



Message from the President: *Robert Hoffman, MD*

The AACt: Past, Present, and Future

Over the last few weeks, and as a result of a confluence of events, I have had the opportunity to reflect quite a bit on the past, present, and future of the Academy. I would like to share some of my thoughts with you.

In 1968, when Eric Comstock became the first president of the Academy there were no computers, no emails, no cellphones, no iPads, and no Academy office. All records and transactions occurred on paper and were transmitted through what we now affectionately call "snail mail". Records were stored in large boxes that moved around the country every time new Academy officers were elected. By 1996 when Ed Krenzelok became President, the sheer volume of records that landed in his office was impressive. Since the end of his term in 1998, Ed has likely asked every President to accept those boxes so that they can be reviewed and preserved as needed. During those years, computers, digital records, emails, smartphones and all the communication technologies we take for granted were developed and implemented. While all intervening presidents were smart enough to refuse, I gave in to the pressure and agreed to receive seven very large and heavy boxes.



As Maria Mercurio-Zappala (the Academy Secretary) and I began to open the boxes we had no idea what to expect. Along with now meaningless correspondence, banking statements and meeting notes we found the original articles of incorporation, pictures of members from old meetings, and lapel pins bearing a logo for the Academy formed of a benzene ring, a poppy plant and a coral snake.

Some of these images will be included in this and upcoming issues of AACt. Just as we finished, we left for the spring Board of Trustees meeting.

At the Board of Trustees meeting there were extensive discussions of the present. The Board met in the same hotel that will host NACCT 2013 and I can promise you a great facility, low-cost public transportation from the airport to the hotel, and outstanding food and entertainment choices within a short walk from the meeting. Over 400 abstracts

were submitted for NAACT and the presymposia and scientific sessions offer promise of an outstanding educational. We are financially sound, with the planned balanced budget actually showing a significant profit. We have successfully partnered with societies from around the globe and will begin to see the benefits of those collaborations, with symposia at IUTOX, Alatox and others.

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AACTion

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PRESIDENT'S MESSAGE CONTINUED

As a glimpse into the future, expect more communications via podcasting, and other social media such as twitter and facebook. There were discussions of new research awards, ways to improve the social networking at future NACCTs, and even a contest to develop a new Academy logo.

Someone sent me an email recently. I can't remember who, but at the bottom was a wonderful quote from Eleanor Roosevelt that seemed to sum it all up: "Yesterday is history, tomorrow is a mystery, and today is a gift; that's why they call it the present". Frank Sinatra went a little further (and perhaps a little too far) when he said: "You gotta live every day like it's your last because one day you'll be right." Finally, with regard for the future I offer you two directions. Woody Allen in his wonderfully nihilistic style said: "If you want to make God laugh, tell him about your plans." John Lennon took a more realistic approach saying: "Life is what happens to you while you're busy making other plans".

I would like to preserve our valuable history and make the most out of what we are doing today, while trying to at least plan a little for a better tomorrow.



*Two Greats at 1974 International Congress of Clinical and Analytical Toxicology
- Walter Decker on left in uniform and Julian Chisolm (lead guru) on right*

Message from the Editor:

Jeanna Marraffa, PharmD

I don't like to rush time but before we know it, NACCT will be upon us. The organizers of this NACCT are hard at work and preparing for what is sure to be a great Congress. Keep your eyes open for a special issue of AACTion in July dedicated to NACCT. In the meantime, early bird registration is now open. Go to www.clintox.org for the brochure and to register.

The Board of Trustees had a productive two day meeting in Atlanta, Georgia in early May. Led by Bob Hoffman, it is evident that AACT is moving forward with great progress and making great strides to achieve our mission and vision. AACT is moving into social media....so stay tuned for more details over the next few months. Collaboration with our colleagues from other organizations continues to thrive. Take a look at the Upcoming Meetings with these groups. A website revitalization committee has been established. As mentioned in the previous issue, the Education Committee is creating new educational opportunities for AACT members. Save the Date for the next AACT/ABAT Journal Club on July 24, 2013. We also had some time to spend in the Hyatt Regency and get famil-

