TAO Newsletter

Fall 2014

TAO Awards & Funding

TAO is soliciting individual and corporate sponsors.

Volunteers Needed

We would love if you could help us.

TAO Members on the Move

TAO members are advancing and making great contributions to toxicology.

Mystery TAO Member

Can you guess who this TAO member is?

Science in the News

Vitamin D deficiency

Facts about the Ebola virus
Message from the President

We need your support!

One of the key focus areas for the 2014-2015 TAO-SIG Executive Board (EB) is strengthening our financial health. The TAO-SIG is operating on a very limited (shoestring) budget. We occasionally receive corporate sponsorship but it has not been enough to substantially impact the budget. This year the EB has decided to lead the charge by personally donating to the TAO general fund. Now, we are asking you to partner with us and personally donate to the TAO’s general fund. Your gift will allow the TAO to increase its scientific engagement opportunities (e.g., webinars), support scholars, postdoctoral and student travel awards, as well as expand our networking and functional capabilities.

Many companies will match funds donated by their employees. Once you submit your donation, if applicable, submit the paperwork to your Corporate Matching Gift Program.

All donations are tax-deductible. If you would like to support TAO, please make your check payable to Society of Toxicology Fund for TAO-SIG and mail to Society of Toxicology, 1821 Michael Faraday Drive, Suite 300, Reston, VA 20190. If you would like to pay via credit card, please contact Raul Suarez at (703) 438-3115, ext. 1461.

No donation is too small.
EVERY DONATION COUNTS!

Kimberly Hodge-Bell, PhD, DABT
2014-2015 TAO President
thebells3@gmail.com

TAO is offering three Awards

- Graduate Student and Postdoctoral Fellow Travel Award
- Graduate Student or Postdoctoral Fellow Poster Award
- Distinguished Scientific Presentation Award

Recipients must attend the TAO reception at the 2015 SOT Annual Meeting to accept their award checks. Recipients will also receive a special ribbon to attach to their annual meeting badge designating them as recipients of a TAO Award.

How to apply:
For more information on how to apply, please visit the website http://www.toxicology.org/iso/t/sig/tao/awards.asp

Send applications to:
Darryl B Hood, PhD
TAO Awards Committee Chair,
Department of Neuroscience
College of Public Health,
Ohio State University
hood.188@osu.edu
Fundraising Committee

We are appealing that you consider supporting TAO by donating to the general fund or soliciting donations from corporate sponsors. All donations are appreciated and no amount, except zero, is too small. Additionally, many companies that provide toxicology services or work with toxicologists may be willing to make small donations to TAO. Please be a champion for TAO and tap into your corporate contacts for small donations to support TAO’s ongoing efforts to advance the science of toxicology. We can provide a donation request letter as needed.

If you would like to participate in TAO’s fundraising efforts (including joining this committee) please contact Christopher Stewart (Chris.W.Stewart@sbcglobal.net).

Membership Committee

The membership committee would appreciate ideas to increase TAO membership. If you have any suggestions, or would like to join this committee, please contact Sidney Green (sid.gre@msn.com) or Yasmeen Nkruama-Elie (Yasmeen.Nkrumah-Elie@oregonstate.edu).

Communications Committee

The communications committee is responsible for communicating with the TAO membership. We have several ongoing projects designed to educate and inform our members including the newsletter and plans for a webinar series. If you would like to help us with any of these efforts, please contact Elena Braithwaite (doctorelena@yahoo.com) or Melanie Abongwa (mabongwa@iastate.edu). We are also looking for more members to join this committee.
Darryl Hood, PhD
Dr. Darryl B. Hood recently joined the faculty of the College of Public Health and College of Medicine at The Ohio State University after 20-dedicated years of service at Meharry Medical College. His research at Meharry, focused on the mechanisms governing neurotoxicity of environmental chemicals. His laboratory demonstrated for the first time, the functional impact of in utero exposure to benzo(a)pyrene on later-life behavioral phenotypes mediated by maturing glutamatergic cortical circuits. Thanks to Dr. Hood’s research, the field has learned that postnatal brain development requires input from the environment in order to induce the release of glutamate and thereby promote critical aspects of synaptic maturation. He showed that exposure to common environmental pollutants can have a direct, negative impact on the regulated developmental expression of key regulators of glutamatergic signaling with associated negative behavioral learning and memory outcomes. TAO congratulates Dr. Hood for his new appointment in The Ohio State University.

Ambassador Ali Said Faqi, PhD, DABT
The Wardheer News conducted an interview with TAO’s Past President who was also recently appointed as Somalia’s Ambassador to the Benelux and the European Union. To see the interview please access the following web site:


TOA is extremely proud of Dr. Faqi’s appointment and whole heartedly wishes him every success in this rather challenging diplomatic endeavor.

