



# Immunotoxicology Specialty Section Newsletter

**2012-2013  
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**Student Representative  
Kinta Serve**

The ImTox SS Newsletter is published 3 times/year (Summer, Fall, and Winter). If you would like to share an item of interest with members of the ImTox SS, please send it to the Communications Committee Co-Chairs. All comments on, or suggestions to, the newsletter are welcome.

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## President's Message

**Gregory S. Ladics, PhD, DABT, ATS**



Dr. Greg Ladics  
President, ImTox SS  
2012-2013

As we begin 2013, please don't forget some key upcoming events: 1) to begin the planning of scientific session submissions for the 2014 SOT meeting in Phoenix, Arizona; 2) to nominate individuals for awards and leadership roles in the SS; and 3) to renew your SS membership.

Danuta Herzyk is the program committee chair for the 2014 meeting and each program committee member is expected to submit a suggested program proposal. I am pleased to announce that our proposal to SOT for joint programming with the Japanese Society of Immunotoxicology for the 2012-2013 International Exchange Program has been approved by the Global Initiatives Committee of SOT. We have been awarded matching funds (\$2000) in support of our initiatives with JSIT. Most recently, Henk van Loveren and Emanuela Corsini spoke in September at the 19<sup>th</sup> Annual Meeting of JSIT on "Overview and Application of the WHO/IPCS Harmonized Guidance for Immunotoxicity: Risk Assessment for Chemicals" and "Current Trend on In Vitro Immunotoxicology in EU", respectively.

As noted in the last newsletter, one idea for SS is to put a proposal forward for an SOT Contemporary Concepts in Toxicology (CCT) meeting around immunotoxicology. CCT meetings are one- to two-day focused, open registration, scientific meetings in contemporary and rapidly progressing areas of toxicological sciences.

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SOT will underwrite all the liabilities of the CCT meeting with the expectation that the meeting will at least break even financially. SOT will provide \$25,000 in seed funds. Once the meeting breaks even, there is the opportunity for profit sharing of the additional revenue with our specialty section. CCT proposal details are available at [www.toxicology.org/ai/meet](http://www.toxicology.org/ai/meet). I would like to form a small but diverse ad hoc committee to work on this goal in 2013. A CCT meeting on Autoimmunity and Hypersensitivity is being proposed. If you are interested in working on this CCT proposal, please send me a note at [Gregory.s.ladics@usa.dupont.com](mailto:Gregory.s.ladics@usa.dupont.com).

I look forward to seeing everyone at the SOT Meeting in March in San Antonio.

Gregory S. Ladics, Ph.D., DABT, ATS  
President, Immunotoxicology Specialty Section

## Student & Postdoctoral Report

Submitted by:



Teri Girtsman, PhD  
(Postdoctoral Representative)

Greetings to all student and postdoctoral members of the ImTox SS! I hope you are all safe, sound and knee deep in fruitful data!

We need to make you aware of some awesome opportunities for the students and postdocs of the SOT.

First, our own Dr. Rodney Reynolds Dietert, Cornell University, and Janice Dietert, Performance Plus Consulting, will be leading a PDA-Sponsored Workshop Event at SOT on **Monday, March 11 from 1:45-3:45**. More workshop-specific information can be found on the SOT

meeting page under the postdoc student activities drop down menu. This PDA-sponsored workshop is open ONLY to students and postdocs and is FREE but requires registration at the time of the meeting registration.

### Postdoctoral Assembly Workshop: Tools for Bringing Creativity into Your Scientific Research

When are Legos not just for kids? When they are a valuable problem-solving tool for your scientific research. Overcoming roadblocks during a research career can be a challenge particularly when you are using the same set of tools that got you into the roadblock in the first place.

Traditional research training often emphasizes linear

approaches and the value of greater focus and harder work. Yet, history tells us that many of the most remarkable scientific breakthroughs occur when our attention has been diverted. Nonlinear approaches to problem solving provide additional avenues for the budding researcher. This workshop on enhancing creativity in scientific research will provide lecture material and hands-on exercises including the use of play, meditation, sleep, music, dance, art, improv, language, and body adjustments, concept maps, synchronicity, and strategies for becoming the observer of your own research progress.

And that's not all, there's even more free stuff to enhance your scientific expertise!