iar with the area. Atlanta and the Hyatt Regency are for sure to be a great location for NACCT. The hotel is a 15 minute ride on Atlanta's public transportation. The hotel is recently remodeled and has a fitness center that is free and open 24 hours a day. The bar in the hotel is sure to be a great meeting place to catch up with your friends and colleagues. There are many great nearby restaurants and shops. I strongly recommend Sweet Georgia's Juke Joint for great food, great music and great moonshine! Centennial Olympic Park is just a short walk from the hotel. And for the sports enthusiasts, the Atlanta Braves will be hosting the Philadelphia Phillies and the Atlanta Falcons are hosting the New England Patriots for Sunday Night Football. Atlanta is sure to be a great place for a great scientific meeting and to have some fun! Hope to see you there.

I'm looking forward to very productive upcoming months for AACT and excited for the numerous opportunities. Consider getting involved in a committee or SIG. AACT needs each of you!

Happy Summer!

NACCT 2013 Joint RSIG/WMD-SIG Preview

Join us at the 2013 NACCT Conference for the Radiation and WMD Interest Group Joint Symposium on the medical and public health aspects of an improvised nuclear device (IND) detonation. Although the consequences of such an incident will be catastrophic, the medical and public health response can save lives if conducted appropriately. In the event of an IND detonation, clinical toxicologists must be prepared to participate in the response at hospitals and poison centers. Given the destructive capacity of an IND detonation, a national coordinated response will be necessary no matter where the incident occurs. Because incidents involving radiation are rare, clinicians may have little or no training and experience with radiological emergency response activities, such as the unique evaluation and treatment of patients with radiation injuries. Clinical toxicologists who are experienced in decontamination, triage, and public communication about risk will prove to be invaluable during such difficult times.

This symposium is organized by Drs. Adam Pomerleau and Jerrold Leikin and will consist of a two part, one hour

session. The first lecture will discuss the damages and injuries expected after an IND detonation, followed by a Q&A with Dr. Robert Whitcomb PhD, Team Lead of the Radiation Studies Branch of the CDC. The second lecture will discuss the public health response after an IND incident, followed by a Q&A with Dr. Charles W. Miller PhD, Chief of the Radiation Studies Branch of the CDC. After the session, attendees will be able to compare and contrast differences in blast damage zones and understand different radiation zones and hazards. They will also be able to identify the unique considerations for patient triage and understand the public health response following an IND detonation.

A separate SPI Radiation Training Session, covering communication challenges in radiation emergencies will also be held at this year's meeting. The session is organized by Drs. Joseph Rella and Arthur Chang and will include speakers Ms. Leeanna Allen from the Radiation Studies Branch and Mr. Royal Law from the Health Studies Branch of the CDC.

An In-Depth Conversation with Dr. Mark Kirk

Jeanna Marraffa, PharmD

At the recent NACCT meetings, the popularity and excitement during the simulation trainings is palpable. These sessions have become a highlight of NACCT. This reflects the advancements in education and training, in medical education and specifically toxicology training. With numerous toxicologists now incorporating simulation within their training programs, I thought that it would be helpful to hear the perspective of Dr. Kirk due to his vast experience with simulation.

JMM: What is your background/experience with simulation training? And how did you become involved in simulation training?

MK: My experience with simulation began in 2002 on the day the Department of Emergency Medicine at the University of Virginia received its first human patient simulator. I began to explore the use of simulation as a teaching tool for improving students' and residents' understanding of pharmacology and acute care toxicology. Because I was not yet convinced of its benefits, I performed pilot studies exploring the educational benefits of simulation. I have been a clinical educator for more than 20 years and I find high fidelity simulation to be one of the best educational tools for teaching clinical decision-making. I have embraced its use as a complementary educational modality in the curriculum for healthcare providers. My observations suggest that it engages learners in active learning, provides an opportunity to practice practical application of knowledge and skills in clinical scenarios, teaches clinical decision-making and motivates learners to seek more information to fill their knowledge and performance gaps.

