



GETA NEWSLETTER

Vol. 29, No. 3

October 2008

A publication of the Genetic and Environmental Toxicology Association (GETA) of Northern California

Fall Dinner Meeting

“The Clinical Relevance of Post Traumatic Stress Disorder (PTSD) Brain Imaging Research”

Speaker: Steven H. Woodward, PhD

**National Center for PTSD, Dissemination and Training Division
Psychology Service, VA Palo Alto Health Care System**

**Thursday, November 6, 2008
Terrace Café - Palm Room
Best Western El Rancho Inn & Suites
1100 El Camino Real, Millbrae, CA 94030
650-588-8500**

Brain imaging is now informing all areas of psychiatry. Dr. Steven Woodward will discuss findings in the brains of persons with posttraumatic stress disorder, a condition that afflicts at least 7% of all new returnees from Iraq and Afghanistan, and 20-30% of those seeking VA care. These findings have played a major role in our understanding of PTSD. Recent findings provide hope that functional neuroimaging may soon guide the development not only of pharmacological but also behavioral treatments. Additional information regarding Dr. Woodward's research can be found in the abstract included in this Newsletter.

***Registration Deadline is Friday October 31st (by mail)
or Wednesday November 3rd (3 pm by e-mail)!***

SPEAKER ABSTRACT

Hippocampal Volume, PTSD, and Alcoholism in Combat Veterans.

Steven H. Woodward, Ph.D., Danny G. Kaloupek, Ph.D., Chris C. Streeter, M.D., Matthew O. Kimble, Ph.D., Allan L. Reiss, M.D., Stephan Eliez, M.D., Lawrence L. Wald, Ph.D., Perry F. Renshaw, M.D., Ph.D., Blaise B. Frederick, Ph.D., Barton Lane, M.D., Javaid I. Sheikh, M.D., Wendy K. Stegman, B.A., Catherine J. Kutter, Ph.D., Lorraine P. Stewart, M.A., Rebecca S. Prestel, B.A., and Ned J. Arsenault, B.A. *Am J Psychiatry* 163:674-681, April 2006

Studies imposing rigorous control over lifetime alcohol intake have usually not found smaller hippocampal volumes in persons with posttraumatic stress disorder. Because the majority of negative studies have used adolescent samples, it has been suggested that chronicity is a necessary condition for such findings. To test the hypothesis that a smaller hippocampus in PTSD is unrelated to comorbid alcoholism or to chronicity, this study estimated hippocampal volume in a relatively large group (N=99) of combat veterans in which PTSD, lifetime alcohol abuse/dependence, and Vietnam versus Gulf War service were crossed. In subjects with histories of alcoholism, unadjusted hippocampal volume was 9% smaller in persons with PTSD than in those without PTSD. In nonalcoholic subjects, the PTSD-related difference in hippocampal volume was 3%. The failure to observe a strong association between PTSD and hippocampal volume in nonalcoholic subjects was not ascribable to younger age, reduced PTSD chronicity, or lower PTSD symptom severity. The possibility that smaller hippocampal volume is limited to groups in which PTSD is compounded by comorbid alcoholism is not necessarily incompatible with results suggesting a smaller hippocampus is predispositional to PTSD. Further examination of the role of alcoholism and other comorbid conditions in studies of brain structure and function in PTSD appears warranted. The possibility that smaller hippocampal volume is limited to groups in which PTSD is compounded by comorbid alcoholism is not necessarily incompatible with results suggesting a smaller hippocampus is predispositional to PTSD. Further examination of the role of alcoholism and other comorbid conditions in studies of brain structure and function in PTSD appears warranted.

2008 GETA Executive Board

The Executive Board is given the responsibility of determining all policy and business related to the Association. To this end, you are urged to contact any Board member with any suggestions you may have, concerns, meeting topics, and general business to be considered.

Officers (*Program Chair)

| | | Phone | E-Mail |
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| Student/Postdoc | Open position | | |



Symposium Review

...by *Greg Brorby*

The GETA “Late Spring/Early Summer” symposium was held at the Elihu M. Harris Building in Oakland on June 19, 2008. The topic of the symposium was “Chemicals... Chemicals...Everywhere! Evaluating the Potential Exposure to Chemicals in Consumer Products.” Representatives from government, private industry and the legal community provided different perspectives on the topic, ranging from toxicology and exposure considerations, to enforcement, to challenges associated with using science in a legal context. Each of the presentations is summarized below.

