Proceedings Note:
Recurring items formerly in the Proceedings such as Lending Library contents and membership forms are now found on the CAT website.

Presentations from the November meeting will be published on the web as soon as possible after the meeting.

CAT Office California Association of Toxicologists
Lyn Alkan
4951 Flower Court
Rohnert Park, CA 94928
(707) 586-1143

Please send all correspondence, annual dues payments, and meeting registration to this address.

CAT Website Features
Home page:  http://www.cal-tox.org
- Contains links to SOFT employment listings, CAT Forum, and CCI courses. The CAT Online Toxicology Literature Review is now a keyword-searchable pdf file.
- Updated information for the next CAT meeting and its program.
- Contact the CAT office, board members and chairs.

Proceedings Page:  Members-only access to the Proceedings and scientific presentations.
You must enter the password “ctox” (lower case, no quotes) to access electronic copies of the Proceedings and previous scientific presentations from CAT meetings.

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CAT OFFICERS FOR 2007–2008

<table>
<thead>
<tr>
<th>Position</th>
<th>Name</th>
<th>Phone</th>
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<tbody>
<tr>
<td>President</td>
<td>John Hughes</td>
<td>(925) 924-5209</td>
</tr>
<tr>
<td>Immediate Past President</td>
<td>Jim Bourland</td>
<td>(702) 733-3769</td>
</tr>
<tr>
<td>Vice President</td>
<td>Michelle Sandberg</td>
<td>(323) 343-0530</td>
</tr>
<tr>
<td>Secretary/Membership</td>
<td>Nadina Giorgi</td>
<td>(916) 227-3620</td>
</tr>
<tr>
<td>Secretary/Proceedings</td>
<td>Catherine Hamm</td>
<td>(858) 694-2909</td>
</tr>
<tr>
<td>Treasurer</td>
<td>Dan Coleman</td>
<td>(916) 227-3620</td>
</tr>
<tr>
<td>Member-at-Large North</td>
<td>Trevor Gillis</td>
<td>(408) 793-6753</td>
</tr>
<tr>
<td>Member-at-Large South</td>
<td>Kristina Takeshita</td>
<td>(213) 847-0070</td>
</tr>
</tbody>
</table>

COMMITTEES AND CHAIRS

<table>
<thead>
<tr>
<th>Committee</th>
<th>Chair</th>
<th>Phone</th>
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<tbody>
<tr>
<td>AACC ACCENT Credits</td>
<td>Kenton Wong</td>
<td>(510) 266-8132</td>
</tr>
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<td></td>
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<tr>
<td>Future Meetings / Short Courses</td>
<td>Nikolas Lemos</td>
<td>(415) 553-1694</td>
</tr>
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<tr>
<td>Bylaws and Records,</td>
<td>Ed Smith</td>
<td>(916) 366-3113</td>
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<tr>
<td>Review and Revision</td>
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</tr>
<tr>
<td></td>
<td>Sarah Kerrigan</td>
<td>(713) 668-2440</td>
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<tr>
<td>Drugs &amp; Driving</td>
<td>Cathy Hamm</td>
<td>(858) 694-2909</td>
</tr>
<tr>
<td></td>
<td>Jennifer Valdez</td>
<td>(805) 312-5276</td>
</tr>
<tr>
<td>Emeritus Elect</td>
<td>Nadina Giorgi</td>
<td>(916) 227-3620</td>
</tr>
<tr>
<td></td>
<td>Dick Shaw</td>
<td>(619) 265-2568</td>
</tr>
<tr>
<td>Forensic Alcohol Advisory</td>
<td>Dan Anderson</td>
<td>(323) 343-0660</td>
</tr>
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<tr>
<td>Research Grant</td>
<td>Rob Fitzgerald</td>
<td>(858) 552-8585, ext 7761</td>
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<tr>
<td>Legislative Liaison</td>
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CAT Website: www.cal-tox.org

CAT Office: California Association of Toxicologists
4951 Flower Court
Rohnert Park, CA 94928
(707) 586-1143
CAT WORKSHOP AND WINTER MEETING

February 5-6, 2008
Tuesday and Wednesday

Late Registration fees have been waived for this meeting …
So spread the word and please join us!

Crowne Pointe Plaza Hotel – Beachfront!
300 N. Harbor Drive, Redondo Beach, CA 90277-2552
(310) 318-8888 / (800) 972-2576
www.crowneplaza/com/redondobeach
6 miles from LAX Airport

$159/night until 01/14/2008

REGISTRATION PROCEDURES

1) Mail the completed registration form along with a check made out to “CAT” to:
   Lyn Alkan
   CAT Office
   4951 Flower Court
   Rohnert Park, CA 94928

   No purchase orders or credit cards are accepted at this time.

   If you need a W-9 form, please contact our treasurer at dan.coleman@doj.ca.gov
   Send this form to Dan Coleman, not the CAT Office.

   Here are some common mistakes that would prevent you from being registered:
   ▪ If your registration form is sent without money
   ▪ If your member dues are not up to date and you register as a “member” (see item #6)
   ▪ If you registered as a member, but are a non-member of CAT
   ▪ If your registration was post-marked after January 26, 2008 (see item #5)

2) You will receive an e-mail confirming successful registration. Please bring this with you to the meeting.

3) If you do not receive an e-mail within two weeks of submitting your registration, you have NOT been successfully registered! Please contact Lyn at lyn.alkan@gmail.com with questions.

4) No refunds will be issued.

5) If you are registering after Jan. 26, 2008, it is too late for “mail-in” registration. You will need to register onsite as a “walk-in” and have cash or check on hand.

6) If you are not up-to-date on your membership dues, you have two choices:
   a) Register at the “non member” rate
   b) Send an additional check in the amount of $70.00 to update your membership
REGISTRATION FORM

** No refunds **
Questions? Please e-mail Lyn Alkan at lyn.alkan@gmail.com

Mail completed Registration form to: Lyn Alkan
CAT Office
4951 Flower Ct.
Rohnert Park, CA 94928

Name: ____________________________
Mailing Address: __________________

***E-MAIL*** PLEASE PRINT NEATLY
City/State/Zip: ____________________

Phone: ____________________________
Professional/Business Affiliation __________

MY TOTAL REGISTRATION COST IS $__________, w/ check #___________ made out to CAT

Are you a CAT member? YES ☐ NO ☐

TUESDAY, FEBRUARY 5, 2008

Registration (Must be postmarked by January 26, 2008)
( ) $60.00 Pre-registration for CAT Members
( ) $35.00 Pre-registration for CAT Emeritus/Student Member
( ) $90.00 Pre-registration for Non Members

Walk-In Registration (January 27 and beyond)
( ) $100.00 Walk-in registration for CAT Members
( ) $75.00 Walk-in registration for CAT Emeritus/Student Member
( ) $130.00 Walk-in registration for Non Members

WEDNESDAY, FEBRUARY 6, 2008

Registration (Must be postmarked by January 26, 2008)
( ) $60.00 Pre-registration for CAT Members
( ) $35.00 Pre-registration for CAT Emeritus/Student Member
( ) $90.00 Pre-registration for Non Members