*Continued on p.3*

SOT and the Continuing Education Committee invite the Immunotox Specialty Section to register for online continuing education courses offered by **CEd-Tox**. Currently there are 27 online courses available for viewing. [http://www.toxicology.org/AI/ce/ce\\_video/index.asp](http://www.toxicology.org/AI/ce/ce_video/index.asp)

A few of these courses may be of special interest to Immunotoxicology Specialty Section members:

***Drug Hypersensitivity Reactions: Risk Assessment and Management (2011)***

***Overview and Application of the WHO-IPCS Harmonized Guidance for Immunotoxicity Risk Assessment for Chemicals (2012)***

These courses are a great way to expand professional development or stay current in the field of toxicology.

Many additional courses are available from the Annual Meetings from 2009-2012. Registration provides 30-day unlimited access to complete the course at any time or location.

Course attendance certification letters are

available upon completion of the course. ***Graduate Student and Postdoc members of SOT receive free access to courses!***  
Contact Email: [David Rossé \(davidr@toxicology.org\)](mailto:David.Rossé@toxicology.org)

The Graduate Student Leadership Committee (GSLC) is starting to organize some fun events for graduate students and post-doctoral fellows attending the 2013 SOT meeting. We will once again host "Chat with an Expert" sessions throughout the meeting as well as the annual Graduate Student/ Post-Doc Mixer. We are trying to incorporate some new activities into the mixer and would love your suggestions! Also, we are soliciting contestants for the Tox ShowDown, so enter yourself or encourage your co-workers or advisor to enter. You can send any comments about these events to Kinta Serve at [servekint@isu.edu](mailto:servekint@isu.edu).

One more reminder, there are a number of awards available to graduate students and post docs, including training and travel awards. If you are interested, you can find more information on the SOT website at <http://www.toxicology.org/ai/af/awards.aspx>.

Also, be sure to check out the ImTox SS awards list as the deadlines are approaching!

As always, we would like to thank you for this opportunity to serve you. Please let us know about any concerns or suggestions you may have on how the ImTox SS can best assist you as immunotoxicology students and postdoctoral fellows! I look forward to hearing from you!

Postdoctoral Representative:  
Teri Alyn Girtsman Ph.D.  
[teri.girtsman@umontana.edu](mailto:teri.girtsman@umontana.edu)

Student Representative:  
Kinta Serve  
[servekint@isu.edu](mailto:servekint@isu.edu)

## ATTENTION GRAD STUDENTS!

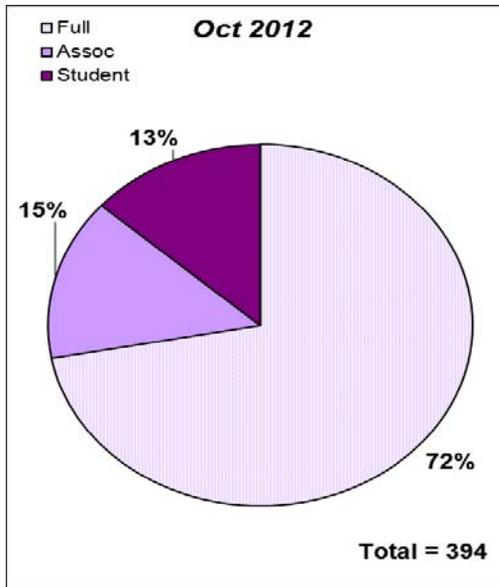
Our current student representative is on the docket to graduate in 2013. If you are interested in this position please talk to your mentors and consider taking a few seconds to chat with Kinta Serve at the upcoming SOT meeting for insight into the position requirements.

A formal call for nominees will come at a later date.

