



the official quarterly
newsletter of the American
College of Medical Toxicology

American
College of
Medical
Toxicology

Editor

Leslie R. Dye, MD, FACMT

513-281-3400

ldye@livinglonger.com

Spring
2004

President's Report

Michael J. Kosnett, MD, MPH, FACMT



In my first message as President in the fall of 2002, I wrote of our strategic plan to increase the visibility and involvement of ACMT and of medical toxicologists in national programs and policies involving health-related toxicological issues. Although the need was particularly prominent with respect to preparedness for chemical terrorism, our goal extended to multiple areas of public health and clinical practice. I am pleased to report, a year and half later, that the College has made great progress in placing medical toxicology on the national radar screen.

ACMT's cooperative agreement with the Agency for Toxic Substances and Disease Registry has been a major springboard for successful action. With funding from ATSDR, ACMT developed a unique course entitled "Chemical Agents of Opportunity: The Consequences of Terrorist Use of Toxic Industrial Chemicals". Rather than covering WMD agents such as sarin and mustard gas, the subject of many other counter-terrorism courses, ACMT's unique course focused on industrial materials such as cyanide, methyl bromide, chlorine and heavy metals that are widely available across the country. Our initial course, delivered before a full auditorium of public health officials at CDC headquarters in Atlanta last spring, was very well received. **In October 2003, ACMT faculty presented the course to an audience of 280 health professionals and public health officials in Washington, DC, including numerous**

continued on page 9

ACMT Briefs Federal Officials and Congressional Staff on Chemical Agents of Opportunity for Terrorism

Paul M. Wax, MD, FACMT

In recent months, ACMT has put on two courses in Washington, DC directed at Federal Agencies and Congressional staffers.

"Chemical Agents of Opportunity for Terrorism: The Medical and Psychological Consequences of TICs (Toxic Industrial Chemicals) and TIMs (Toxic Industrial Materials)" was offered on October 28, 2003 at the Hilton Crystal City in Arlington, Virginia. This full day course was organized in conjunction with ATSDR and EPA. 250 people attended the course. Many federal agencies were represented including Homeland Security, Health and Human Services (including HRSA and FDA), Interior, Veterans Affairs, Agriculture, Justice, EPA, and FBI. Other registrants came from the White House Office of Science and Technology, Defense Threat Reduction Agency, and all military branches.

continued on page 4



Michael Kosnett, Paul Wax, Keith Burkhart, Curtis Snook, Steven Curry, Lewis Nelson, and Mark Kirk arrive at the Capital to brief Congressional Staffers on Chemical Agents of Opportunity

EM Resident Scholarship Recipients Offer Personal Perspectives on Chicago NACCT

The Michael P. Spadafora scholarship, developed to encourage emergency medicine residents to pursue medical toxicology fellowships, is jointly funded by SAEM and ACMT. 2003 was the first year the scholarship was awarded, allowing two emergency medicine residents to attend the national meeting in Chicago. Both present a summary of their experiences below.

Kjell Lindgren MDMS
Hennepin County Medical Center,
Minneapolis, Minnesota

Chicago was busy last fall. Heartbroken hosts to baseball's upstart and eventual World Champion Florida Marlins, the "Second City" also hosted the 2003 North American Congress of Clinical Toxicology's annual meeting. And while this important annual gathering lacked the bombast of Sammy Sosa's bat, the mystique of a caprine curse or even national television coverage, the NACCT fielded a terrific line-up of research presentations for its own "fall classic".

Two hundred and sixty five abstracts were selected for poster and platform presentations, and topics ranged from all realms of clinical toxicology. With such a large meeting and so many abstracts, one cannot hope to summarize all of the important research being accomplished. As such, this article will simply touch on a few presentations that were especially interesting or clinically pertinent.

The New Coke. Body-stuffers are very spontaneous individuals who swallow (often poorly wrapped) cocaine in an attempt to hide evidence - with the unguarded optimism that everything will come out OK in the end. While the literature does not define a set observation period for the acute presentation of these patients, many clinical centers will watch the asymptomatic patient for 6 hours before discharging them to their own care. Yao *et al.* provide an account of a 26 year old male who presented 90 minutes after ingesting 5-8 packets of rock cocaine. The patient presented with normal vital signs, was treated with activated charcoal and polyethylene glycol, and remained well until 7.5 hours post-ingestion when he became symptomatic with hypertension, tachy-

continued on page 11

Jeffrey D. Ferguson, MD.
University of Virginia Health System, Charlottesville, Virginia

How Moonshine Took Me to Chicago

The 2003 North American Congress of Clinical Toxicology was held in Chicago, Illinois this past September. I was able to attend the meeting thanks to the Michael P. Spadafora Medical Toxicology Scholarship. This was the first year the scholarship was awarded and was a collaboration of the Society of Academic Emergency Medicine and the American College of Medical Toxicology (ACMT).

Due to clinical responsibilities I was unable to attend the ACMT Pre-Symposium meetings. However, my experiences with the rest of the conference were well worthwhile.

The CPC competition set the tone of the conference for me as cases involving unknown poisons were presented with interjections from clinical toxicologists. They dissected each case, forming a differential diagnosis and paring down their opinion based on the revealed information. I was familiar with this format from previous CPC conferences, but was amazed by the clinical acumen of the presenters as they outlined their approach to the case then teased out critical information to decide on the right diagnosis and management. Along with being educational the presenters did an excellent job at making their presentations colorful and humorous, drawing a room-filling crowd.