Walk-In Registration (January 27 and beyond)
( ) $100.00 Walk-in registration for CAT Members
( ) $75.00 Walk-in registration for CAT Emeritus/Student Member
( ) $130.00 Walk-in registration for Non Members
FEBRUARY 2008 WORKSHOP

Site: Crown Plaza Hotel Redondo Beach and Marina
300 North Harbor Drive
Redondo Beach CA 90277-2552
Ph: (310) 318-8888 / (800) 972-2576

Special room rate - $159/night

Hosts: Michael Henson - Pacific Toxicology Labs/
Forensic Toxicology Associates
Chatsworth, CA
Ph: (818) 598-3118

John Treuting, Ph.D. - John Treuting & Assoc.
Ph: (805) 494-5365

---

Tuesday, February 5, 2008 – Field sobriety Testing, Prescription Drugs and DUI

PRELIMINARY AGENDA

<table>
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<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td>BREAKFAST and REGISTRATION</td>
</tr>
<tr>
<td>9:15</td>
<td>Welcome and Vendor Introductions</td>
</tr>
<tr>
<td>9:30</td>
<td>Speaker TBA</td>
</tr>
<tr>
<td></td>
<td>Impaired Driving Unit, California Highway Patrol Academy</td>
</tr>
<tr>
<td></td>
<td>• Field Sobriety Tests, the Drug Recognition Expert, and Prescription Drug DUI</td>
</tr>
<tr>
<td>10:00</td>
<td>BREAK</td>
</tr>
<tr>
<td>10:30</td>
<td>Kingsley Labrosse, Ph.D.</td>
</tr>
<tr>
<td></td>
<td>Director, President, California Diagnostic Laboratories</td>
</tr>
<tr>
<td></td>
<td>• The Pharmacology of Prescription Drugs, The Therapeutic Range, and DUI</td>
</tr>
<tr>
<td>11:30</td>
<td>LUNCH</td>
</tr>
<tr>
<td>12:00</td>
<td>Speaker TBA</td>
</tr>
<tr>
<td></td>
<td>• Ocular Manifestations of Prescription Drugs</td>
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<tr>
<td>13:00</td>
<td>TBA</td>
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<tr>
<td>14:00</td>
<td>TBA</td>
</tr>
<tr>
<td>14:30</td>
<td>Brian Neis</td>
</tr>
<tr>
<td></td>
<td>MS Specialist, Varian Corporation</td>
</tr>
<tr>
<td></td>
<td>• Analysis of Various Prescription Drugs</td>
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<tr>
<td>15:30</td>
<td>Reception</td>
</tr>
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<td>1830-2000</td>
<td>Board Meeting</td>
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The AACC will probably approve this meeting for 6 ACCENT credits. ACCENT CREDIT IS GIVEN ONLY FOR ATTENDANCE DURING A WHOLE SESSION.
**FEBRUARY 2008 QUARTERLY MEETING**

**Site:** Crown Plaza Hotel Redondo Beach and Marina  
300 North Harbor Drive  
Redondo Beach CA 90277-2552  
Ph: (310) 318-8888 / (800) 972-2576  

**Special room rate - $159/night**

**Hosts:** Michael Henson - Pacific Toxicology Labs/Forensic Toxicology Associates  
Chatsworth, CA  
Ph: (818) 598-3118  
John Treuting, Ph.D. - John Treuting & Assoc.  
Ph: (805) 494-5365

---

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>0800-0845</td>
<td>Business Meeting</td>
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<tr>
<td>0845-0900</td>
<td><strong>BREAK</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Sarah deQuintana, Jaime Lintemoot</strong></td>
</tr>
<tr>
<td></td>
<td>Los Angeles County Department of Coroner, Los Angeles CA</td>
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<tr>
<td></td>
<td><em>Los Angeles County: The Drugs that Drive Us.</em></td>
</tr>
<tr>
<td></td>
<td><strong>Michael Henson</strong></td>
</tr>
<tr>
<td></td>
<td>Pacific Toxicology Laboratories, Forensic Toxicology Associates, Riley Laboratories</td>
</tr>
<tr>
<td></td>
<td><em>The Increasing Detection of Zolpidem, Alprazolam, and Carisoprodol in San Diego County DUI cases the last 3 years.</em></td>
</tr>
<tr>
<td></td>
<td><strong>BREAK</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Speaker TBA</strong></td>
</tr>
<tr>
<td></td>
<td>NMS Laboratories, Willow Grove PA.</td>
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<tr>
<td></td>
<td><em>Value of Ethyl Glucuronide in the determination of alcohol use.</em></td>
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<tr>
<td></td>
<td><strong>John Treuting, Ph.D.</strong></td>
</tr>
<tr>
<td></td>
<td>John Treuting and Associates</td>
</tr>
<tr>
<td></td>
<td><em>Levels of Ethylene Glucuronide in respiratory care therapists using alcohol hand-washing procedures</em></td>
</tr>
<tr>
<td></td>
<td><strong>LUNCH</strong></td>
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The AACC will probably approve this meeting for 6 ACCENT credits. **ACCENT CREDIT IS GIVEN ONLY FOR ATTENDANCE DURING A WHOLE SESSION.**
### CAT THANKS TO OUR SPONSORS!

**November 2007**  
California Association of Toxicologists Fall Meeting  
Embassy Suites Hotel – Seaside, CA

<table>
<thead>
<tr>
<th>Sponsor</th>
<th>Host</th>
<th>Contact Details</th>
</tr>
</thead>
</table>
| Shamrock Glass   | Bunnie Gallagher          | (302) 629-5500  
www.shamrockglass.biz|
| Perkin-Elmer     | Tessa Burt                | Anthony Rhoden  
www.perkinelmer.com|
| Thermofisher     | Jeff Nelson               | Gail Harkey  
(310) 528-3990  
(818) 808-2999  
www.thermofisher.com|
| Agilent          | John Hughes               | Cameron George  
(302) 633-8264  
www.agilent.com|
| Restek           | Cathy S. Hetrick          | (814) 353-1300  
www.restek.com|
| Waters Corporation | Crystal Holt              | (413) 230-9822  
www.waters.com|
| SPEware          | Jim Leontis               | (831) 254-2121  
www.speware.com|
| Immunalysis      | Jill Taylor               | Robert Gabardy  
(909) 482-0840  
www.immunalysis.com|
| Neogen           | Skyler Coleman            | Lisa Kellerman  
(859) 854-1221  
www.neogen.com|
| Randox           | Katie Walker              | (866) 4RANDOX  
www.randox.com|
CAT RESEARCH ASSISTANT GRANT

The California Association of Toxicologists has made available $2,500 for a Research Assistance Grant. This grant is intended to fund research projects in the area of clinical and forensic toxicology. In addition, up to $500 is available for travel expenses to recipients of the grant who will be expected to present their findings at a future CAT meeting. For further information, contact the Chair of CAT Research Assistant Grant by fax, mail or e-mail at the address below.