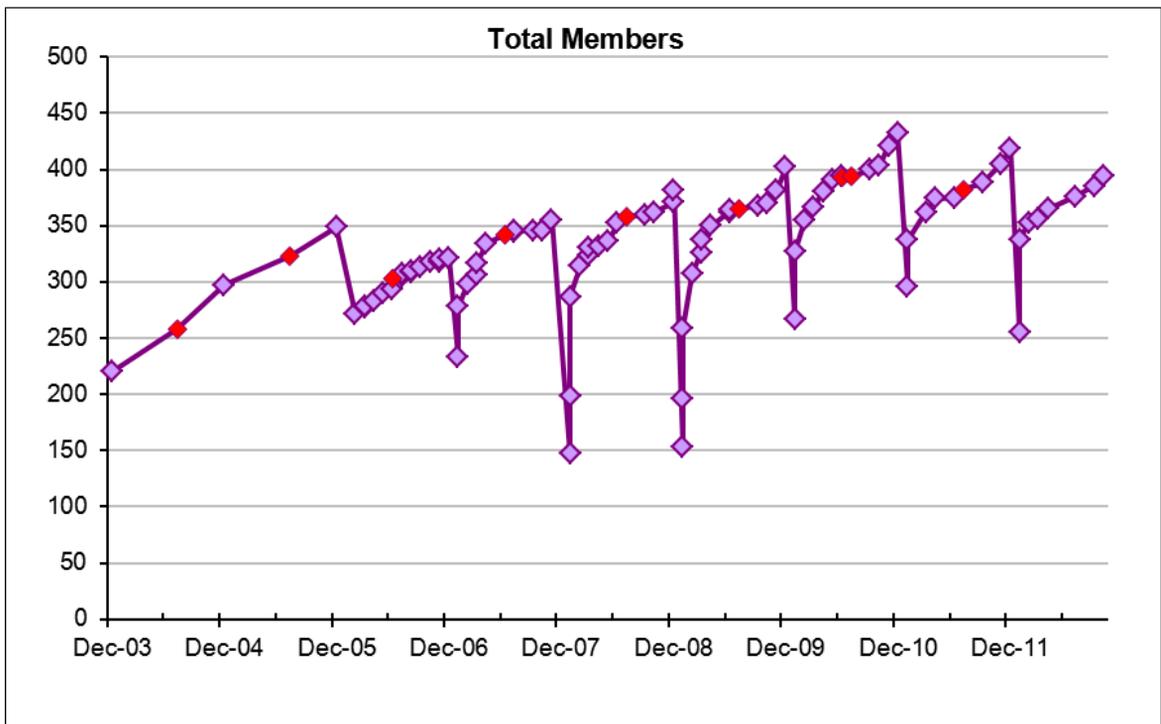
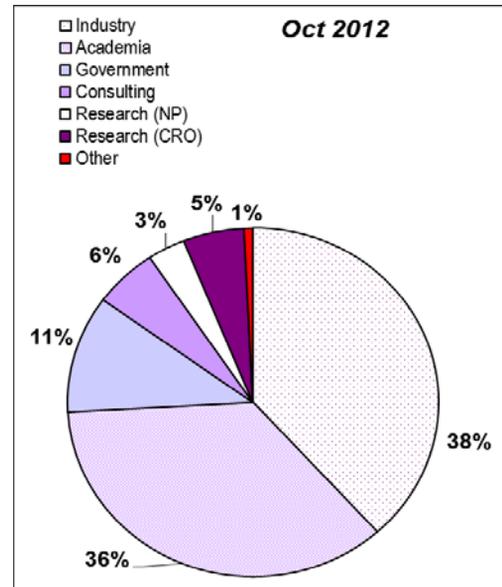
# Membership Committee Report

Submitted by: George DeGeorge, PhD, DABT

Breakdown by Membership Category



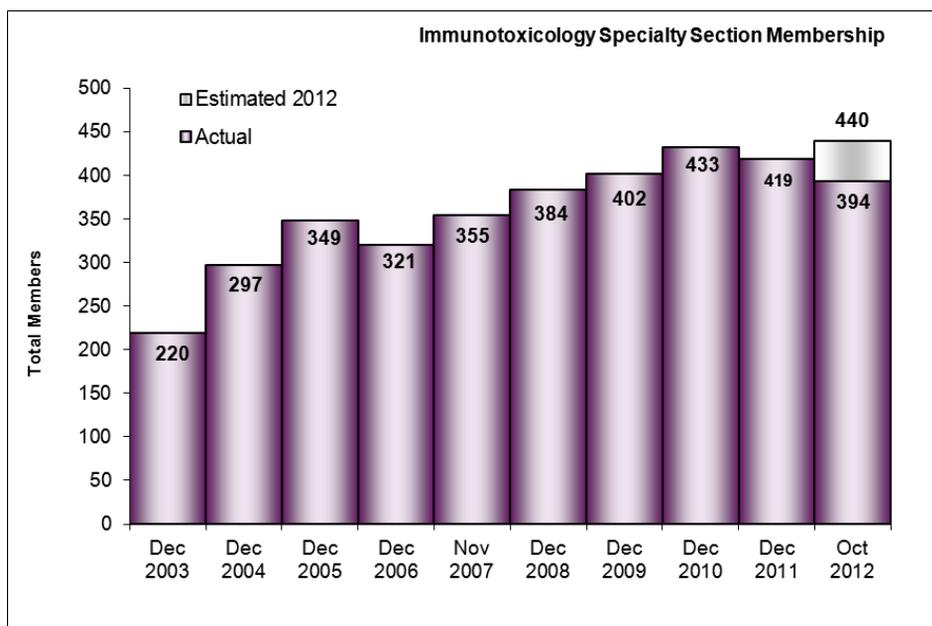
Breakdown by Organization Category



Note: the dip occurs at the end of the year, when some members have not yet renewed their memberships