The following four days were filled with lectures and workshops from the leading organizations of clinical toxicology and poison control centers from North America and Europe. These talks presented the most recent data of the profession covering consensus views regarding treatment and management guidelines, toxins that present new occupational dangers, and lessons learned from disasters

continued on page 9

Board of Directors

President

Michael J. Kosnett, MD, MPH,
FACMT

Vice President

Keith K. Burkhart, MD, FACEP,
FACMT

Secretary-Treasurer

Paul M. Wax, MD, FACMT

Past-President

Robert S. Hoffman, MD,
FACMT

Stephen Borron, MD, FACMT

Erica Liebelt, MD, FACMT

Thomas G. Martin, MD, MPH,
FACMT

Kevin Osterhoudt, MD, FACMT

Lewis S. Nelson, MD, FACMT

Curtis P. Snook, MD, FACMT

ACMT Office:

The American College of
Medical Toxicology
11240 Waples Mill Road
Suite 200
Fairfax, Virginia 22030
Phone: (703) 934-1223
Fax: (703) 359-7562
E-mail: info@acmt.net
www.acmt.net

ACMT Project to Develop Tool for Assessing Community Preparedness for Mass Chemical Exposures

ACMT's cooperative agreement with ATSDR is supporting the development of a Community Chemical Hazard Assessment Survey designed to assist local governments and hospitals to improve their readiness to respond to major chemical accidents and releases. Under the co-direction of ACMT member **Mark Kirk, MD** of the University of Virginia, the project will create a "toolbox" communities can use to examine chemical risks specific to their immediate environment. Communities, first responders and hospitals will receive guidance in learning which chemicals produced, stored or transported in their community pose the greatest risk to human health. Factors in the assessment will include the quantity of the agents, their toxicity, their proximity to the local population, and the security in which they are maintained.

A knowledge assessment tool accompanying the hazard assessment will examine the familiarity of local agencies and hospitals with the health risks posed by selected chemicals located in their catchments. A data bank of questions will examine the extent to which first responders and hospital personnel are trained in the recognition of relevant toxic

syndromes, the use of appropriate self-protection and decontamination procedures, and the use of specific antidotes and treatment.

Dr. Kirk and his collaborators, **Dr. Michael Deaton** and **Dr. Steven Frysinger** of James Madison University (JMU), plan to test pilot the survey among first responders and hospital-based physicians and nurses located in Rockingham County and the city of Harrisonburg, Virginia. In a recent presentation at the National Environmental Health Conference in Atlanta, Dr. Kirk noted that the assessment survey would identify those areas where a community is most vulnerable and least prepared. By matching resources with an accurate vulnerability assessment, a community can focus training, guide the purchase of medical supplies and antidotes, create a more rapid and coordinated response, and develop preventive measures for its most vulnerable areas.

With seed money provided by the ACMT - ATSDR cooperative agreement and a related JMU project, the investigators hope to have preliminary data from the pilot test available by September 2004. Future funding will be sought to refine the assessment tool and extend its implementation to other regions and localities.

ACMT Teams with Department of Defense and Other Feds for Toxicology and Risk Assessment Conference in Cincinnati

ACMT presented a modified version of the Agents of Opportunity course entitled "**Toxic Industrial Chemicals (TICs) and Toxic Industrial Materials (TIMs) as Terrorist Threats**" at the 2004 Toxicology and Risk Assessment Conference of the TriService Toxicology consortium. ACMT was welcomed as an official co-sponsor of the conference, joining the toxicology research and preventive health units of the Army, Navy and the Air Force (the TriServices), ATSDR, NIOSH, EPA, and the National Research Council. Now in its 38th year, the conference is the federal government's oldest on-going toxicology assembly. Over 250 toxicologists and risk assessors from the public and private sectors attended the meeting, which was held from April 26 to April 30, 2004 in Cincinnati.

ACMT presentations at the TICs and TIMs session featured **Paul Wax** speaking on "*Current Vulnerabilities: An Historical Perspective*," **Lewis Nelson** on "*The Clinical Toxicology of Chemical Terrorism*," and **Mark Kirk** lecturing on "*Observed Behaviors after Mass Chemical Exposures*." ACMT President, **Michael Kosnett**, was invited to offer welcoming remarks at the opening plenary session. ACMT's medical toxicology perspective provided a new and complementary component to the conference, which had traditionally

attracted a predominantly non-clinical audience. The mid-year meeting of the ACMT Board of Directors was held immediately prior to the conference at the same venue, allowing members of the Board to attend conference functions and informally introduce medical toxicology to the attendees. ACMT's presence was warmly received, and plans are underway for ACMT to co-sponsor the 2005 conference and contribute additional clinically focused sessions.

Cincinnati is the headquarters of several key divisions of the National Institute for Occupational Safety and Health (NIOSH), including the Education and Information Division (EID), the Division of Surveillance, Hazard Evaluations, and Field Studies (DSHEFS), and the Division of Applied Research and Technology (DART). A delegation of ACMT board members, including **Stephen Borron**, **Michael Kosnett**, **Erica Liebelt**, and **Curtis Snook**, met with NIOSH officials during the week to plan future collaborative activities. **Dr. Michael Ottlinger**, a NIOSH senior toxicologist well known to many ACMT members through his regular attendance at NACCT, and **Dr. Jeffrey Nemhauser**, an ACMT member working in DSHEFS, have been instrumental in facilitating ACMT's emerging partnership with NIOSH.