Robert L. Fitzgerald, Ph.D.
VAMC-113
3350 La Jolla Village Drive
San Diego, CA 92161
Ph: (959) 552-8585, ext. 7761 / Fax: (858) 642-6304
E-mail: rlfitzgerald@vapop.ucsd.edu
The Program
The CAT Survey Program is a unique inter-laboratory exchange system in which host laboratories prepare survey samples for participating laboratories to analyze. The program is similar to a proficiency program, however; it may be utilized to introduce new drugs and/or drug trends. The CAT Survey Program has been in existence for 10+ years and is continually growing. Its success is based on the strong involvement from laboratories across the nation and the many volunteers who help put the surveys together. If you would like to join the CAT Survey Program or have any questions, please contact the CAT Quality Assurance Chair.

Why Join??

Challenge your Laboratory’s Existing Analytical Methods
Learn how other Laboratories Approach Drug Analysis
Discover New and/or Rarely Encountered Drugs
Keep Current on Drug Trends across the Nation
Use the Survey Samples as an External Quality Control

Requirements
Your laboratory must be located in the United States or Canada.
One analyst from your laboratory must be a CAT member.**

** CAT membership information and the application form are available online at http://www.cal-tox.org, or you can turn in the half-sheet below to Jaime Lintemoot (Quality Assurance Chair, CAT).

If your laboratory would like to participate in the CAT Survey Program, please fill out the form below and send to the CAT Quality Assurance Chair.

JAIME LINTEMOOT
Los Angeles County Dept of the Coroner
1104 N. Mission Rd
Los Angeles, CA 90033
Ph: (323) 343-0672/ Fax: (323) 22205171
E-mail: jlintemoot@lacoroner.org

---

CAT Survey Program Participation Form

Name: ________________________________________________
Lab: ________________________________________________
Address: ____________________________________________
____________________________________________________
____________________________________________________
Phone: ______________________________________________
Fax: ________________________________________________
Email: ______________________________________________

☐ My laboratory is interested in hosting a survey sample for the CAT Survey Program

Laboratory Information
• Type of Laboratory
  ☐ Clinical  ☐ Forensic
• Type of Specimens Analyzed:
  ☐ Blood  ☐ Serum
  ☐ Urine  ☐ Saliva
  ☐ Other ____________________

---
FUTURE MEETINGS AND SHORT COURSES

  CONTACT:
  Web: www.lresources.com/training/trims_web.html

  CONTACT:
  Web: http://www.lresources.com/training/trbeqts.html

  CONTACT:
  Web: http://www.lresources.com/training/tramd.html

  CONTACT:
  Web: http://aafs.org/default.asp?section_id=meetings&page_id=aafs_annual_meeting

- March 16-20, 2008, Annual Meeting of the Society of Toxicology and ToxExpo™, Seattle, WA
  CONTACT:
  Web: http://www.toxicology.org/ai/meet/am2008/

- June 18-20, 2008 (Foster City, CA - San Francisco area); December 3-5, 2008 (San Diego, CA), Course on LC/MS: Fundamentals and Applications.
  CONTACT:
  Web: http://www.lresources.com/training/trlcms_fund.html

- July 11-25, 2008, or December 8-19, 2008, Online Course on Fundamentals of HPLC.
  CONTACT:
  Web: http://www.lresources.com/training/trfund.html

- August 4-8, 2008, Course on Chromatography-Mass Spectrometry: Principles and Practice, Stockton, CA
  CONTACT:
  Web: http://www.lresources.com/training/trchrom_massspec.html

- October 27-31, 2008, Annual Meeting of the Society of Forensic Toxicologists, Phoenix, AZ.
  CONTACT:
  Web: http://soft-tox.org/?pn=meeting_information

Future CAT Meetings:

- Winter 2008 Meeting (February 5-6, 2008)
  Southern California
  Hosts: Michael Henson and John Treuting

- Summer 2008 Meeting (dates to be confirmed)
  Ventura/Santa Barbara, CA
  Host: Dea Boehme

- Fall 2008 Meeting (concurrent with SOFT, dates to be confirmed)
  Phoenix, AZ
  Please consider volunteering to host a meeting!

BOARD OF DIRECTORS MEETING

The CAT Board of Directors (BOD) was called to order on November 5, 2007 at 7:20pm by President John Hughes. The meeting was begun at the Monterey Fisherman’s Grotto. In attendance were BOD members John Hughes, Michelle Sandberg, Nadina Giorgi, Dan Coleman, Trevor Gillis, and Kristina Takeshita. Also present were guest Vina Sphieler, meeting host Halle Weingarten (Forensic Alcohol Advisory), Ed Smith (Legislative Liaison), Paul Crowley (Vendor Liaison), and Jaime Lintemoot (Quality Assurance). BOD member Catherine Hamm was unable to attend.

Meeting co-host Halle Weingarten thanked Raymond Kelly for co-hosting the meeting, Raymond’s wife for assisting at the registration table and Paul Crowley for organizing the vendor support. Halle reported 46 pre-registered for Monday with 8-10 walk-ins. Tuesday numbers were expected to be the same. Halle also thanked UTAH for sponsoring speaker Marilyn Huestis. She mentioned that the meeting dates were chosen to avoid both holidays and the SOFT meeting, and that Michelle Sandberg negotiated great hotel rates for the meeting.

Halle suggested that the office be more clear with hosts about who they should contact for what (e.g. Vendor Coordinator about vendor requests rather than meeting host). She received meeting materials in a timely fashion.
A discussion of CAT membership included discussion of checking on dropped members for correct addresses, using Return Service for mailings to catch address changes, and adding an “I do not wish to renew my membership” choice on dues notices, all to help maintain an accurate membership list and retain members.

Vendor Coordinator

Paul Crowley reported 11 vendors at the meeting, including Draeger who showed up without pre-arrangement having registered as an attendee. Apparently the company has done this before. The board determined that Draeger will pay the difference between registration and vendor fee. Also, ABI attempted to attend as a vendor through the Member-at-large North after being turned down by the Vendor Coordinator. The board was reminded that vendors too late for one meeting should be offered preference at the next, in order to give all vendors fair time at the meetings.

John Hughes reminded the board that hosts must ensure that any invited vendor talks are applications and not sales talks, given by technical staff, and have educational content. Several has recently given essentially the same talk at successive meetings due to hosts being contacted by vendors and not checking the agendas of previous meetings.

The meeting was suspended at 7:50 to return to the hotel, and resumed at 8:10 pm.

Legislative Liaison

Ed Smith reported on AB1215, proposed PerSe DUI law. He reported some language changes, concerns about levels specified and effects on labs, funding issues since the law reported some language changes, concerns about levels.

Forensic Alcohol Advisory Chair

Jaime Lintemoot reported 36 participating labs for the CAT Survey. Wayne Co. Mi Medical Examiner hosted the summer survey sample, liver with target analytes amitryptyline, nortryptiline, diazepam, nordiazepam, morphine (real ME case).

Quality Assurance Chair

Halle Weingarten reported that the next meeting of the state committee was postponed due to the Calif. wildfires.

President

John Hughes proposed purchase of CAT knit shirts for sale to members at cost, and showed the current candidate choices in men’s and women’s: royal blue, placket-front short-sleeve knit, business-casual. He had conducted an informal survey of members during Oct and Nov at labs and at SOFT to arrive at the choice, over longsleeve or woven shirts. The best source appears to be the SOFT logo vendor, who has done a good job for SOFT and has good prices and embroidery. The graphic will be the CAT logo with “California Association of Toxicologists” text encircling it, in white. It was moved seconded and passed to place an initial order for about 40 shirts, and for CAT to subsidize the cost to less than $25. Non-board members were excused at 8:40 pm.