## Membership Committee Report Continued

Submitted by: George DeGeorge, PhD, DABT



\* Estimated = an arbitrary 5% increase over December of last year



## Update on Japanese Society of Immunotoxicology Meeting

Submitted by: Henk van Loveren, PhD and Emanuela Corsini, PhD

Emanuela Corsini and Henk van Loveren were invited to represent the Immunotoxicology Speciality Section of the SOT at the Annual Meeting of the Japanese Society of Immunotoxicology, held in Tokyo on 15 and 16 September, 2012. The meeting, aimed at “novel aspects of immunotoxicological diseases” was impressive in the sense that there was quite a large group of scientists from Japan who are active members of this Society. Most lectures were in Japanese, so it was a bit difficult to follow the presentations, but looking at the slides one got the impression of the advancements made and the real focus on mechanistic research.

Henk van Loveren presented a lecture entitled “Overview and Application of the WHO/IPCS Harmonized Guidance for Immunotoxicity Risk Assessment for Chemicals” and Emanuela Corsini presented a lecture entitled “Current trend on in vitro immunotoxicology in Europe.”

Both lectures were well received as they were to a certain extent on a different level than most other presentations, i.e. alternatives for animal testing and on risk assessment. The seminars well complemented the series of lectures within the meeting.

## Call for Nominations from the Awards Committee

*Submitted by: Jean Pfau, PhD*

Recognizing the scientific contributions of our students and colleagues is, in my opinion, one of the most important things we do. It not only recognizes them, but also publicizes the accomplishments of our Specialty Section toward the mission of SOT. The Awards Committee strongly encourages you to nominate your colleague(s), including self-nominations, for the various awards presented by the Immunotoxicology Specialty Section. We hope to continue to see the same high quality of nominees that challenges the Committee to choose among our very best!

### **Vos Award - Career Achievement in Immunotoxicology**

An award named for the late Prof. Jeff Vos shall be presented to a Senior Investigator with outstanding career achievements in immunotoxicology. Nominations should be submitted to Greg Ladics by January 18, 2013 ([Gregory.S.Ladics@cqr.dupont.com](mailto:Gregory.S.Ladics@cqr.dupont.com)).

### **Best Paper of the Year Award**

This honored award shall go to the authors of the best paper in immunotoxicology published between July 1, 2011 and December 31, 2012. Nominations should be submitted to Jean Pfau ([pfau.jean@isu.edu](mailto:pfau.jean@isu.edu)) by January 18, 2013.

### **Outstanding Young Investigator Award**

Promising young investigator(s) who have already had an impact on academic, regulatory or industrial areas of immunotoxicology shall be awarded. Nominations should be submitted to

Gary Burleson ([gburleson@brt-labs.com](mailto:gburleson@brt-labs.com)) by January 18, 2013.

### **Best Presentation by a Postdoctoral Trainee Award**

Nominees are asked to submit a complete written version of an immunotoxicology presentation that is to be made at the 2013 SOT Annual Meeting, along with a letter of nomination from the Postdoctoral Trainee's advisor. Nominations should be submitted to Jean Pfau ([pfau.jean@isu.edu](mailto:pfau.jean@isu.edu)) by January 18, 2013.

### **Best Presentation by a Student Award**

Nominees are asked to submit a complete written version of an immunotoxicology presentation to be made at the 2013 SOT Annual Meeting, along with a letter of nomination from the student's advisor. Nominations should be submitted to Jean Pfau ([pfau.jean@isu.edu](mailto:pfau.jean@isu.edu)) by January 18, 2013.

### **HESI Immunotoxicology Young Investigator Travel Award**

This endowment award is offered by ILSI HESI to encourage young investigators within 5 years of receiving a Ph.D. to present their research at the 2013 SOT Annual Meeting. Nominations should be submitted to Greg Ladics by January 18, 2012.

([Gregory.S.Ladics@cqr.dupont.com](mailto:Gregory.S.Ladics@cqr.dupont.com))

Detailed descriptions of all the awards are on the website:

<http://www.toxicology.org/ISOT/SS/imtox/deadlines.asp>.