Dr. Ling-Hong Li, a Staff Toxicologist with California EPA’s Office of Human Health Hazard Assessment (OEHHA), was the first speaker of the symposium. The title of his presentation was “Reproductive Toxicity Of Phthalates: From Rodents To Men.” Dr. Li began with a brief overview of the developmental and reproductive toxicity of phthalates in laboratory animals; however, the focus of his presentation was on the observed testicular toxicity of diethylhexyl phthalate (DEHP) in rats and its relevance to humans given the absence of such toxicity in marmosets, a new world monkey. In his opinion, the rodent data are relevant to humans for several reasons. First, the metabolism of DEHP in humans is similar to that in rats. Second, there are several postulated modes of action in rats for which humans have the capacity. Third, testicular toxicity has been observed in other primates (cynomolgus monkeys; an old world primate). As to why testicular toxicity is not observed in marmosets, Dr. Li explained that the hormonal regulation of spermatogenesis in the marmoset is remarkably different than in the rodent, macaque, and man, safety pharmacology early in drug development, individualizing the “risk assessment” for each project and compound, and continuing research and/or refining predictive tools for cardiovascular risk.

Mr. Greg Brorby, a Senior Managing Scientist with Exponent, was the second speaker. The title of his presentation was “Considerations For Estimating Exposure To Chemicals In Consumer Products.” Prompted in part by the numerous product recalls in late 2007 and early 2008, Mr. Brorby focused his presentation on lead, with particular attention on exposure via hand-to-mouth contact. He began with an overview of occupational and consumer lead standards, lead product standards, and different types of sample analyses (total lead, soluble lead, wipe testing). Mr. Brorby spent the remainder of his presentation on case studies involving product content samples, product wipes, fingertip wipes, and behavior studies. Based on actual product testing, Mr. Brorby showed that there is no clear relationship between product lead content and product wipes and that product wipes remove more material than fingers/hands; therefore, hand/finger wipe data obtained after product handling best represents the amount of lead that is available for hand-to-mouth contact. He further showed that data from consecutive hand/finger wipes

indicates that not all of the lead is removed on the initial wipe (i.e., hand-to-mouth transfer does not equal 100%). Finally, based on behavior studies, Mr. Brorby showed that duration of contact does not necessarily increase fingertip loading, and the touching of other objects may, but not always, decrease fingertip loading. In combination, these data suggest that reliance on default transfer factors does not adequately account for differences in product handling or product surfaces and that it is best to design a study that simulates handling and use of the particular product(s) of interest.

Ms. Deblyn Palella, an Instrumentation Specialist with Geotechnical Services, was the third speaker. The title of her presentation was “Thermo Scientific NITON Analyzers: Solving Problems with XRF.” Ms. Palella presented an overview of the use of x-ray fluorescence (XRF) to measure lead and other metals in consumer products in general, and the capabilities of the NITON Analyzer in particular. As she discussed, XRF is now commonly being used as a field-screening device for a variety of consumer products. The NITON Analyzer has different modes depending on the composition of the product (e.g., metal vs. plastic) and can distinguish between lead (or other metals) in a surface layer and below the surface layer. The NITON Analyzer can be used to evaluate small components of a larger product as well as wipe samples. Ms Palella ended her presentation by testing a variety of products brought in by the attendees.

Mr. Gale Filter, the Deputy Director of Enforcement and Emergency Response with Cal-EPA’s Department of Toxic Substances Control (DTSC), was the fourth speaker. The title of his presentation was “Toxics in Products: the Good, the Bad... and Deadly? Current Laws and Enforcement.” Mr. Filter discussed two recent laws, one related to lead in jewelry and the other related toxics and packaging. The lead in jewelry law, which was signed in 2006, applies to those who manufacture, ship, sell, or offer for sale jewelry or children’s jewelry for retail sale in California. Children’s jewelry had to comply by September 1, 2007 and all other jewelry, including body piercings, by March 1, 2008. The law classifies jewelry material into three categories: class 1 (does not contain lead), class 2 (electroplated metal with less than 10% lead until August 30, 2009 and less than 6% lead thereafter), and class 3 (neither class 1 or class 2 and contains less than 0.06% lead). Mr. Filter outlined DTSC’s implementation and enforcement activities, including preparation and distribution of outreach materials, identification of subject jewelry and businesses, and inspections. To date, more than 65% of the children’s jewelry items tested by the state met the law’s requirements for lead. Mr. Filter than discussed the Toxics in Packaging law, which has been in force since January 1,

Continued on next page....

GETA Past Presidents

| | | | | | |
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| 1980 | Anthony Carrano | 1990 | Carol Green | 2000 | Jim Cleaver |
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| 1982 | James MacGregor | 1992 | James Tucker | 2002 | Melanie Marty |
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| 1987 | Martyn Smith | 1997 | Rob Scofield | 2007 | Amy Arcus |
| 1988 | Ann Burrell | 1998 | Kim Hooper | | |
| 1989 | Regine Goth-Goldstein | 1999 | Janice Yager | | |

...Spring Review concluded.