CAT Website

Current plans are to implement the online registration and dues payment system as soon as technically feasible. A quote is pending from SOFT/AAFS system designer Paul Lubbers. He has recommended that we move the site from Neiko in Memphis (where it was due to the previous designer) to CIT in Denver where his registration system operates. We hope to pilot the meeting registration for the February meeting, though probably not with live member registration but entering from mailed registrations. The system will print badges and registration list.

Michelle Sandberg has been updating the website on an interim basis but there have been problems posting the proceedings and presentations. She offered her husband Brett as an hourly-rate interim help with this until Nadina and Tim are up to speed and take this over. John will take this under advisement and possibly look for outside website firms to take this over. It was decided to discontinue posting both screen and printsize versions of the presentations, as a survey of the meeting indicated only a small number of members had viewed presentations in the last year. We will also remind members at the meeting of the Members-only password (which is published on the inside cover of each Proceedings!!).

CAT Office Discussion

In view of both the upcoming online registration system, and turnaround problems with the CAT office over the last several years with two different CAT assistants, it was suggested that CAT bring the office functions back into the organization to be handled by a member or members. Kristina Takeshita had previously offered to become the CAT Assistant. There was active discussion of possible problems with this, in terms of disruption of office function, possible conflict of interest of her serving as both MAL-S and CAT Assistant, and our lack of understanding of how much work and time is actually involved.

It was moved by Michelle Sandberg, seconded and passed (Coleman no, Takeshita obviously abstaining) to move the Assistant position to Kristina Takeshita for a trial period of two meetings (through fall 2008). John will send her the job description, and she will log the work and time spent. At the end of the trial period, the arrangement will be re-evaluated by the board.

John Hughes will communicate the decision to the current Assistant Lyn Alkan, and request that she stay on potentially toward event sponsorship.

In view of both the upcoming online registration system, and assumed a smooth transition and complete transfer of CAT materials. A new requirement for the CAT Assistant will be to attend at least one board meeting/year, for which CAT will cover expenses if necessary. This should help to better correct any problems with the CAT Office.

Vice President

Michelle Sandberg reported that she received complaints from some vendors in regards to the lower attendance at this meeting. After some discussion, it was moved (JH) seconded (KT) and passed to offer vendors at this meeting either one free meeting to be used within the next four, or a $600 credit toward event sponsorship.

Membership Secretary

Nadina Giorgi presented Dennis Jordan for member Emeritus status, which was approved by acclamation. She will present 5 associate and 2 full members at the business meeting for vote.
President – John Hughes

Website update. Online registration and dues payment
(work with webmaster Tim Appel and Membership Secretary Nadina Giorgi). Plans are proceeding for adding online registration and dues payment. Nadina and I met with SOFT/AAFS website programmer Paul Lubbers at TIAFT in Seattle. He has agreed to provide the following features for our website:
- online meeting registration, with payment by credit card
- online dues payment by credit card
- membership maintenance database accessible by the office and membership secretary from our website
- badges and meeting roster printed from registration/membership database for each meeting.

We are awaiting a quote from him to do this, re-using code he has written for SOFT and AAFS, both of which have agreed to let us use his system without payment to either organization which paid for its development. We hope to have this online for the February meeting registration; we were unable to do this for November meeting due to his commitments to the SOFT and AAFS meetings in October and February.

We will need to open a Verisign online payment account with CAT’s bank to do this. Treasurer Dan Coleman has already begun making those arrangements. Members who cannot pay with credit cards will still send registration and dues payments to the office.

CAT Website Update

We will likely move the website to a new hosting company in Denver which hosts the SOFT and AAFS websites. Paul Lubbers is local to and has dealt with this company for some time, and using this hosting service will simplify our rollout of the online payment systems.

The website will be updated at the move, using a standard tool like Microsoft Frontpage, to replace complicated and undocumented html code written by our previous website designer. This will facilitate maintenance over time with changes in persons responsible for the CAT website. Webmaster Tim Appel and Membership Sec’y Nadina Giorgi are pursuing educational opportunities in website design and tools to carry out this update.

CAT at SOFT

John Hughes announced CAT membership, meetings and activities at the SOFT business meeting in Raleigh NC, and thanked the SOFT board for allowing us to re-use the membership/registration system code.

CAT Logo Shirts

We hope to have men’s and women’s shirts for sale at the February meeting with the CAT logo. I have surveyed a number of members about color and style choices, and am awaiting quotes from SOFT’s logo item supplier and one of Agilent’s, for short-sleeve business-casual-style shirts in an attractive color with embroidered logo. These would be sold at cost, target price $25, and more could be ordered for members once the logo is set up by the supplier.

Vice President Michelle Sandberg

(paraphrasing by John Hughes from Michelle’s email) We will need some professional help updating the website due to the undocumented code written by our previous web designer. I will be taking time off for personal reasons in the next few months, and could use help also in updating the presentations on the website.

We need to begin serious plans for the CAT meeting in conjunction with SOFT2008 in Phoenix

Recording Secretary/Proceedings Editor Cathy Hamm

No report. I will be unable to attend the November 2007 meeting.

Membership Secretary Nadina Giorgi

For presentation at the November, 2007 CAT Meeting

The following applicants for membership are forwarded for Board of Directors recommendation and presentation for membership approval at the November, 2007 meeting.

Associate Membership

Roster Information:

- Members Name: Charmaine S. Losee
- Degrees: BS, Med Tech, Medical College of Virginia
- Name of Business: Navy Drug Screening Lab
- Business Address: 34425 Farenholt Ave, Ste 40
- San Diego, CA 92134
- Business Title: Chemist/Lab Certifying Official
- Business Phone: (619) 532-7742
- Fax: (619) 532-5187
- E-mail: charmaine.losee@med.navy.mil
- Mailing Address: 34425 Farenholt Ave, Ste 40
- San Diego, CA 92134

Roster Information:

- Members Name: Angela Stroman
- Degrees: BS, Biol. Sci., CSU Sacramento
- Name of Business: Contra Costa Co Sheriff’s Crime Lab
- Business Address: 1960 Muir Rd, Ste 201
- Martinez, CA 94553
- Business Title: Criminalistics Lab Aide
- Business Phone: (925) 313-2800
- Fax: (925) 313-2840
- E-mail: astro@so.cccounty.us
- Mailing Address: 1960 Muir Rd, Ste 201
- Martinez, CA 94553

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- Fax: (925) 313-2840
- E-mail: astro@so.cccounty.us
- Mailing Address: 1960 Muir Rd, Ste 201
- Martinez, CA 94553
Roster Information:
Members Name: Steven Wayne Fleming
Name of Business: Children’s Mercy Hospital
Business Address: Toxicology Lab
2401 Gillham Rd
Kansas City, MO 64108
Business Title: Clinical/Forensic Toxicologist II
Business Phone: (816) 234-3295
Fax: (816) 234-3794
E-mail: swfleming@smh.edu
Mailing Address: Lee’s Summit, MO 64081

Treasurer Dan Coleman

Many thanks to Kristina Fritz for her continuing support in the transition to Treasurer. There have been bumps in the road, but it seems to be smoothing.

