy excitation of a chemical component within your sample, followed by a lower-energy emission. The chemical component (fluorochrome) can be:

1. a natural part of the system which will autofluoresce or
  2. a dye or probe attached to highlight a specific feature (membrane vs. cytoplasm) or chemical activity (calcium metabolism).
- Each fluorochrome can be described by two characteristic curves: excitation and emission.



## CHOOSE THE CORRECT FILTER SET.

To convert a microscope to a fluorescence system, you need:

1. an exciter filter which passes only the high energy excitation light
  2. a dichroic beam splitter which directs the light downward toward the specimen
  3. a barrier filter to remove any extraneous light
  4. a high-intensity gas discharge light source.
- The filter set must be appropriate for the fluorochrome being used.

## RECOMMENDATION FOR DOUBLE LABELING.

If you are using more than one fluorochrome, make sure that the emission curve of one does not overlap the excitation curve of the next, causing spontaneous internal fluorescence. Typical culprits: FITC + Rhodamine. A better alternative: use probes with greater spectral separation such as FITC + Texas Red.

Contact us and we'll send you a helpful chart of recommended filter sets for common fluorochromes.

And for all your needs in fluorescence microscopy, choose the leader—Zeiss.

Microscope Division  
Carl Zeiss, Inc.  
One Zeiss Drive  
Thornwood, NY 10594  
Call: 800-233-2343  
Fax: 914-681-7446

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YOU'RE  
MISSING**



## Southern

### SOUTHERN SECTION ACTIVITIES

On Thursday, November 5, 1992, Manuel Munoz of the Los Angeles County Department of Coroner, hosted a dinner meeting at Tamayo's Restaurant. Dr. Gerald Vale, Chief Forensic Dentist/Consultant for the LAC Department of Coroner lectured on "The Dentist and Criminalist—Partners in Crime Solving". Thirty-two people attended the dinner meeting.

The Southern Study Groups met on the same day and are described below.

#### DRUG STUDY GROUP

Chairs: *Elizabeth Thompson, John Davis, Orange Co. Sheriff-Coroner*

Guest speakers were Patty McCathron and Jerry Roberts, Special Agents from the California Department of Justice, Bureau of Narcotics Enforcement. Their presentation included information on the laws concerning clandestine laboratories, including environmental law and new legislation. They set-up and described a simulated methamphetamine laboratory. Discussion included booby traps found at clandestine laboratories, as well as information sources used to find clandestine laboratories. Slides and video supplemented their presentation. Attendees received a hand out of the compiled results of Elizabeth Thompson's drug analysis method survey. Twelve individuals attended the meeting.

#### SEROLOGY STUDY GROUP

Chairs: *David Hong, Los Angeles Co Sheriff; Don Jones, San Bernardino Co Sheriff*

Continuing the "Back to Basics" lecture series, Collin Yamauchi, LAPD lectured on Pep A. Discussion included casework with Pep A variants. This lecture was video taped. Carol Hunter, Cal Lab and Jim White, OCSO reviewed the Fall 1992 CAC Seminar papers and Bloodspatter workshop. Nineteen individuals attended the meeting.

#### TOXICOLOGY STUDY GROUP

Chair: *Manuel Munoz, LA Co Coroner*

Robert Cravey, former Chief Forensic Toxicologist at Orange County Sheriff-Coroner, gave a presentation on "The History of Toxicology". Sixteen individuals attended the meeting.

### BLOOD ALCOHOL STUDY GROUP

Chair: *Dan Nathan, LASD*

Status of the negotiations between CAC, CACLD and Department of Health Services regarding burdensome and restrictive nature of regulations was discussed. The forensic alcohol class put on by A.W. Jones at Huntington Beach Police Department (October 26-27, 1992) was reviewed. Announced a drinking study to be sponsored by LASD in March 1993. Discussed the changeover to NaF preservative in urine jars from HgCl<sub>2</sub>. Discussed the application of the new statute where breath alcohol results are expressed in terms of grams/210 liters of breath. Nine individuals attended the meeting.

## Northern

### NORTHERN SECTION ACTIVITIES

On March 4th, there was a dinner meeting hosted by SERI, and attended by over 50 persons. The speaker, Mr. Alexander Jason, presented a discussion of the use of "Forensic Animation for Criminal and Civil Trials." Mr. Jason is a Ballistics Consultant and Forensic Animation Technologist. He used forensic animation in the widely publicized Mitchell murder trial. This homicide trial animation shows the incident from the defendant's view and was the first use of animation based solely on a defendant's testimony. Mr. Jason discussed several court cases in which his expertise was used, the technical aspects of putting together an animated display, as well as the cost and availability of animation. It is his opinion that animation will play an increasingly important role in upcoming court decisions.

#### SEROLOGY STUDY GROUP

Chairs: *Pam Sartori, Oakland PD; Nancy Marte, Santa Clara Co.*

The Serology Study Group met on November 12, November 24, December 3 and December 15, 1992, at the Oakland Police Department. The meetings reviewed the video tapes of the "Population Genetics and Statistics for Forensic Biology" training course taught by Dr. Bruce Weir.