Nominations Invited for 8th Annual Ellenhorn Award

The American College of Medical Toxicology is soliciting nominations for the Eighth Annual Matthew J. Ellenhorn Award for Excellence in Medical Toxicology to be presented at the North American Congress of Clinical Toxicology in Seattle, 2004.

Purpose

The College established the Matthew J. Ellenhorn Award in 1996. Its purpose is to honor an individual who has made extraordinary contributions to the field of Medical Toxicology. Such contributions may include teaching, clinical practice, research, or service to the discipline or the College.

Nominations

Letters of nomination should have specific and detailed information as to the nominee's contributions to the field of Medical Toxicology. In order to provide the most information to the Nominating Committee, letters should be at least one page in length and be accompanied by a copy of the nominee's CV. Letters of nomination for the 2004 Award may be submitted by members of the College and should be received by **June 31, 2004**.

Send letters of nomination to:

Awards Committee
American College of Medical Toxicology
11240 Waples Mill Road, Suite 400
Fairfax, Virginia 22030

Or preferably by E-mail to: Info@acmt.net.

Award Presentation

The recipient will be recognized at the annual meeting of the North American Congress of Clinical Toxicology and will deliver a keynote address on a topic of his or her choice.

About Matthew J. Ellenhorn

Dr. Ellenhorn (1923-1996) was a multi-talented physician and Medical Toxicologist with a distinguished career as an educator and clinician that touched many disciplines. He received his MD from The University of Southern California and trained in Internal Medicine at the University of Chicago and University of California, San Francisco. He served as Chief of the U.S. Army Cold Injury Research Laboratory, Chief of the New Drug Surveillance Branch at the Food and Drug Administration, and on the teaching faculties of the George Washington School of Medicine, University of Southern California School of Pharmacy, and University of California, Los Angeles School of Medicine. Dr. Ellenhorn also maintained a busy clinical and consulting practice in Medical Toxicology in the Los Angeles area. He was an early member of the American Board of Medical Toxicology, an examiner for the Board's qualifying exam, and an active contributor to toxicology literature and the annual toxicology meeting. The textbook, *Medical Toxicology: Diagnosis and Management of Human Poisoning*, originally co-authored by Donald Barceloux, MD, was a standard for the field and a tribute to his remarkable breadth of knowledge and clarity of thought.

ACMT Presents Two Courses in Washington, DC

continued from page 1

Featured ACMT speakers included **Edward Cetaruk, Steven Curry, Mark Kirk, Michael Kosnett, Tom Martin, Lewis Nelson, Curtis Snook, and Paul Wax**. The topics included:

- *Toxic Warfare: Looking Beyond Conventional Chemical Weapons*
- *The Clinical Neurotoxicology of Chemical Terrorism*
- *Toxic Gases in Your Community, Why Are Cyanide and Fumigants So Worrisome, Food and Water as Vehicles for Chemical Terrorism?*
- *Terrorism by Delay and Uncertainty-Delayed Toxic Syndromes, Unusual Metals – Beryllium, Arsine, Stibine, and The Psychological Impact of Mass Chemical Exposures*

On January 14, 2004 ACMT conducted a one day course on Capitol Hill for Congressional staff on **Chemical Agents of Opportunity**. The course was located at the Environment and Public Works Committee

Room in the Dirksen Senate Office Building. Ironically, two weeks later a letter containing a vial of ricin was received by Senator Frist's office within 100 feet of the presentation. Fifty congressional staffers from a variety of Congressional committees and offices attended the course. The Washington office of ATSDR and NCEH (National Center for Environmental Health) provided the infrastructural support for the course. **Henry Falk**, the newly appointed Director of NCEH/ATSDR, attended and gave the opening remarks. Other federal officials and ACMT members who participated in the course included **Edwin Kilbourne**, Chief Medical Officer of NCEH/ATSDR and **Philip Edelman** from the Office of Terrorism Preparedness & Emergency Response.

This course was a modified and shorter version of the October course. New speakers who participated in this course for the first time included **Keith Burkhart**, who spoke on chemical contamination of the water and **Toby Litovitz**, who spoke on poison center surveillance. **Michael Kosnett** provided an overview of Medical Toxicology and ACMT.

continued on page 5

ACMT Members Speak at Public Meetings and Provide Consults for ACMT-ATSDR National Network

Paul Wax, MD, FACMT,

National Coordinator ACMT-ATSDR Regional Network

Over the last year ACMT has developed a consultative network with the 10 ATSDR regional offices. This network has created new opportunities for ACMT members to consult and collaborate with federal health officials. The Cooperative Agreement between ACMT and ATSDR has provided funding to support ACMT member involvement in consultations and educational activities. Since this funding, in part, has come from the ATSDR's Division of Health Education and Promotion, ACMT member participation has primarily involved faculty and fellows of medical toxicology fellowship programs.

Over the last few months ACMT members have participated with their ATSDR colleagues at several public meetings. Topics of these meetings and ACMT presenters included: Effects and Toxicity of Dioxin in Michigan (**Suzanne White**), TCE groundwater contamination in Olathe, KS (**Edward Cetaruk**) and TCE in groundwater in Wamego, KS (**Steven Siefert**).