Organization of the bank accounts has changed. Money is now being concentrated to maximize interest. This requires more “juggling” [President’s note inserted in publication: this has been approved by the Board to derive better income from excess CAT funds].

Veri-Sign with Bank of America has been investigated. It will take a couple of weeks to set up. Internet processing is the most expensive form of credit card payment. I have an estimate from the bank we can discuss.

Taxes were paid for the previous fiscal year.

TREASURER’S REPORT

Submitted by Dan Coleman

JUNE 2007 MEETING FINANCIAL SUMMARY

Income

- Pre-Registration $ 6,660.00
- On-Site Registration 1,200.00
- Vendor Support 6,450.00
Total Income: $14,310.00

Expenses

- Hotel Cost $ 9,476.05
- Friday Social Event 1,747.58
- Vendor Incentives Games 200.00
- AACC Activity Fee 170.00
- Board Meeting 22.85
- Speaker Gifts 140.00
- Meeting Supplies 105.25
Total Expenses: $11,861.73

Income Less Expenses: $2,448.27

SECOND QUARTER 2006
(09/01/06 – 11/30/06)

Checking Account

- Beginning Balance (09/01/06) $ 52,647.82

Income

- November 2006 Meeting 8,335.00
- Membership Dues 3,420.00
- June 2006 Meeting 180.00
- Donation 30.00
- Interest (Sept 4.28 + Oct 4.35 + Nov 3.28) 11.91
Total Income: $11,976.91

Expenses

- Credit Card (Proceedings/Mailings) 4,968.86
- CAT Assistant 1,500.00
- Reimbursement AACC (C. Hamm) 355.00
- AACC 160.00
- Reimbursement, J. Hughes 76.10
- (Portable storage devices)
- Reimbursement, L. Alkan (Office supplies) 41.09
- CAT Telephone (Monthly Service) 35.80
- Returned Check 75.00

Reclassification to Member Emeritus

Members Name: Dennis Jordan
Mailing Address: 7309 Circle Hill
Oakland, CA 94605
Phone: (510) 633-1722
Email: dbjordan@comcast.net
Member Since: 1973
The California Association of Toxicologists Proceedings Vol. 35:3 (November 2007)

<table>
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<td><strong>Ending Balance (11/30/06)</strong></td>
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**Money Market Account**

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<tr>
<td>Interest (Sept 5.68 + Oct 6.27 + Nov 5.06)</td>
<td>17.01</td>
</tr>
<tr>
<td><strong>Ending Balance (11/30/06)</strong></td>
<td>$ 14,311.83</td>
</tr>
</tbody>
</table>

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**Member-at-Large North, Trevor Gillis**

No report.

**Member-at-Large South, Kristina Takeshita**

No Report.

**COMMITTEE REPORTS**

**Legislative Liaison**

Submitted by Edwin Smith

The following are California State Bill that may be of interest to CAT members.

Complete information on the above bills can be found at www.leginfo.ca.gov/bilinfo.html.

Information on the “Forensic Alcohol Review Committee” can be found at www.dhs.ca.gov/fdb/asar/committee/default.htm.

**AB 1215 DUI Per Se limits for certain drugs of abuse.** The following is a portion of the bill. Please refer to the California State Bill website for updates and the complete bill language.

(e) (1) It is unlawful for a person to drive or be in actual physical control of a vehicle on a highway or on premises to which the public has access with an amount of prohibited substance in his or her urine or blood that is equal to or greater than the following:

- **A concentration of cocaine in the person’s urine of 150 nanograms per milliliter or in the person’s whole blood, blood serum, or plasma of 50 nanograms per milliliter.**
- **A concentration of cocaine metabolite in the person’s urine of 150 nanograms per milliliter or in the person’s whole blood, blood serum, or plasma of 50 nanograms per milliliter.**
- **A concentration of heroin in the person’s urine of 2,000 nanograms per milliliter or in the person’s whole blood, blood serum, or plasma of 50 nanograms per milliliter.**
- **A concentration of heroin metabolite (6-monoacetyl morphine) in the person’s urine of 10 nanograms per milliliter or in the persons whole blood, blood serum, or plasma of 10 nanograms per milliliter.**
- **A concentration of methamphetamine in the person’s urine of 500 nanograms per milliliter or in the person’s whole blood, blood serum, or plasma of 100 nanograms per milliliter.**
- **A concentration of phencyclidine (PCP) in the person’s urine of 25 nanograms per milliliter or in the person’s whole blood, blood serum, or plasma of 10 nanograms per milliliter.**

(2) In a prosecution under this subdivision, it is a rebuttable presumption that the person had at least equal to or greater than the requisite amount of any of the above-referenced prohibited substances in his or her blood or urine at the time of the performance of a chemical test within three hours after the driving.

- **Assembly Bill 851**: A pharmacist shall include a large print informational insert with any prescription drug dispensed that poses substantial risk to the person consuming the drug when taken in combination with alcohol or other medications, including prescription drugs and over-the-counter drugs, provided that the drug is determined by the board pursuant to subdivision (c) to be a drug or drug type for which this warning is appropriate. The insert itself shall warn the patient of the specific risk involved and may not satisfy this requirement by reference to an outside source of information, such as an Internet Web site.

- **Assembly Bill 1165**: This bill would additionally make it unlawful for a person who has been convicted of a violation of either of driving under-the-influence offences within 10 years to operate a motor vehicle at any time with a blood-alcohol concentration of 0.01 percent or greater, as measured by a preliminary alcohol screening test or other chemical test.

- **Assembly Bill 1367**: Addresses licensing and training of drug abuse counselors.

- **Assembly Bill 345**: Bill addresses underage drinking.

- **Assembly Bill 421**: Describes DMV notification of DUI offenses.

**Lending Library**

Submitted by Catherine Hamm

The CAT should consider discussing the future and purpose of the Lending Library. Since it is rapidly becoming obsolete, perhaps we should consider renaming it as the “CAT Archives.”

**AACC/Continuing Education**

Submitted by Kenton S. Wong

The seventh Forensic Alcohol Review Committee (FARC) Meeting to amend Title 17 was to be held on August 28th, 2007 but was postponed as the California Department of Public Health (CDPH, formerly DOHS) was purportedly working on having a retired Regulation Coordinator hired/assigned to replace the departed Regulations Coordinator Cathy Ruebusch, RN, from the Office of Legal Services, to be present in order to provide the necessary legal guidance required throughout the amendment process. It was again postponed on October 24th, 2007 due to the Southern California fires, which made travel extremely difficult for committee members. Further details of the Committee can be found at: www.dhs.ca.gov/fdb/asas/committee/default.htm.

Also of general information for all of the CAT Membership who testify in DUI trials/court hearings, it should be known that a "normal" 12 oz beer is no longer so. Japanese beer companies are now producing BIG cans of beer from 330, 350, 500, and 650 ml all the way up to a 2-liter beer can of Asahi, Sapporo, etc.
I also suspect that with commercial competition, it's not a stretch to conceive that it's likely US manufacturers won't far behind; they are not to be outdone.