2006. The law applies to any container used for marketing, protecting, or handling of a product, and manufacturers and suppliers must provide a certificate of compliance. The law bans the selling or promoting of packaging that contains lead, mercury, cadmium, and/or hexavalent chromium unless the combined presence is incidental to manufacture or distribution and no more than 100 ppm. Exemptions include packaging for which there is no feasible alternative or if metals limit is exceeded because of added recycled material.

Dr. Eileen Notolli, a lawyer with Allen Matkins Leck Gamble Mallory & Natsis LLP, was the fifth and final speaker. The title of her presentation was "Does Science have a Role in Proposition 65? To Warn or Not to Warn: The Importance of Regulatory Guidance." Dr. Notolli began her presentation with an overview of Proposition 65, the requirements for warnings, and the roles of plaintiffs and businesses in litigation. As she explained, plaintiffs must demonstrate that the use of a product results in an exposure, and then businesses must demonstrate that the exposure poses no significant risk. Importantly, compliance with other federal or state regulations does not ensure compliance with Proposition 65. In addition, there is little agency guidance to assist a business in demonstrating that exposure does not pose a significant risk, especially with regard to evaluating the potential for hand-to-mouth exposure. Using lead in jewelry as a case example, Dr. Notolli explained that significant data were collected on total and leachable lead in different components; however, no agreement on exposure assumptions could be reached

between the parties (e.g., how long does an average user wear or handle jewelry, how much lead is transferred from the jewelry to the hand and then from the hand to the mouth). A total lead assay was ultimately chosen for lead in jewelry as a practical matter. However, in closing, Dr. Notolli emphasized that more agency guidance on evaluating exposures would allow businesses to more pro-actively assess their products with more certainty, thus avoiding litigation.

UPCOMING NATIONAL MEETINGS

Society for Risk Analysis (SRA)

December 7-10, 2008

Boston, Massachusetts

www.sra.org

Society of Toxicology (SOT)

48th Annual Meeting

March 15-19, 2009

Baltimore, Maryland

www.toxicology.org

American Association for Cancer Research (AACR)

April 18-22, 2009

Denver, Colorado

www.aacr.org

Environmental Mutagen Society (EMS)

40th Annual Meeting

October 24-28, 2009

St. Louis, Missouri

www.ems-us.org

GETA NOW HAS YAHOO GROUPS

GETA now has a YAHOO group. The URL for the GETA group is:

<http://groups.yahoo.com/group/getamembers/>

Using the links to the left members can post messages, list files, create polls, etc. It's easy and best of all it's free. Using the "Members" link on the left members can access and edit preferences. Contact Drew Olaharski Andrew.Olaharski@gmail.com if you have questions.

CHECK OUT THE GETA WEBSITE

www.ems-us.org/geta

You can download previous Newsletters and find links to selected speaker presentations from past meetings. Website generously hosted by the Environmental Mutagen Society!.

Registration Form

GETA FALL DINNER MEETING

Thursday, November 6, 2008
Registration 5:45 to 7:30 pm
Reception 5:45 to 6:30 pm, Dinner 6:30 pm
Presentation 7:30 pm

Terrace Cafe, Palm Room
Best Western El Rancho Inn & Suites
1100 El Camino Real, Millbrae, CA 94030

Name: _____

Address: _____

Phone: _____

E-mail: _____

GETA Member? Yes No (circle one)

Registration Fee (including dinner):**

Regular Members: \$20

Student Members: \$ 7.50

Full-time Registered Students/Post-Doc

(includes 1-yr membership): \$15

Non-members (includes 1-yr membership): \$40

TOTAL ENCLOSED: _____

**There is a \$10 surcharge for same-day registration w/o an RSVP

DINNER includes salad, entree, seasonal vegetables, French bread and butter, dessert, coffee or tea.