Early on, my simulation experience was limited to case development for acute care toxicological emergencies. I led small groups of medical toxicology rotators (students, pharmacists, residents) through scenarios that I developed. My chairman recognized my work and I became a member of the Medical Simulation Executive Committee. This group became the visionaries for creating the University's path forward for incorporating simulation into the curriculum. In the short term, I developed and implemented many cases, courses and workshops while assisting in the acquisition of additional simulators and marketing simulation as a new teaching tool. In the long term, I participated in the School of Medicine's Education Task Force to develop the strategic plan for medical

curriculum in undergraduate, graduate and continuing education for medicine, nursing and other healthcare providers. I assisted in the development of a detailed business plan, floor plans for a new cutting-edge simulation center and details of incorporating simulation into the Next Generation Medical School Curriculum. I now serve as the Co-Medical Director for the UVA Medical Simulation Center and oversee aspects of our 10,000 sq ft facility with 10 human patient simulators and a vast array of task trainers and virtual reality simulators.

In addition to my current administrative role in the center, I personally teach a large number of courses and workshops using many of the cases that I developed. In one of courses held each semester, I facilitate small group simulation scenarios for the entire first and second year medical school class (160 students per class). In addition, I designed the curriculum and implemented a faculty development program to help medicine and nursing faculty teach more effectively with high-fidelity simulation.

My most recent project uses simulation for improving first responder and first receiver preparedness for large-scale hazardous chemical incidents. I promote simulation as an educational tool to enhance preparedness.

I have published several abstracts on simulation and presented at meetings such as the International Meeting on Simulation in Healthcare.

JMM: In your opinion, what are the benefits of simulation training?

MK: Simulation is a tool that allows students to enter into "Significant" Learning Experiences that ultimately enhance patient safety and improve future patients' care. An effective simulated clinical experience incorporates adult learning theory and active learning methods into a safe environment for learners to take risks and even make mistakes. This experience immerses the learner in a realistic clinical encounter. The learner feels similar to getting immersed in a video game or movie. The best learning happens after the clinical experience, during the debriefing, when learners reflect on their decisions and actions, digging deep to discover the thinking that led to those actions. Here the learners and the team discover their faulty concepts or gaps in knowledge and skills. We give learners the opportunity to discover, for themselves, their

individualized curriculum that will lead to clinical performance improvement. Learning that hopefully occurs long after leaving a simulation session.

JMM: How may simulation training improve clinical toxicology training? And how do you see simulation training being integrated into clinical toxicology training programs?

MK: I believe medical simulation and clinical toxicology are meant for each other. For over 20 years I taught toxicology principles through case-based learning. This approach teaches by vicarious experience. Using powerful stories that give learners a chance to make decisions in an active learning environment. Simulation is even better because it is learning through direct experience. It adds the sights, sounds, emotions and physical actions of being in the real situation. I think we all learn best in that way. Clinical toxicology is a great area to bring the basic science "bench" research to the practical application at the "bedside". Bedside clinical toxicology encounters can provide powerful motivators to learn basic science concepts from pharmacology, physiology, biochemistry and more. Medical simulation provides a means to create a clinical encounter the teacher finds most important rather than waiting for whatever comes in next. Through simulation, the learners can have a standardized clinical experience so that the basics are learned by all.

JMM: If you could see into the future, what would you expect the impact of simulation training to have?

MK: The power of simulation is to create highly effective medical teams through rehearsal in crisis situations, to enhance patient safety and improve future patients' care. Once students experience learning through simulation, they crave more. The push for competency based education and student demand is likely to require more simulation experiences in medical education.

JMM: Assessing the impact of simulation has been a consistent problem and there is little data about this in the literature. Do you have any thoughts as to how this can be assessed or how future research can be attempted?

MK: Is it proven to work? Well, studies to provide conclusive evidence do not yet exist but the evidence is mounting that simulation, in addition to other educational modalities, is enhancing clinical performance. I just want to make it clear, medical simulation augments clinical experience and clinical learning. It is not intended to replace it but provide a venue for preparing to give the best care and keep patients safe. It is also a venue for gaining clinical experience for those low likelihood or rare encounters that none of us may ever know, but when the time comes, we need to be experts in managing those situations.

JMM: Thank you for your willingness to talk with me about this exciting aspect of medical education and toxicology training.

The **Toxicological Historical Society SIG** is committed to preserving the history of poisons and the poisons of history. This SIG has been organized to:

- 1) Provide a forum for those with an interest in the history of poisons and their impacts throughout history and present day.
- 2) Provide interesting and unique educational opportunities through webinars and National Toxicology Conferences.
- 3) Promote research in the history of toxicology: its past, present, and future.