ACMT has also provided formal consultations to the ATSDR regional offices. Examples of consultations and the ACMT consultants include: Toxicity of chlorofluorophenol in Holly, NY (**Sage Wiener**), 1,4-dioxane biomarkers in Virginia (**Mark Kirk**), Benzene biomarkers at Tranguch gasoline spill site (**Keith Burkhart**), Asbestos biomarkers (**David Betten** and **Richard Clark**), Biomarkers of Teflon[®] manufacturing (**David Watts**), and Interpretation of hair Antimony levels (**Mary Wittler** and **Michael Beuhler**).

ACMT members have also been asked to participate with regional ATSDR offices in Comprehensive HAZMAT Emergency Response - Capability Assessment Program (CHER-CAP) programs. **Chuck McKay** and **Alberto Perez** performed a walk through at the Rutland Vermont Regional Medical Center in March and both plan to participate (along with **Rachel Goldstein** and **Tamas Peredy**) in a full field exercise in May.

ACMT Presents Two Courses in Washington, DC

continued from page 4

It was the sense of the ACMT faculty that most of the Federal officials at both these conferences were interfacing with medical toxicologists for the first time. Despite their interest in chemical terrorism (and in some cases, more specifically, toxicology), these federal workers appeared to have little or no knowledge about the specialty of medical toxicology. This new awareness among the conference attendees about the existence of the specialty of Medical Toxicology will benefit our discipline in the years to come.

Finally, along with several national courses in Washington DC (see accompanying article), ACMT recently presented 4 regional courses on Chemical Agents of Opportunity in St Charles, IL (9/04), Chicago, New York City (1/04), Kansas City (4/04), and Birmingham (4/04) as well as a course at the 6th Annual National Environmental Health Congress in Atlanta (12/03). Altogether more than 400 people have attended these regional courses, representing very disparate sectors that all share an interest in chemical terrorism preparedness. Attendees have included public health officials, emergency medicine physicians, HAZMAT professionals, FBI as well as representatives of fire and police agencies. Many thanks to the following ACMT members who have served as course directors and faculty at these courses: **Steven Aks, Randall Bond, Ed Bottei, Robert Cox, Steven Curry, Robert Hoffman, Michael Greenberg, Erica Liebelt** (course director – Birmingham), **Toby Litovitz, Jennifer Lowry, Lewis Nelson** (course director – NYC), **Steven Seifert** (course director – Kansas City), **Curtis Snook** (course director – St Charles), **Mark Su, and Gary Wasserman**. Special thanks to the following fellows who have also participated: **Vik Bebarta, Matthew Hedge, Ziad Kazzi, David Watts, and Mary Wittler**. Planning is underway for future programs in Colorado, Montana and Michigan.

The ACMT-ATSDR invites additional members to become involved in this network. Please contact Paul Wax at paul.wax@bannerhealth.com or Moayad Zahraiddin at info@acmt.net if interested in participating in future activities.

ACMT Drugs of Abuse Task Force meets with NIDA Working Group

ACMT's Drugs of Abuse Task Force has been working to increase the interaction of medical toxicologists with federal public health agencies that address clinical and preventive aspects of drug abuse. **Edward Boyer, MD, PhD**, chairperson of this task force, recently attended the National Institutes on Drug Abuse Community Epidemiology Working Group (CEWG) meeting in Atlanta, GA. Dr. Boyer presented personal data that highlighted the abilities of medical toxicologists to assist in the identification of emerging drug trends. The epidemiologists who attending the conference suggested that much of this data could change the ways in which the epidemiologists approached drug surveillance. The Drugs of Abuse Task Force is currently developing proposals to work with various agencies involved in drug abuse recognition and management. ACMT members interested in joining the Task Force are invited to send an email to Dr. Boyer via the ACMT office (info@acmt.net).

ACMT Urges National Toxicology Program to Increase Involvement of Medical Toxicologists

As part of the National Toxicology Program's (NTP) roadmap to implement its new "Vision for the 21st Century," ACMT encouraged the group to seek increased involvement of medical toxicologists. ACMT member, **Robert Wright, MD, MPH**, delivered a presentation at a public meeting held by NTP in Bethesda on January 29, 2004 to solicit input from interested parties. As NTP implements its newly announced focus for the future, it searches for strategies to integrate toxicological data into public health decision-making. Representatives of industry, federal scientific agencies, academic institutions and community stakeholders attended the meeting.

The National Toxicology Program (NTP) was established in 1978 by the Department of Health and Human Services to coordinate toxicological testing programs, develop and validate improved testing methods, and provide information about potentially toxic chemicals to regulatory and research agencies, the scientific and medical communities, and the public. The NTP is an interagency program consisting of relevant toxicology activities of the National Institutes of Health's National Institute of Environmental Health Sciences (NIEHS), NIOSH, and the Food and Drug Administration's National Center for Toxicological Research (FDA/NCTR).

In his comments before the NTP leadership and its Board of Scientific Counselors, Dr. Wright provided an overview of medical toxicology and provided examples of how medical toxicologists might productively interact with NTP programs and initiatives. Because of ethical constraints on the deliberate exposure of humans to toxins in experimental settings, the health consequences of significant human exposure often have to be studied in the field following accidental or unintended exposures. Dr. Wright emphasized the unique capacity of medical toxicologists to locate and evaluate patients of all ages with acute and chronic exposure to toxic substances, which will be a critical component of future translational toxicological research.