Entree choices: (1) Mediterranean Chicken (tomato, thyme, kalamata olive butter sauce _____
and wild rice

(2) Grilled Salmon Filet (with an orange saffron sauce and rosemary _____
roasted red potatoes

(3) Roasted Vegetable Pave (portabello mushroom, tomato squash, _____
spinach, and basil mashed potatoes

Send this completed registration form and check (made payable to **GETA**)
and postmarked by **Friday October 31st to:**

GETA
991-C La Mesa Terrace
Sunnyvale CA 94086-2416

You may also make reservations by e-mail by Monday November 3rd at 3 pm to:
rsvp2geta@bigfoot.com, and pay at the door (cash/check)

*You will be billed if you fail to attend the meeting, unless you
cancel before Monday, November 3rd, 2008 at 3 pm*



President's Comments

.... by *Lida Antonian*

October is almost over and national and GETA elections are coming up next month! Between the record drops in global stock markets and a spread of the U.S credit freeze, it looks increasingly likely that our upcoming dinner meeting on November 6th could provide us better tools to deal with post traumatic stress disorder. Our speaker, Dr. Steven Woodward will talk about "The Clinical Relevance of Post Traumatic Stress Disorder (PTSD) Brain Imaging Research." Look for the meeting details on our website http://www.ems-us.org/GETA/upcoming_meetings.html.

It is time again for GETA elections for the executive board and the steering committee. Several positions are up for election and we will be sending out election ballots in early November. If you are interested in a particular position, there is still time until the end of October to notify us of your interest. Please contact Lida Antonian (lidaant@comcast.net) or Greg Brorby (gbrorby@exponent.com). Below are the vacant positions.

1) The term of the **President-elect** is one calendar year, after which the president-elect automatically becomes president. The President-elect will work with the President in organizing the scientific meetings for that year.

2) **Secretary and Newsletter Editor** is a two calendar year term. The position keeps records of the association, issues meeting minutes, edits and electronically publishes our newsletters.

3) **Steering Committee Members** assist the executive board in building and growing GETA membership in the business, academic and government communities. Terms are for two calendar years. We have four positions to vote on. **Business Representative, University Representative**, and two positions for **Student/Post-doc Representative**.

I encourage all of us to be active in the celebration of GETA's 30th anniversary year in 2009. You will hear more on this topic in the upcoming months. As practitioners of environmental and genetic toxicology sciences, it is important that we help people outside our craft appreciate the positive impact that research in environmental and genetics toxicology has in our daily lives. I have had the privilege to serve this toxicology organization for two years and yet I am trained in drug metabolism and pharmacokinetics. I have gained friends and a greater insight in toxicology. Let us reach out and increase our membership, especially students.

Thanks for reading.

Lida

GETA DUES NOW DUE IN JANUARY

As many of you have discovered, GETA has begun converting our term of memberships to a calendar year basis. Previously, memberships expired on the anniversary of the date of sign-up or renewal. While that practice is seemingly simple, it has created a series of administrative problems. The most obvious problem is for both the members and GETA to remember when a membership is about to expire. We have been trying to make the conversion process as easy as possible, while trying to minimize any adverse financial consequences for our members. One of the ways that we are trying to facilitate this conversion can be seen in the schedule of registration fees for our next meeting. Paid up members are charged one price, while non-members are charged that same base price plus \$15 and will include membership for the remainder of this calendar year. To encourage attendance and membership by students and postdocs, their heavily subsidized registration fee will also include GETA membership for the balance of 2008.

If anyone has serious objections to these practices or suggestions for improvements, please send your comments to DrBob@iname.com. To avoid my spam filters, do not include in the subject line the name of any pharmaceutical, favorite body part, or the words "mortgage", or "prize winner". But all of you knew that already, right?

Bob

GETA NEWSLETTER GOES ELECTRONIC!

After consideration by the GETA Board, it was decided to eliminate mailing paper copies of the Newsletter and instead, send it to the membership as a pdf file via e-mail. A review of the membership rolls showed that all members had provided e-mail addresses.

It now becomes even more important for members to keep the GETA Membership Officer informed of changes in contact information, especially e-mail addresses.

If you need to update your information, send an e-mail to Drew Olaharski at Andrew.Olaharski@gmail.com

**DON'T RISK MISSING AN ISSUE
OF THE NEWSLETTER!**

KEEP YOUR INFO UP TO DATE!



GETA MEMBERSHIP

(New or Renewing Members)

Name _____

Title _____

Affiliation _____

Address _____

Business Phone _____

FAX Number _____

E-Mail Address _____

Please give the above information as you would like it to appear in the
On-Line Membership Directory.

RENEWING MEMBERS PLEASE TAKE A MINUTE TO UPDATE YOUR ADDRESS!!

New Member _____ Renewal _____ Check here if above address is new _____

Regular Member, 1 year \$15
Regular Member, 2 year \$25 (*save 5 bucks!*)
Regular Member, 3 year \$35 (*save 10 bucks!!*)
Student/Postdoc, 1 year \$ 7

Total Enclosed _____

Please send this completed form and check made payable to **GETA** to:

GETA Membership
c/o Drew Olaharski
3431 Hillview Ave, A5-2
Palo Alto, CA 94304