*Please turn to page 10.*



## ABC Certification UPDATE



This is a reminder to all CAC certificate holders that the deadline to submit your application to obtain an ABC certificate is July 1, 1993. If you have not received your ABC application, one may be requested by mail or FAX:

American Board of Criminalistics  
Certification Information & Applications  
P.O. Box 209  
Greenlawn, NY 11740  
FAX: (516) 261-2120

Anyone interested in taking the ABC General Examination should request an application from the above address. The ABC will give the test at regional meetings as long as there are ten or more takers. Look for a list of test locations in the July newsletter. If you are interested in taking the exam at the Fall 1993 CAC meeting or have any questions regarding certification, please telephone me at (213) 226-4978.

—Steve Renteria, ABC Representative



## Catalog from Training & Resources

### SEROLOGY

*Back to Basics Series:*

- TAPE 1:**
- Electrophoresis Basics — Ron Linhart
  - Glycogenated Vaginal Epithelia — Ed Jones
  - Erythrocyte Acid Phosphatase — Berni Rickard
  - Phosphoglucomutase — J. White / M. Hong
  - Haptoglobin — David Hong

**TAPE 2:** • Immunology — David Stockwell

**TAPE 3:** • Gm / Km — Stockwell / Wraaxall

**TAPE 4:** • Peptidase A — Colin Yamaguchi

*Also available:*

#### Population Genetics & Statistics Course

*Dr. Bruce Weir, Instructor*

Eight two-hour tapes, PLUS the course notebook.  
(from the three day course at SBSD)

#### Bloodspatter Lecture — Fall 1992 CAC Meeting

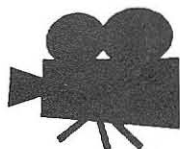
*Gary Knowles, Instructor*

2 Tapes

#### Microscopic Exam. of Sex Assault Evidence

*Ed Jones, Instructor*

(CAC Members Only)



### GENERAL INTEREST

- TAPE 1:**
- ABC News 9/23/91: "Lab Errors"
  - CBS News 4/27/92: "Animation Reconstruction"
  - Alex Jason / Jim Mitchell: "Trial Animation"
- TAPE 2:**
- 48 Hours 9/25/91: "Clues"

### TRACE EVIDENCE

#### Basic Microscopy Lecture

*Ed Rhodes, Instructor*

Two Tapes

#### Tire Impressions as Evidence

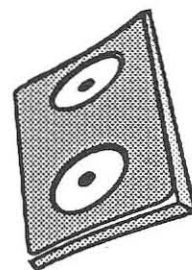
*Lawren Nause, RCMP, Instructor*

Five two-hour tapes PLUS the course notebook  
(from the three day course at SBSD)

#### Evaluation of Lamp Filament Evidence

*Lowell Bradford, Instructor*

One tape



*Please address requests to:*

**Carol L. Hunter, T&R Chairperson**

**Cal Lab**

**17842 Irvine Blvd. Suite 224, Tustin, CA 92680**

## Northern Section

*continued from page 8*

### FIREARMS STUDY GROUP

Chair: *Lansing Lee, Oakland PD*

The Firearms Study Group met on November 19, 1992 at the Oakland Police Department. The meeting reviewed an "assault weapon" case from San Diego County Sheriff's Department, open case files dealing with cartridge casings and a photographic bullet, and the 9mm

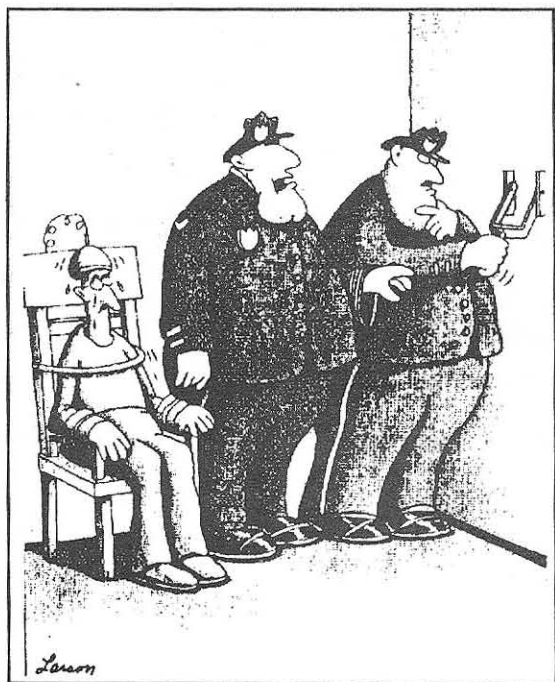
P-Matrix text by Robert Kennington of the Metro Dade Police Crime Laboratory. An exercise generated from ten consecutively rifled RUGER P-85 pistols from the Illinois State Police Laboratory System was discussed and made available to labs. A continuing discussion of helpful hints, interesting cases and criteria for identification comprised the remainder of the meeting.