Dr. Wright also noted that the expertise of medical toxicologists regarding the clinical pharmacology and toxicology of chemical and pharmaceutical exposures might be of assistance to NTP as it develops and interprets toxicological data. As an example, he drew attention to a monograph released by the NTP in October 2003 on the potential human reproductive and developmental effects of methanol. The monograph, which featured an expert panel's evaluation of the general and reproductive toxicity of methanol, was generated without the input of any medical toxicologists. Dr. Wright noted that medical toxicologists nationwide have extensive experience evaluating patients with a broad range of methanol exposures, and as such would be pleased to offer assistance in the

development or review of reports of this nature. NTP representatives have since requested and received contact information for ACMT.

The potential utility of medical toxicology expertise was also noted in comments offered by **Jack Snyder, M.D.**, a medical toxicologist and ACMT member, who attended the forum as a representative of the National Library of Medicine.

NTP representatives indicated that they were pleased to learn about the specialty of medical toxicology and expressed interest in including medical toxicologists in future panels and projects. The ACMT Board of Directors invited Dr. Wright, a pediatrician and medical toxicologist on the faculty of Harvard Medical School, to represent ACMT at the NTP meeting because of his extensive interdisciplinary experience, which includes clinical practice, teaching, and research funded by the National Institute of Environmental Health Sciences. ACMT was the only national organization of toxicologists that presented comments at the NTP public meeting.



ACMT Would Like to Congratulate the 2003 FACMT Inductees

Michael Burns, Saralyn Williams, Martin Caravati, Kevin Osterhoudt, and Thomas Arnold with ACMT's Past Membership Chair, Cynthia Aaron.

Not Pictured: Russ Kerns, Richard Hamilton, Philippe Hantson, and Carl Baum

Institute of Medicine Report Recognizes Uniqueness of Medical Toxicology

The recently released IOM report “**Forging a Poison Prevention and Control System**” (2004) marks a new direction for the oft-struggling Poison Control Center network. It is a report that is well worth reading. Of note, the first page of the Executive Summary states the following:

“The term *toxicologist* is a general description of an individual dealing with any aspect of acute or chronic poisoning, and it does not have a specific definition or implication with regard to training or job description. For example, this term may be used to describe individuals whose activities range from molecular biology to epidemiology, as

long as they deal in some way with the toxic effects of chemicals. The term *clinical toxicologist* implies a more clinical orientation, but likewise has no specific definition or implications. Medical toxicologists are physicians with specific training and board certification in the subspecialty of medical toxicology, which focuses on the care of poisoned patients.”

As medical toxicologists, ACMT members appreciate the recognition. The full text of the report can be found at <http://www.nap.edu/books/0309091942/html>.

Toxicologists in the News



Wayne Snodgrass, M.D., Medical Director at the Texas Poison Center-Houston/Galveston, began a three-year term as a member of the Non-Prescription Drug Advisory Committee (NDAC) of the FDA. The December meeting focused on the “morning after pill”, levonorgestrel and included the NDAC and the Reproductive Advisory Committee for the FDA. There were presentations from the sponsoring company, the FDA, the American College of OB/Gyn, American Public Health Association, and the public. The final vote recommended that the drug be offered over-the-counter, however the FDA is yet to act on this recommendation. Another ACMT member, **Louis Cantilena**, is the current chairman of the NDAC.

Erica Liebelt, M.D. represented ACMT at the Pediatric Environmental Health Specialty Units (PEHSU) Annual Meeting in Washington DC on April 22. Her presentation discussed the specialty of medical toxicology, the ACMT/ATSDR Regional Consultative Network, and focused on building collaborative relationships between ACMT and PEHSUs. Because of many common goals and objectives, there are potential bi-directional educational, training, and research opportunities that could enhance specific issues relevant to both ACMT and the PEHSUs.

Daniel Sudakin, M.D., M.P.H., Principal Investigator of the National Pesticide Medical

Monitoring Program (NPMMP), has developed a website describing the program’s activities. The NPMMP is a cooperative agreement between Oregon State University and the U.S. EPA. The program provides and collects information relating to the clinical toxicology of pesticides. The NPMMP maintains a large paper and electronic library of scientific resources on pesticides and human health effects. The NPMMP is available as a source in the investigation of suspected human exposure incidents. Assistance is also available to clinicians in the assessment of exposure to pesticides utilizing biomarkers. The program website is located at <http://oregonstate.edu/npmmp/>.

ACMT Names Winners of 2003 Research Awards

Erica L. Liebelt MD FACMT,
Chair, Research Committee

The Research Committee of the American College of Medical Toxicology congratulates the winners of the 2003 research grants. There were a total of 12 high quality submissions for all of the grants. ACMT is committed to fostering research in the field of toxicology, and we are pleased to have selected the following recipients:

ACMT/Orphan Medical Grant for Antidotal Research (\$10,000):

Jason Chu MD
Assistant Professor,
Dept. of Emergency Medicine
St. Luke's-Roosevelt
Hospital Center

The Effects of Escalating Doses of Glibenclamide in Severe Verapamil Toxicity

ACMT/McNeil Research Grant Award for Medical Toxicology Fellows-in-Training (\$5,000):

Christopher DeWitt MD
Fellow, Rocky Mountain Poison and Drug Center

The Effect of Amiodarone Pretreatment on Survival of Mice with Cocaine Toxicity

2003 ACMT/ATSDR Mini-Grants for Fellows-In-Training: Preparedness for Chemical Terrorism or Mass Chemical Exposure Incidents (2 awards @ \$7500 each):

Vik Bebarta MD
Fellow, Rocky Mountain Poison and Drug Center

Effectiveness of Cyanide Treatments in a Swine Model of Cyanide-Induced Cardiac Arrest

David Watts, MD
Fellow, Good Samaritan Regional Medical Center
Dept. of Medical Toxicology

Carfentanil: Re-Evaluation of the Therapeutic Index in a Murine Model

The Research Committee is also grateful for the numerous ACMT members who served as reviewers for these various awards: Keith Burkhart MD, Daniel Goldstein MD, William Meggs MD Kevin Osterhoudt MD; Wayne Snodgrass MD PhD, Mark Su MD; Richard Wang DO, and Robert Wright MD.