CAT thanks Dr. Don Frederick, Chair of the AACC TDM/Toxiology Division for providing grant funding to CAT to pay for the 2-Day Activity Fee for the 11/05-06/07 Monterey Meeting! This will be announced at the Business Meeting.

**Bylaws and Records, Review and Revision**
Submitted by Sarah Kerrigan
No requests were received for document updates; none were made.

**Forensic Alcohol Advisory**
Submitted by Halle Weingarten
The Forensic Alcohol Review Committee, which was tentatively scheduled to meet in August or September, did have a meeting set for October 24. However, because of the fires in southern California, the meeting was postponed. Meeting announcements can usually be found at the DHS web site.

**Quality Assurance**
Submitted by Jaime Lintemoot

**Participation:**
There are currently 36 Laboratories participating in the CAT Survey Program.
- 17 laboratories are from California
- 2 laboratories are from Canada
- The remaining 17 laboratories are from other states.

**Past Surveys:**
Spring 2007 – Dan Coleman, California Dept. of Justice, CA
  - Specimen – Urine
  - Supplemented Drugs
    - 0.40 mg/L Zopiclone (Eszopiclone)
    - 0.267 mg/L Lorazepam (Conjugated)
    - 1.33 mg/L Gabapentin

**Current Surveys:**
Summer 2007 – Brad Hepler & Denice Team, California Dept. of Justice, CA
  - Specimen – Liver (from an actual ME case)
  - Drugs-Amitriptyline, Nortriptyline. Diazepam, Nordiazepam and Morphine

**Future Survey Hosts:**
- Fall 2007 – William Dunn, Regional Medical Examiner Office, NJ
- Winter 2008 – Reinaldo Fonseca, Office of Chief Medical Examiner, NY
- Spring 2008 – Margaret Beamer, NMS Labs, PA
- Summer 2008 – Laureen Marinetti, Montgomery County Coroner’s Office, OH

**Research Grant**
Submitted by Rob Fitzgerald
The CAT does have funds available; anyone interested in applying should consult the research assistant grant section of the CAT website.

**Drugs and Driving**
Submitted by Jennifer Valdez

The National Safety Council’s Committee on Alcohol and Other Drugs’ Subcommittee on Alcohol Technology, Pharmacology, and Toxicology just released a recommendation document titled “Acceptable Practices for Evidential Breath Alcohol” which completes their task of outlining a Model Evidential Roadside Breath Alcohol Testing Program. This document should be available on the National Safety Council’s website.

On November 6, 2007, an informational hearing on the topic of AB 1215, an act that would amend Section 23152 of the Vehicle Code and change the way individuals are prosecuted in driving under the influence of drugs cases will take place in Sacramento. Scientists representing organizations from across the state of California are expected to attend and possibly testify regarding the impact and value of this bill.

**BUSINESS MEETING**

The meeting was called to order November 6, 2007 at 9:35 am by President John Hughes. He thanked meeting hosts Halle Weingarten and Ray Kelly. A decision was made to create a business casual shirt for CAT that will cost members $25 or less. A design contest for a CAT t-shirt is ongoing and Dan Coleman is the contact. Website upgrade with online registration and dues continues to move forward. The website needs to be revamped first. Two board members, Nadina Giorgi and Tim Appel, are in training to create the website. John thanked Michelle Sandberg for her hard work maintaining the current website. John related that he had updated SOFT on CAT changes; that CAT has gone to three meetings per year and website updates.

**Vice President Michelle Sandberg** discussed upcoming meetings. She is looking for volunteers to host meetings. Volunteers are responsible for only the technical program of the meeting, due to the work of the Vendor Coordinator and Hotel Liaison. The next meeting is Tuesday and Wednesday, February 5-6, 2008 in Redondo Beach. It will be hosted by Pacific Toxicology Labs/ Forensic Toxicology Associates and John Treuting and Associates and will focus on DUl and prescription drugs. The June 2008 meeting will be hosted by Ventura County Crime Lab. The following meeting will be a joint SOFT/CAT meeting in October in Phoenix, AZ. CAT is looking for volunteers to help with this meeting. The CAT portion could be held the Saturday after the SOFT meeting or on a half day the Sunday before. A show of hands was 50/50 on which day. A recommendation was made to start advertising to SOFT members now. It was pointed out that SOFT has some prepared workshops that could serve as the technical portion of the meeting. Due to the low attendance at this meeting, the vendors were offered credit for another upcoming meeting.

**Membership Chair Nadina Giorgi** presented five candidates for associate membership and two candidates for full membership. The approval of associate and full members was moved, seconded, and passed by a voice vote. The list of new members is found in the Proceedings. She also announced that one request for reclassification to member emeritus was approved by the Board at the Board meeting on June 8, 2007 for Dennis Jordan. Ray Kelly suggested that the membership is low and perhaps we should be promoting CAT more; maybe through a mailing.

**John Hughes**, reporting for Proceedings Secretary Cathy Hamm, related that the Proceedings are going well. The posting of the presentations to the website is currently behind. A survey by attendees by show of hands to find out how many people have looked at the presentations online produced
approximately 5 positive responses. A show of hands to see how many people know the password to access the member only area of the website resulted in about 50% positive response.

Treasurer Dan Coleman reported that the transition of the treasurer duties from Kristina Fritz has been smooth. Some money has been moved into a no-risk CD to maximize interest earnings for the organization. There was a small profit from the June meeting. Dan asked that t-shirt designs be submitted by the end of the year.

John Hughes gave a short report for the Drugs and Driving committee. There was to be a hearing for AB 1215 which is a per se law modeled after a similar law in Nevada. Ray Kelly added that it is now easier to obtain a conviction in Nevada with the new law there. The presence of a drug is “internal possession” not necessarily “impairment.” John stated that CAT will not make a position statement on AB 1215, but he encouraged members to contact their legislators.

Forensic Alcohol Committee Chair Halle Weingarten reported that the Forensic Alcohol Committee is working on changing regulations. This has been in progress for over two years. The October meeting of the committee was cancelled due to the wildfires.

Quality Assurance Chair Jaime Lintemoot reported that the Summer 2007 survey was prepared by Wayne County Medical Examiner using an actual case. The liver homogenate contained amitriptyline, nortriptyline, diazepam, Nordiazepam and morphine.

Continuing Education Chair Kenton Wong mentioned that a recent change in California Dept. of Health regulations now require 24 CEUs in a 2-year period. He also added that a 12 ounce beer is no longer the standard size; it is available in larger sizes in other countries.