Members interested in participating in the Toxicological Historical Society SIG are encouraged to contact Dr Bryan Judge at bryan.judge@spectrumhealth.org

Please join us for an exciting symposium at the **2013 Annual Meeting of the North American Congress of Clinical Toxicology September 27 - October 2 in Atlanta Georgia.**

Upcoming Meetings & Announcements

The 2013 North American Congress of Clinical Toxicology

NACCT 2013 will be held from September 27 through October 2, 2013 at the Hyatt Regency in Atlanta, Georgia. The NACCT Planning Committee is hard at work for what will sure be a successful Congress. For more information about NACCT 2013, go to www.clintox.org.

Early bird registration is now open!!

The 2013 North American Congress of Clinical Toxicology program is finalized and the committee is working on the final schedule. One of the highlights for the meeting will be a Keynote Address from Dr. Thomas Frieden. Dr. Frieden is the Director of the U.S. Center For Disease Control and is well recognized as a leading advocate for public health. Dr. Frieden has a long and remarkable career in public health. As Commissioner of the New York City Health Department, he lead campaigns to reduce smoking, remove trans fats from restaurants and expand the use of electronic medical records in the community. After joining the CDC he has led the response to H1N1 and championed campaigns to reduce healthcare acquired infections. Of particular interest to toxicologists, Dr. Frieden is now leading the public health efforts against prescription opioid abuse. Please join us for this exciting presentation.

SAVE THE DATE FOR THE NEXT AACT/ABAT JOURNAL CLUB

The next AACT/ABAT Journal Club will be held by webinar on July 24, 2013 at 11:00 am EST. Stay tuned for more details for what is sure to be another great journal club.

Congreso Latinoamericano Toxicología Clinica Y Seguridad Química

The 14th annual Congreso Latinoamericano Toxicología Clinica Y Seguridad Química meeting will be held on October 17-19 2013 in Guayaquil, Ecuador. The sponsors have asked AACT to supply a speaker on one of the following topics: 1) Nanotherapy, 2) Endocrine Disruptors, 3) Chemical carcinogenesis.

If you are able to lecture effectively in Spanish on one of these topics and are willing to represent the Academy, please send a proposal to Bob Hoffman at bobhoffmd@gmail.com.

gmail.com. Although the Academy cannot pay for airfare, your lodging, food, local travel and registration will be covered.

EAPCCT Congress

The EAPCCT Congress will be held in Copenhagen from May 28-31, 2013. A preliminary programme is found on the website, <http://www.eapcct.org/index.php?page=congress1>

The Congress registration is now open, see <http://www.eapcct.org/index.php?page=congress1>

If you are a member of EAPCCT or AACT you are able to register for a reduced fee.

The XIII International Congress of Toxicology (ICT XIII)

The XIII International Congress of Toxicology (ICT XIII), to be held in Coex, Seoul, Korea, June 30-July 4, 2013 at the COEX Convention & Exhibition Center.

Participants are advised to register in advance<<http://www.ict2013seoul.org/regi1.asp>> to receive an early registration discount. For more information on the meeting please visit the website at www.ict2013seoul.org<<http://www.ict2013seoul.org>>.

Practical Application of Toxicology in Drug Development

The American College of Toxicology (ACT) announces "Practical Application of Toxicology in Drug Development [<http://www.actox.org/meetCourses/patdd.asp>]" to be held in Edinburgh, United Kingdom, September 9-13, 2013. This basic course in toxicology provides an opportunity for professional development for scientists from all parts of the world. Experts will present principles of nonclinical safety evaluation with emphasis on the practical application of these principles and interpretation of nonclinical safety data through the use of case studies. Co-sponsored by Charles River and in association with the British Toxicology Society, this course is one of a series of successful courses offered by ACT.

RBSC 2013

We are pleased to inform you that the *Regional European Biomedical Laboratory Science Congress and the 4th Greek Medical Laboratory Technologists Conference, under the patronage of the European Association for Professions in Biomedical Science* will take place in Athens, Greece from 5-8 December, 2013

Our primary goal is to develop the profession of Biomedical Scientists and emphasize our role in the health care system, where biomedical laboratory science plays an important role throughout the world, providing excellent clinical laboratory service for the wellbeing of the patients.