ACMT Joins ASTM Project on Consensus Standards for Hospital Preparedness for ChemBio Incidents

Thomas G. Martin, MD, MPP, FACMT

ASTM International (<http://www.astm.org>) is a nonprofit organization that facilitates the development of voluntary, consensus standards. Participation in the standards development is open to qualified professionals (both providers and purchasers) but is voluntary. The 1995 National Technology Transfer and Advancement Act requires US government agencies to use privately developed standards whenever possible. Thousands of ASTM standards have been adopted by federal, state and local governmental agencies. ASTM funds standard development by selling the copyrighted standard documents. Because of a lack of national consensus on the minimal standard/level of all-hazards preparedness for hospitals, ASTM has created a Hospital Preparedness Standard E54.02.01 Task Group. This Group is charged with developing a medically/environmentally driven standard of "minimal levels" of preparedness. This standard will incorporate an industry-driven set of materials and aims to fulfill the needs of the Department of Homeland Security and many other regulatory agencies. The scope of this standard covers the major elements of hospital preparedness including: planning, needs assessment, hazard vulnerability analysis, training, integration, coordination, communica-

tions, mutual aid, implementation, provision of resources and evaluation of the response to drill or a major incident.

Task Group E54.02.01 functions under Committee E54 on Homeland Security Applications and Subcommittee E54.02 on Emergency Preparedness, Training and Procedures. Dr. James Augustine, Medical Director for the Atlanta Fire Department and Director for Clinical Operations, EMP, was selected to chair this Task Group. Participants in the inaugural Task Group meeting in Atlanta on March 10, 2004, included representatives from federal agencies: ATSDR, CDC, EPA, FEMA, HRSA, NCEH, NIOSH, OSHA, OSPHRSA National Bioterrorism Hospital Preparedness Program, US Army, USPHS Division of Acute Care Services; national organizations: ACMT, AHA, JCHO; state agencies: Texas DOH, NYC DOH, Georgia DPH and Atlanta HAZ/MAT DQE. The ACMT Board sent this author to participate and to represent ACMT. Participants divided themselves into groups focused on the mitigation, preparation, response and recovery phases of preparedness.

The Task Group was given an outline of the standard as a 1st draft at the inaugural meeting and is expected to complete a 2nd draft by March 20th. The 2nd draft of this consensus standard on hospital pre-

continued on page 9

How Moonshine Took Me to Chicago

continued from page 2

and events including use of chemical warfare. The latter of which seemed to be a favorite of this year's attendees. My personal favorite of these was the presentation by the Toxicology Historical Society. The session included a lecture about the infamous moonshiner, Fat Hardy, responsible for a large number of methanol poisonings. This brought the conference full circle for me since much of the reason I was selected for the Spadafora scholarship was my own research into contaminated moonshine.

Over two hundred abstracts were presented during the conference. These posters represented the pioneering edge of toxicology. Along with cutting-edge original clinical and bench research they included fascinating case presentations and poison control center data. I especially enjoyed the opportunity to talk with presenters to gain different perspectives and ideas regarding their research topics.

While in Chicago, Leslie Dye, the wife of the late Michael Spadafora, hosted this year's two scholarship winners for lunch. This allowed me to learn more about the physician behind this namesake award. Though his work in emergency medicine, toxicology and medical education Dr. Spadafora touched the lives of countless patients and physicians. I am certain his legacy will continue to influence the paths of rising physicians for years to come.

Finally, I would like to express my sincerest gratitude to the SAEM and ACMT for this scholarship and the opportunity to attend the NACCT. I thoroughly enjoyed my time in Chicago and look forward to continuing my efforts in the fields of emergency medicine and toxicology.

Consensus Standards in Development for Hospital Preparedness

continued from page 8

paredness will be available for comment for 20 days. After consideration of comments received, a 3rd draft will be prepared for submission to the ASTM Committee E54 at their next meeting on June 14–16, 2004 in Kansas City. There is a tremendous amount of work to be done in a very short amount of time. I am sure that many ACMT members will want an opportunity to review and comment upon this document found at the Committee E54 on Homeland Security Applications site, <http://www.astm.org/COMMIT/COMMITTEE/E54.htm>.

For more information, contact: Dr. Augustine jaugust@emory.edu, 404/486-1157 or ASTM TG E54.02.01 Coordinator: Patrick A. Picariello, Director, Developmental Operations, ASTM International ppicarie@astm.org, 610/832-9720.

President's Report,

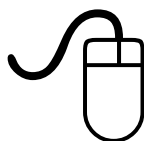
continued from page 1

representatives from EPA, the Department of Homeland Security, the Department of Defense, the Department of Justice and other federal offices. In January 2004, ACMT presented a half-day version of the course to 50 staff members of U.S. Congressional offices and committees in the Dirksen Senate Office Building (see story on page 1).