The meeting was adjourned to the scientific sessions at 10:20 am.
### Monday, November 5, 2007 – Workshop: Ethics

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Organization</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vina R. Spiehler, PhD, DABFT</td>
<td>Spiehler and Associates</td>
<td>• What the Heck is Ethics?</td>
</tr>
<tr>
<td>Raymond C. Kelly, PhD, DABFT</td>
<td>Tox-Tech</td>
<td>• Ethics in an Adversarial System: Interface between Science and the Law</td>
</tr>
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</table>

### Tuesday, November 6, 2007 – CAT Quarterly Meeting

<table>
<thead>
<tr>
<th>Speaker</th>
<th>Organization</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vina R. Spiehler, PhD, DABFT</td>
<td>Spiehler and Associates</td>
<td>• Case of Marijuana Psychosis</td>
</tr>
<tr>
<td>Marilyn A. Huestis, PhD</td>
<td>National Institute on Drug Abuse</td>
<td>• Analytical Method Validation: How and Why it is Vital</td>
</tr>
<tr>
<td>Maria DeSousa</td>
<td>California Department of Health</td>
<td>• Updates from the California Department of Health</td>
</tr>
<tr>
<td>Raymond C. Kelly, PhD, DABFT</td>
<td>Tox-Tech</td>
<td>• “I Ate Apples and Now I’m Flunking My Drug Screen?”</td>
</tr>
<tr>
<td>Halle Weingarten, B.A., DABFT</td>
<td>Independent Toxicology Services</td>
<td>• Case Report: Ethyl Glucuronide</td>
</tr>
<tr>
<td>Halle Weingarten, B.A., DABFT</td>
<td>Independent Toxicology Services</td>
<td>• An Unsolved Mystery</td>
</tr>
</tbody>
</table>
Case History:
The history in this case is based upon an actual case. As noted it was reported in the survey as follows: At 10PM, on a well being check, the remains of a 55 year old white male were found supine on the living room floor of his apartment. He was clad in hospital “scrubs”. The resuscitation apparatus was still in place when the investigator arrived on scene. The decedent was cool to the touch and limp. The apartment was messy and at about 85 °F. Per the police officer on the scene, the decedent had been released from a local hospital in the AM with the diagnosis of acute bronchitis. He had a history of back pain. A “light-red liquid” and “pills” were found at the scene.

There were no signs of trauma or foul play.

Autopsy Findings & Cause of Death:
The case was initially signed out as a Pending Death Certificate (DC): pending toxicological studies. This was based upon initial impression and determination made following an autopsy and Medical Examiner review on the day that the case presented at the office.

Following the toxicological evaluation of the case, of blood (not surveyed) and liver homogenate drug concentration, it was determined that laboratory analyses were remarkable for the presence of diazepam, amitriptyline, nortriptyline, and morphine. Following additional medical history review, the Medical Examiner ruled the cause of death (COD) to be, death due to a multiple-drug-intoxication (MDI), and the manner of death (MOD) was ruled accident.

Specimens:
For this survey, 2 tubes 6-ml each liver homogenate (dilution factor X 10) preserved with sodium fluoride were submitted to participant laboratories for analysis.

Sample Prepared By:
Brad Hepler, Ph.D., DABFT
Denice Teem
Wayne County Medical Examiner’s Office
1300 E Warren
Detroit, MI  48207
Email: dteem@co.wayne.mi.us
Phone: (313) 833-2548
Fax: (313) 833-2534

Sample Preparation:
A liver homogenate was prepared by taking 1g of liver and adding it to 9 g of DI water resulting in a X 10 dilution. NaF was added at 1% w/v as a preservative.

Comments:
The choice of specimen and amount of specimen provide was intentional.

Liver specimen evaluations are useful in supporting or refuting the context of blood findings in a postmortem laboratory. The issues of anti-mortem distribution, postmortem redistribution, and postmortem release in interpretative toxicology are important in establishing drug or more likely multiple drug intoxication as a COD\(^1\). When there are no other interceding COD issues the support of elevated central compartment blood findings, as well as, peripheral blood site findings can be accomplished through use of liver studies. In the current context, elevations of blood tricyclic (skewed towards the parent), and morphine concentrations were substantiated by the liver findings.

The amount of specimen provided was specific to real world circumstances; the postmortem laboratory is not always able to dictate the amount of material received of submitted casework. Admittedly, laboratories do the best they can relative to the amount of individual specimens received. Usually, screening tests utilizing immunoassay methods conserve specimen and are a useful device to evaluate a tissue specimen relative to possible findings. Laboratories should consider validating these types of methods for evaluation of tissue specimens. Additionally, usually there are other matrices available for initial insights into what is present in a given case (i.e. blood and/or urine etc.) that can lead to directed testing in tissues such as liver. In the current context, however, the challenge was to use the laboratory’s resources as prudently as possible to come up with useful data.

The fact that some did not receive the mailings in a timely fashion is also a real world issue. Laboratories do not always receive specimens in a timely manner; some analytes are more stable than others, regardless, the spreadsheet of results
(Table 1) and the values determined reflect the “real-world” of comparative analysis reality. As this sample preparation was a X 10 dilution, results should have been multiplied by this factor prior to reporting.

**Qualitative Data:**

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<thead>
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<th>General Laboratories</th>
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<tr>
<td>Participation</td>
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<td>22 / 33</td>
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<tr>
<td>Amitriptyline</td>
<td>3 / 3</td>
<td>19 / 22</td>
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<tr>
<td>Nortriptyline</td>
<td>3 / 3</td>
<td>17 / 22</td>
</tr>
<tr>
<td>Diazepam</td>
<td>3 / 3</td>
<td>17 / 22</td>
</tr>
<tr>
<td>Nordiazepam</td>
<td>3 / 3</td>
<td>17 / 22</td>
</tr>
<tr>
<td>Morphine</td>
<td>2 / 3</td>
<td>17 / 22</td>
</tr>
</tbody>
</table>

There were no “bonus drugs” detected by any of the Reference Laboratories.

**Overall Statistics (Reference & General Laboratories Combined-One laboratory omitted as it performed only a limited screen on the specimen submitted)**

- 69% 25 of 36 laboratories participated
- 60% 15 of 25 laboratories detected all five drugs
- 76% 19 of 25 laboratories detected four or more drugs
- 84% 21 of 25 laboratories detected three or more drugs
- 88% 22 of 25 laboratories detected two or more drugs
- 96% 24 of 25 laboratories detected one or more drugs
- 0% 0 of 0 laboratories detected zero drugs

**Quantitative Results (Reference & General Laboratories Combined)**

(There are no “target” values since materials utilized were taken from an actual ME case)

- 17 laboratories submitted quantitative results for Amitriptyline
  - Range = 1.6 - 19 mg/kg
  - Mean = 12.1 mg/kg
  - S.D. = 4.11

- 16 laboratories submitted quantitative results for Nortriptyline
  - Range = 1.5 – 7.1 mg/kg
  - Mean = 4.9 mg/kg
  - S.D. = 1.32

- 17 laboratories submitted quantitative results for Diazepam
  - Range = 0.21 – 1.45 mg/kg
  - Mean = 0.59 mg/kg
  - S.D. = 0.28

- 18 laboratories submitted quantitative results for Nordiazepam
  - Range = 0.96 – 3.89 mg/kg
  - Mean = 1.54 mg/kg
  - S.D. = 0.65

- 18 laboratories submitted quantitative results for Morphine (free)
  - Range = 0.353 – 4.3 mg/kg
  - Mean = 1.80 mg/kg
  - S.D. = 0.97

Two laboratories reported meprobamate at < 5.0 mg/kg and 0.48 mg/kg (meprobamate was present in the liver specimen at a concentration of non-toxicological significance i.e. compliance was not an issue in this case). This was considered a “bonus” drug. Two laboratories reported total morphine at 2.9 mg/kg and 0.887 mg/kg. Temazepam and oxazepam were evaluated with oxazepam found to be present below the reporting limit, 0.20 mg/kg, and temazepam not detected. Additionally two laboratories reported the presence of acetaminophen (by GC/MS) and one the presence of propoxyphene (by EMIT only).