Elena Braithwaite, PhD, DABT
TAO is pleased to recognize and congratulate one of its executive board and founding members, Dr. Elena Braithwaite for her recent recruitment as Staff Fellow at the Division of Clinical Review, United States Food and Drug Administration (FDA). Prior to joining the FDA, Dr. Braithwaite worked as staff scientist in the Laboratory of Toxicology and Pharmacology at the National Institute of Environmental Health Sciences (NIEHS), and as a postdoctoral fellow at the Centre National de la Recherche Scientifique in Strasbourg, France. As an accomplished scientist/toxicologist, Dr. Braithwaite has made valuable contributions to the field of toxicology but is most gratified by her mentoring efforts particularly with underrepresented (minority) scientists. TAO is extremely delighted to have Dr. Braithwaite as one of its officers.
African-Americans and Vitamin D deficiency

By Sidney Green, PhD

In a recent issue of “Health News”, NPR’s Richard Knox published an article entitled, “How a Vitamin D Test Misdiagnosed African Americans”. In this article he cited a published study in the New England Journal of Medicine by Powe et al. (New England Journal of Medicine 2013; 369:1991-2000). Knox reveals that current blood test for vitamin D often classify African-Americans as deficient. As a consequence vitamin D supplementation is usually recommended. He points out that these patients may not be deficient at all but are victims of a diagnostic flaw in the assay. The study’s authors measured a form of vitamin D, 25-hydroxyvitamin D, which is also the form the current test measures. 25-hydroxyvitamin D is bound to a protein, converted to 1, 25-dihydroxyvitamin D and then utilized by the body. In Caucasians, measuring 25-hydroxyvitamin D is a good indicator of how much of the 1, 25-dihydroxyvitamin D is present. This is not the case for African-Americans because they only have 25-33% the amount of the binding protein as Caucasians.

According to Knox, the author's state,” their study finds that in spite of those lower levels of the protein, African-Americans still have enough of the bioavailable vitamin, 1, 25-dihydroxyvitamin D. This is why the bones of African-Americans appear strong when the test for vitamin D indicates they should not be”. The authors conclude that “just because your total levels are low, it doesn't mean we need to replace vitamin D using supplements”.

Reference

Mystery TAO Member

How well do you know your fellow TAO members? Using the clues below can you guess who this mystery TAO member is?

1. My first car was a Ford Escort Hatchback.
2. I have a BS degree in chemistry from Delaware State University and a PhD in toxicology (veterinary medical sciences) from Virginia Tech.
3. I was born in Philadelphia, Pennsylvania.
4. My greatest accomplishment in high school was being accepted into the MARC program at Delaware State University.
5. I am the second of three girls and was 21 inches long at birth (1/3 my current height).
6. My favorite hobby is traveling.
7. I have three amazing boys.
8. I have always wanted to learn how to swim.

Stay Tuned! The mystery TAO member will be revealed in the Winter Newsletter.
Facts about the Ebola virus

By Elena Braithwaite, PhD, DABT

The recent Ebola virus outbreak in West Africa is the largest Ebola outbreak in history. In the past, outbreaks of the Ebola virus occurred in isolated areas, such as small remote villages and were contained there; but, this recent viral outbreak has spread to more populated areas and sparked international concern.

The Ebola virus is a negative-strand RNA virus whose genome encodes seven structural proteins and one nonstructural protein. The complete life cycle of the Ebola virus is not fully understood; but, some speculate that fruit bats serve as a natural reservoir host for the virus. Following initial human infection through contact with an infected animal, the virus spreads between humans through direct contact (through broken skin or mucous membranes) with blood and body fluids of a person who is sick with Ebola, or with objects (like needles) that have been contaminated with the virus. Typically Ebola is not spread by eating or handling meat; however, the handling of bushmeat (wild animals hunted for food) is suspected to be a mode of transmission.

Symptoms associated with Ebola virus exposure are non-specific (fever, severe headache, muscle pain, vomiting, diarrhea, stomach pain or unexplained bleeding or bruising) and can occur anytime between 2 and 21 days after infection. Fatality rates are approximately 50% in the current outbreak and the ultimately cause of death is typically multi-organ failure and shock.

Several diagnostic tests have been developed to detect Ebola virus infection using enzyme-linked immunosorbent assay (ELISA), polymerase chain reaction (PCR), virus isolation, or immunohistochemistry laboratory techniques. Unfortunately, no safe and effective treatments have been developed to cure Ebola infection; so, patients are treated by alleviating their symptoms through supportive care. If infection is detected early, proper hydration, maintaining proper oxygen status and blood pressure and treating secondary infections with antibiotics can improve survival rates.

We welcome firsthand comments, reports, and blogs from TOA members in affected countries.

References
http://www.cdc.gov/vhf/ebola/index.html
http://www.who.int/mediacentre/factsheets/fs103/en/

Contributors
Melanie Abongwa
Elena Braithwaite
Sidney Green

Kimberly Hodge-Bell
Darryl Hood
Tony Ndifor

Editors
Elena Braithwaite
Kimberly Hodge-Bell

Copy Editors
Tony Ndifor