In response to numerous requests for the Chemical Agents of Opportunity course nationwide, ACMT has presented several programs in conjunction with the ACMT-ATSDR National Consultation and Education Network. Presentations have already been made to audiences of federal, state, and local health professionals and officials in Chicago, New York City, Birmingham, and Kansas City. Plans are underway for programs in Denver, Seattle, and Salt Lake City. In August 2004, ACMT will offer the course as a component of an FBI Symposium at a meeting of two international forensic toxicology societies. Portions of the course will also be presented as part of the 7th Annual Force Health Protection Conference to be convened this August in Albuquerque by the U.S. Army Center for Public Health and Preventive Medicine (USACHPPM). An expanding roster of ACMT members and toxicology fellows-in-training serves as instructors for each course, and subsequent presentations have benefited from prior audience feedback and new faculty perspectives. Thus far, 26 ACMT members, including 5 fellows in training, have taught the course, which has been organized under the skilled direction of Paul Wax, MD, and Lewis Nelson, MD.

The ACMT-ATSDR national network has enabled medical toxicologists to interact with federal and state public health officials in other projects that highlight the unique expertise of our specialty. As discussed in the story on page 5, ACMT members addressed public meetings on the health effects of dioxins and chlorinated solvents, participated in state preparedness drills for mass chemical exposures, and responded to state requests for information on actual or potential environmental chemical exposures. The past year has seen an

continued on page 10



DO WE HAVE YOUR LATEST
EMAIL ADDRESS? IF NOT
PLEASE SEND IT TO
info@acmt.net

President's Report, continued from page 9

unprecedented growth in awareness of medical toxicology among state agencies and regional and national offices of ATSDR and EPA. The ACMT-ATSDR network is succeeding on multiple levels: it enables medical toxicologists to offer valuable public service, increases the visibility of the specialty, educates fellows-in-training, and provides financial reimbursement to members for the time they expend on consultative efforts. Members are encouraged to read the story on page 5 for more information on how to help respond to the growing number of requests for assistance.

Just as our productive relationship with ATSDR continues to expand, ACMT is actively reaching out to other partners in the public and private sector. Last month, ACMT officially co-sponsored the 2004 Toxicology and Risk Assessment Course coordinated by the Department of Defense (DOD) in Cincinnati from April 26 to 30, 2004 (see story page 3). The 2004 course, perhaps the leading national gathering of Defense Department specialists in environmental and occupational toxicology, offered a unique opportunity to showcase medical toxicology to the largest (and best funded) branch of the federal government. To capitalize on this important opportunity, the ACMT Board of Directors held its annual mid-year meeting in Cincinnati from April 25 to 26, thereby guaranteeing a strong showing of medical toxicologists at the inception of the DOD program. Cincinnati is also the headquarters of the Education and Information Division of the National Institute for Occupational Safety and Health. A delegation of ACMT board members met with senior NIOSH officials to plan new cooperative projects. **Stay tuned for more information on an impending Memo of Understanding between ACMT and NIOSH that will lead to multiple projects and opportunities for ACMT members.**

ACMT now receives and responds to many other requests to participate in national toxicology programs that previously had no official medical toxicology representation. ACMT recently offered invited

presentations at the December 2003 National Environmental Health Conference in Atlanta, the January 2004 public meeting of the National Toxicology Program, the April 2004 national meeting of the Pediatric Environmental Health Specialty Unit (PEHSU) program in Washington, DC, and an April 2004 meeting on neurotoxicology sponsored by the National Institute of Neurological Disorders and Stroke. In July, ACMT will participate in the invitation-only "1st National Congress on Public Health Readiness" sponsored jointly by the CDC and the AMA in Washington, DC. ACMT is represented on an interdisciplinary panel convened by the American Society for Testing and Methods (ASTM) to develop a national standard for hospital preparedness for incidents involving weapons of mass destruction, bioterrorism and related mass exposures. ACMT has established a liaison to the National Advisory Committee, directed by EPA, which develops Acute Exposure Guideline Limits (AEGs).

ACMT is working to increase the national visibility of medical toxicology in issues concerning poisoning and overdose from pharmaceuticals and drugs of abuse. ACMT appointees currently contribute to a multidisciplinary panel on evidence-based guidelines for pre-hospital management convened by AAPCC with funding from the Health Resources and Services Administration. For many years, an ACMT representative has served on the Board of Directors of the Medical Review Officer Certification Council (MROCC). FDA officials subscribe to ACMTnet, which serves as a key outlet for MedWatch advisories. But given the prominent role of drug toxicity in the curriculum of our specialty, we clearly need new initiatives to foster closer interaction with FDA, the National Institute of Drug Abuse (NIDA), and the Substance Abuse and Mental Health Services Administration (SAMHSA). **An ACMT delegation that recently met with representatives of NIDA confirmed that we have much to offer in the way of guideline development, document creation and review, and health professional education in the area of drug abuse management and prevention. ACMT has created a task force on these initiatives that actively welcomes the involvement of interested members (see story page 5).**

ACMT's engagement with agencies that implement federal programs and policy enables us to simultaneously promote public health and increase the profile of medical toxicology among other stakeholders, the media, and the general public. But federal partnerships are only part of our overall strategic plan. In the months and years ahead, we plan to expand our interactions with other medical and scientific disciplines and with private industry. In early November 2004, ACMT will partner with the American College of Occupational and Environmental Medicine (ACOEM) to present the Chemical Agents of Opportunity course at ACOEM's State of the Art Conference in San Antonio. As with all of the College's growing list of activities, we welcome and encourage increasing membership involvement and initiative.