## Table 1: Tabulation of Data Reported

<table>
<thead>
<tr>
<th>Sample</th>
<th>Amitriptyline</th>
<th>Nortrip.</th>
<th>Diazepam</th>
<th>Nortiaz.</th>
<th>Morphine</th>
<th>Other</th>
<th>Screen</th>
<th>Confirmation</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>13.3 mg/kg</td>
<td>3.6 mg/kg</td>
<td>&lt; LOQ</td>
<td>1.3 mg/kg</td>
<td>1.6 mg/kg</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R2</td>
<td>19 mg/kg</td>
<td>5.7 mg/kg</td>
<td>&lt; 1.0 mg/kg</td>
<td>1.3 mg/kg</td>
<td>Free-1.9 mg/kg</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>R3</td>
<td>13 mg/kg</td>
<td>4.7 mg/kg</td>
<td>0.5 mg/kg</td>
<td>1.6 mg/kg</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>QNS to quant</td>
<td>5.55 mg/kg</td>
<td>QNS to quant</td>
<td>1.3 mg/kg</td>
<td>1.5 mg/kg</td>
<td>GC/MS, ELISA</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>QNS to quant</td>
<td>14 mg/kg</td>
<td>5.4 mg/kg</td>
<td>0.51 mg/kg</td>
<td>1.3 mg/kg</td>
<td>1.2 mg/kg</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>QNS to quant</td>
<td>14.7 mg/kg</td>
<td>6.1 mg/kg</td>
<td>1.1 mg/kg</td>
<td>Meprobamate 0.48 mg/kg</td>
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<tr>
<td>16</td>
<td>13.6 mg/kg</td>
<td>5.5 mg/kg</td>
<td>0.61 mg/kg</td>
<td>1.32 mg/kg</td>
<td>Free- 1.8 mg/kg</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>11.6 mg/kg</td>
<td>4.7 mg/kg</td>
<td>&lt; 2.5 mg/kg</td>
<td>&lt; 2.5 mg/kg</td>
<td>Acetaminophen &lt; 100 mg/kg, meprobamate &lt; 5.0 mg/kg</td>
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</tr>
<tr>
<td>18</td>
<td>Present</td>
<td>Present</td>
<td>1.45 mg/kg</td>
<td>3.89 mg/kg</td>
<td>Free- 1.67 mg/kg</td>
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<tr>
<td>19</td>
<td>Present</td>
<td>Present</td>
<td>14 mg/kg</td>
<td>6.5 mg/kg</td>
<td>0.61 mg/kg</td>
<td>1.0 mg/kg</td>
<td>Total- detected</td>
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</tr>
<tr>
<td>20</td>
<td>17 mg/kg</td>
<td>5.2 mg/kg</td>
<td>0.69 mg/kg</td>
<td>1.8 mg/kg</td>
<td>Free- 0.353 mg/kg</td>
<td></td>
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<tr>
<td>21</td>
<td>present</td>
<td>present</td>
<td>17 mg/kg</td>
<td>6.5 kg/kg</td>
<td>5.2 mg/kg</td>
<td>0.69 mg/kg</td>
<td>Total morphine 0.887 mg/kg</td>
<td>Immunoassay</td>
</tr>
<tr>
<td>22</td>
<td>12 mg/kg</td>
<td>4.8 mg/kg</td>
<td>Detected (below LOQ)</td>
<td>Detected (below LOQ)</td>
<td>1.6 mg/kg</td>
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<tr>
<td>UR</td>
<td>1.6 mg/kg</td>
<td>0.374 mg/kg</td>
<td>1.111 mg/kg</td>
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</tr>
</tbody>
</table>

**Notes:**
- LOQ: Limit of Quantitation
- GC/MS: Gas Chromatography/Mass Spectrometry
- ELISA: Enzyme Linked Immuno Sorbent Assay
- HPLC: High Performance Liquid Chromatography
- GC/NPD: Gas Chromatography/Nitrogen Phosphorus Detector
- Immunoassay: Immunoassay
- KIMS: King-Imported Mass Spectrometry
- QNS: Quantitation Not Selected
- GC/TOF: Gas Chromatography/Tandem Mass Spectrometry
- LC/MS: Liquid Chromatography/Mass Spectrometry
- GC/EC: Gas Chromatography/Electron Capture
- GC/MS: Gas Chromatography/Mass Spectrometry
- LC/MS/MS: Liquid Chromatography/Mass Spectrometry/Mass Spectrometry
Table 1: Tabulation of Data Reported (continued)

<table>
<thead>
<tr>
<th></th>
<th>Amitriptyline</th>
<th>Nortrip.</th>
<th>Diazepam</th>
<th>Nordiaz.</th>
<th>Morphine</th>
<th>Other</th>
<th>Screen</th>
<th>Confirmation</th>
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</thead>
<tbody>
<tr>
<td>29</td>
<td>Present</td>
<td></td>
<td></td>
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<td></td>
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<td>EMIT, GC/MS</td>
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<tr>
<td>30</td>
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</tr>
<tr>
<td>31</td>
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</tr>
<tr>
<td>32</td>
<td>7.83 mg/kg</td>
<td>3.32 mg/kg</td>
<td>0.51 mg/kg</td>
<td>1.61 mg/kg</td>
<td></td>
<td></td>
<td>ELISA</td>
<td>GC/MS</td>
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</tr>
<tr>
<td>34</td>
<td>10.2 mg/kg</td>
<td>4.6 mg/kg</td>
<td>&lt; 1 mg/kg</td>
<td>1.46 mg/kg</td>
<td>2.14 mg/kg</td>
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<td>EMIT</td>
<td>LC/MS, GC/MS</td>
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<tr>
<td>35</td>
<td>15 mg/kg</td>
<td>4.5 mg/kg</td>
<td>0.61 mg/kg</td>
<td>1.5 mg/kg</td>
<td>1.37 mg/kg</td>
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<td>ELISA, GC/MS</td>
<td>GC/NPD, GC/MS</td>
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<tr>
<td>36</td>
<td>11.3 mg/kg</td>
<td>5.0 mg/kg</td>
<td>0.5 mg/kg</td>
<td>1.5 mg/kg</td>
<td>1.3 mg/kg</td>
<td></td>
<td>GC/NPD, EIA</td>
<td>GC/MS</td>
</tr>
</tbody>
</table>


"Simple and sensitive determination of Δ9-tetrahydrocannabinol, cannabidiol and cannabinol in hair by combining silylation, headspace


UPDATE OF MEMBERSHIP/ADDRESS DATA

For change of mailing address and/or business information.

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LYN ALKAN
CAT Assistant
4951 Flower Court
Rohnert Park, CA 94928

Member Name: ____________________________________________

Mailing Address: __________________________________________

________________________________________________________________

Business Address, if different from mailing address (NOTE: Business address is published in the annual roster):

________________________________________________________________

________________________________________________________________

Business Phone: ________________  FAX: ________________  E-mail: __________________________

Professional Title: __________________________________________

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