The high-quality scientific programme will broaden perspectives, by exploring innovations in the latest diagnostic and research technology and by promoting modern scientific and technological developments in Biomedical Science, in the following scientific fields: Haematology-Blood Bank, Immunology, Microbiology, Biochemistry-Clinical Chemistry, Cytology, Molecular Biology-Genetics, Pathological Anatomy, Certification and Accreditation of Laboratories, Biosafety, Bioinformatics and Ethics in the Biomedical Laboratory.

For further information about the Congress, visit the website: <http://ebsc2013.com>

Advanced Hazmat Life Support (AHLS) Update and Opportunities

Frank Walter, MD

Thanks to the many American Academy of Clinical Toxicology (AACT) members who serve as Advanced Hazmat Life Support (AHLS) Providers, Instructors, Regional Directors, Scientific Advisory Committee members, Administrative Policy Committee members, authors and editors, AHLS has helped healthcare professionals around the world better care for victims of hazardous materials incidents and prepare for toxic terrorism (ahls.org). AHLS is an international, interdisciplinary continuing education program co-sponsored by the AACT and the University of Arizona Emergency Medicine Research Center. This collaborative project has trained more than 14,000 interdisciplinary healthcare professionals from 63 countries around the world to care for patients involved in hazmat incidents and toxic terrorism.

AACT members are serving their communities by teaching the two day AHLS Provider Course, as well as the half day AHLS Instructor Course, AHLS for Chemical Burns and Toxic Products of Combustion Course, AHLS for Toxic Terrorism Course, and the AHLS for Radiological Incidents and Terrorism Course. AHLS is looking forward to a busy time, as the 4th edition of the AHLS Provider Manual is being edited and designed for release October 1, 2013. The new Provider Manual will be in full-color and will include graphics, photographs and tables that also appear on the PowerPoint slides. The slides and the book will match,

allowing for easier following by students. New chapters include: Hydroxocobalamin; DMAP and Obidoxime; and the addition of a new scenario.

A second edition of the AHLS for Radiological Incidents and Terrorism will be available in October as well. All other AHLS course manuals will be re-designed and updated with edits, photographs, charts and tables and will be available in early 2014.

Discussions are ongoing for translation of AHLS into Chinese, German, Japanese and Portuguese.

Preserve your calendars for the AHLS for Radiological Incidents and Terrorism Course occurring on the last day of the NACCT in Atlanta, GA, on October 2, 2013 at Grady Memorial Hospital from 1pm to 5pm. Please register at ahls.org. We thank Ziad Kazzi, MD for serving as the host of this course. Cost \$188. Register online at www.ahls.org Call 520-626-2305 with any questions.

Opportunities abound for AACT members to serve their communities and advance their careers by participating in AHLS, a globally-recognized program co-sponsored by AACT. If you are interested in participating in AHLS, please contact the international office at ahlsinfo@aemrc.arizona.edu or 520-626-2305. Again, heartfelt thanks to all AACT members who have contributed to the success of this international collaboration.

AACT in Photos



The Board hard at work during the recent May Board Meeting



Tony Tomassoni keeping track of action items



Bob Hoffman moving along the agenda



The American Academy of Clinical Toxicology

Uniting scientists and clinicians in the advancement of research, education, prevention and treatment of diseases caused by chemicals, drugs and other toxins.

AACT Lampe-Kunkel Award Research in Natural Product Toxicology



What is the L-K Award?

- This award is intended to support research into the toxic effects of biota such as botanicals and reptiles

How much money?

- Award is (maximum) \$3000
- A separate award of \$750 is given to present at the North American Congress of Clinical Toxicology

Who can apply?

- Members of AACT in good standing

Applications due:

November 1, 2013

What are the Award requirements?

- The entire study must be completed within two years of the award date
- Annual progress reports must be submitted to AACT
- A one-time only, no-cost extension may be granted

How do I apply?

- Apply on-line at www.clintox.org

More information?

- Email the AACT Executive Director, Sarah Shiffert: sarah@clintox.org
- Email the AACT Awards Committee Chair, Dr. Kenneth McMartin: kmcmar@lsuhsc.edu