EDITOR'S NOTE:



If you have any questions, comments, or concerns regarding the newsletter or other ACMT activities, please contact ACMT at info@acmt.net or call the national office at (703) 934-1223

Annual Meeting in Chicago, *continued from page 2*

cardia and seizures. This case suggests that 8 to 10 hours may be more appropriate, that further research into this issue is needed and that tin foil, while bendy and shiny, does not have a waterproof seal.

To check or not to check... Patients presenting to the emergency department with overdose in the setting of a suicide attempt will often have both a serum salicylate and acetaminophen level checked. While salicylate levels are easily obtained, there is still some controversy as to the appropriate use of the test. Wood *et al.* performed an observational retrospective review of 726 patient charts and lab records. They found that a positive history for salicylate ingestion was 81% sensitive with a positive predictive value of 79%. More importantly, a negative history of salicylate ingestion had a negative predictive value of 98%. While this study had some important limitations (retrospective, selection bias, small n with possible type II error), it does affirm the practice of those who believe that a salicylate level is unnecessary in the conscious, asymptomatic overdose patient that denies ASA ingestion.

And now for something completely different... Escitalopram (Lexapro), an enantiomer of the racemic SSRI citalopram (Celexa), was introduced to the US market about a year ago. Because of its novelty, little was known about this drug's side effects and activity in overdose. Wiegand *et al.* presented a case of serotonin syndrome in a 75-year-old male who had just started SSRI monotherapy for depression. The patient presented with one day of altered mental status, fever and new onset upper extremity tremor. The patient had been taking escitalopram 10mg PO for 2 days, had never used an SSRI before and was taking no other serotonergic medications. While the patient's urine showed citalopram, the remainder of lab tests and imaging were unremarkable. Escitalopram was discontinued on admission and the patient was asymptomatic by day 3. This case should remind us to keep serotonin syndrome in our differential diagnosis – even in the setting of SSRI monotherapy at therapeutic doses.

ACMT CONTACT INFO:

11240 Waples Mill Road
Suite 200
Fairfax, Virginia 22030
Phone: (703) 934-1223
Fax: (703) 359-7562
E-mail: info@acmt.net
www.acmt.net

What's good for the goose, is good for the gosling. Sulfonylurea overdose can result in resistant hypoglycemia from the stimulation of pancreatic β -cells and subsequent insulin release. Management of sulfonylurea overdose typically involves 10% dextrose IV infusion, frequent blood glucose checks and 50% dextrose IV boluses as needed. Rebound hypoglycemia from dextrose infusion may require octreotide to suppress insulin release from β -cells. Kent *et al.* report a case in which octreotide was used in managing resistant hypoglycemia in a 16 month old child. Despite IV dextrose infusion and several boluses of 50% dextrose, the patient continued to have rebound hypoglycemia. Octreotide 10(g IV over 15 minutes was used twice over the course of the patient's treatment with good effect. The patient was discharged home 24 hours post ingestion with no sequelae. This case serves to remind us that octreotide may be an effective therapy for sulfonylurea overdose in both adult and pediatric patients.

Make like glue and stick around. Bupropion is an atypical antidepressant with norepinephrine, serotonin and dopamine activity used in smoking cessation and depression. Seizures have been seen in overdose with both the immediate and sustained release forms. Many clinical centers will observe these patients for 12 hours prior to disposition. Goldstein *et al.* presented a case series that identified four patients that had delayed onset of seizures. Two patients had their initial seizure after 12 hours of observation. One patient's first seizure occurred between 12 and 18 hours, the second patient's initial seizure occurred at about 38 hours. This study suggests that the current practice of charcoal and 12 hours of observation may be inadequate.

I thought you said your dog did not bite! That is not my dog... Quetiapine (Seroquel) is an atypical antipsychotic with dopamine and serotonin activity that is structurally similar to the tricyclic class of antidepressants. Caravati *et al.* conducted in vitro evaluation of quetiapine's potential to cross-react with TCA immunoassays. They found significant cross-reactivity with both the quantitative and two qualitative assays tested. This study should remind us of the fallibility of our lab tests and that our clinical suspicions should direct lab investigation and not the other way around.

In conclusion. For those of you who were unable to attend the meeting in Chicago, I hope this article provides some sense of the interesting topics that were presented. The symposium provided an important outlet for cutting edge research and practical presentations and I hope you will consider attending this meeting in the future.

Finally, I would like to thank the American College of Medical Toxicology, the Society for Academic Emergency Medicine, and Dr. Leslie Dye for the opportunity to attend this meeting. And last but not least, thank you Chicago, go Cubs!



The American College of
Medical Toxicology
11240 Waples Mill Road
Suite 200
Fairfax, Virginia 22030
www.acmt.net

Medical Toxicology Board Review Course Set for October 1-3, 2004

ACMT is excited to announce the development of a course designed to prepare all examinees for the certification (and recertification) examination in Medical Toxicology that is to be administered on November 6, 2004. The course will be held on Friday, October 1 through Sunday, October 3, 2004 at the Hyatt Regency in Dallas, Texas. This is timed midway between NACCT (September 9-14, 2004) and the examination.

The course will be 2.5 days in length and will feature approximately 25 speakers as well as a stimulus room. It will cover the entire Core Content of Medical Toxicology published in the February 2004 issue of the *Annals of Emergency Medicine*. Practice questions and a complete syllabus will be provided.

CME credit is being arranged.

For detailed information on both the hotel and the course agenda, or to register online, visit the ACMT website (www.acmt.net).