### TRACE EVIDENCE STUDY GROUP

Chair: *Diane Bowman, Oakland PD*

The Trace Evidence Study Group met on November 10, 1992 at Forensic Science Associates. The meeting consisted of gathering trace evidence for future analysis. The participants were requested to bring to the meeting, a shirt with trace evidence added and the reference samples associated with the planted evidence. The shirts were provided to the participants prior to the meeting. A basic resource manual prepared by Peter Barnett, FSA, was distributed to the participants.

The next dinner meeting is scheduled for April 22nd., hosted by Susan Swarner of the Contra Costa Co. Lab. The guest speaker is Ray Wisniewski, and the topic will be "Evidence Associated with Occult Crime." For further information, please contact Susan Swarner at (510) 646-2455 or Jennifer Mihalovich at (510) 222-8883.



*"The contacts must be dirty...just jiggle it up and down a few times."*

## IT'LL SNEAK UP on you...

CAC Spring Seminar  
May 19 - 22

# CAL & DNA

California Department of Justice

Bureau of Forensic Services

Contact Jan Bashinski (Arrangements Chair) (510) 540-2434 FAX (510) 540-2701

## QUESTIONED DOCUMENT EXAMINER

The Personnel Bureau of the Las Vegas Metropolitan Police Department is now accepting applications for the position of Questioned Document Examiner in our Forensic Laboratory Section. Minimum qualifications include a Bachelors degree in criminalistics, forensic science, chemistry, or a closely related field AND three years of full time professional work experience as a QD Examiner whose primary duties involved the examination of handwriting for authorship and other document related matters; AND must be certified or be eligible for certification by the American Board of Forensic Document Examiners. The annual salary range is \$41,219-\$54,242. The LVMPD provides 100% employer paid retirement plan; medical, dental and vision care for the employee; there is no Social Security contribution and the State of Nevada does not have personal income tax. The deadline for applying is 4:00 p.m. on Friday, April 30, 1993, or until a sufficient number of qualified applicants have applied. We are an EEO/AA/Male-Female employer. Interested candidates should contact:

Las Vegas Metropolitan Police Department  
Personnel Bureau  
400 E. Stewart Avenue  
Las Vegas, Nevada 89101

Any further information, please contact: Katey Lavelle, Selection and Classification Manager, (702) 799-3979.

## FORENSIC LAB ANALYST

Position is available until filled. Minimum qualifications include a B.S. degree in criminalistics, chemistry, biology, physics or a related field AND two years experience in examining documents, shoeprints/tireprints and/or fingerprints; or have equivalent combinations of relevant education and experience. For further information, please contact:

Rex Riis, Criminalist  
SD Forensic Lab  
500 E. Capitol, Pierre, SD 57501  
(605) 773-3673  
FAX (605) 773-4629.

## DNA STUDY GROUP FORMING-UP

The Southern Region is forming a DNA Study Group. An organizational meeting and a discussion of the papers from the Second International Symposium on the Forensic Aspects of DNA Analysis (FBI—March 29 - April 2, 1993) will be held on April 12, 1993 from 9:00—3:00pm in the San Bernardino Sheriff's Crime Laboratory Conference Room. If you would like to be on the mailing / contact list, please contact:

Barbara L. Johnson  
Los Angeles Co. Sheriff's Dept.  
Scientific Services Bureau  
2020 W. Beverly Blvd.  
Los Angeles, CA 90057  
(213) 226-4978  
(213) 413-7637 FAX

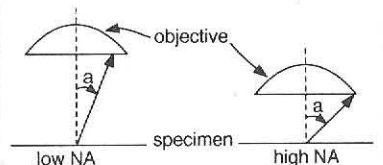
## News & Tips on Microscopy

THE ZEISS CORNER

NUMBER 5

### FLUORESCENCE NO. 2: THE OPTICS

1. **Use the highest numerical aperture (NA) and lowest magnification (M).** Intensity (I) of the image is related to NA and M,  $I = NA^4/M^2$ . Therefore, use an objective with the lowest M and highest NA, such as the Zeiss Plan-Neofluar 40X/1.3 oil objective. NOTE: higher NA will mean a shorter working distance.



2. **Use oil immersion objectives.** Oil objectives make use of physics to capture many of the rays which would usually escape collection. **Caution:** make sure to use a non-fluorescing immersion oil.
3. **Use objectives with as few internal elements as possible.** The greater the correction in an objective, the more internal lenses it must have. Each new lens gobbles up light. The best choice: Zeiss high-quality "neofluar" objectives.
4. **Remember, optics have spectral responses, too.** Interested in working just outside the typical 380-700 nm spectral range? Check with your Zeiss rep for the response of your optics. Some transmit down into the near ultra-violet, as low as 340 nm. For deeper UV, exchange necessary components for quartz.

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