## POST DOC POSITION ANNOUNCEMENT!

The Toxicology and Environmental Research & Consulting (TERC) group at The Dow Chemical Company in Midland, Michigan has a unique and challenging opportunity for a **Respiratory Allergy & Toxicology Post Doctoral Fellow**.

This fellow will participate in a research program that is evaluating novel approaches (toxicogenomics, plethysmography) anchored to airway epithelial remodeling (quantitative morphometry) for assessing the respiratory sensitization and allergy potential of various chemicals and proteins.

The individual will be expected to publish their research in peer reviewed journals.

### Qualifications

A PhD in Pharmacology or Toxicology with an emphasis in immunotoxicology, allergy, asthma, respiratory physiology & toxicology or animal models of chronic respiratory disease is highly preferred. Other related scientific disciplines will be strongly considered (e.g., immunology, respiratory or pulmonary toxicology, etc.).

Strong written and oral communication skills that allow dissemination of complex technical issues in a clear, concise manner are required.

The following skills and/or experiences will be highly sought after:

Laboratory experience in one or more of the following areas: immunotoxicology, molecular biology (genomics), allergy, asthma, respiratory physiology and toxicology, and/or animal models of chronic respiratory disease.

Experience working with inhalation exposure equipment

Experience with immune assays

Demonstrated ability to work independently.

Please apply at: <https://dow.taleo.net/careersection/10020/jobdetail.ftl?job=1210547>

## SAVE THE DATE!

**52<sup>nd</sup> Annual Society of Toxicology Meeting**  
**March 10-14, 2013**  
**San Antonio, Texas**

### ImTox Specialty Section Reception

**Tuesday, March 12, 6-7:30 pm**

Grand Hyatt San Antonio (adjacent to the convention center)



Anytime you have a new fully-published or electronically-available article to report, please send the citation to the coordinator, Haley Neff-LaFord: [hnlaford@seagen.com](mailto:hnlaford@seagen.com)

### **Asthma, Allergy, Autoimmunity & Hypersensitivity**

Fukuyama T, Kosaka T, Miyashita L, Nishino R, Wada K, Hayashi K, Ueda H, and Harada T. Role of regulatory T cells in the induction of atopic dermatitis by immunosuppressive chemicals. *Toxicol Lett* 213:392-401, 2012.

Shindo T, Kanazawa Y, Saito Y, Kojima K, Ohsawa M and Teshima R. Effective induction of oral anaphylaxis to ovalbumin in mice sensitized by feeding of the antigen with aid of oil emulsion and salicylate. *Toxicol Sci* 73:307-315, 2012.

Schulz VJ, Smit JJ, Huijgen V, Bol-Schoenmakers M, van Roest M, Kruijssen LJW, Fiechter D, Hassing I, Bleumink R, Safe S, van Duursen MBM, van den Berg M, and Pieters RHH. Non-dioxin-like AhR ligands in a mouse peanut allergy model. *Toxicol Sci* 128:92-102, 2012.

### **Developmental Immunotoxicology**

Holásková I, Elliott M, Hanson ML, Schafer R and Barnett JB. Prenatal cadmium exposure produces persistent changes to thymus and spleen cell phenotypic repertoire as well as the acquired immune response. *Toxicol Appl Pharmacol* 265:181-189, 2012.

Ahmed S, Ahsan KB, Kippler M, Mily A, Wagatsuma Y, Hoque AMW, Ngom PT, El Arifeen S, Raqib R and Vahter M. *In utero* arsenic exposure is associated with impaired thymic function in newborns possibly via oxidative stress and apoptosis. *Toxicol Sci* 129:305-314, 2012.

Hochstenbach K, van Leeuwen DM, Gmuender H, Gottschalk RW, Stølevik SB, Nygaard UC, Løvik M, Granum B, Namork E, Meltzer HM, Kleinjans JC, van Delft JHM and van Loveren H. Toxicogenomic profiles in relation to maternal immunotoxic exposure and immune functionality in newborns. *Toxicol Sci* 129:315-324, 2012.

Robinson JF, Verhoef A, van Beelen VA, Pennings JLA, and Piersma AH. Dose–response analysis of phthalate effects on gene expression in rat whole embryo culture. *Toxicol Appl Pharmacol* 264:32-41, 2012.

### **General Immunotoxicology**

Andersson-Willman B, Gehrman U, Cansu Z, Buerki-Thurnherr T, Krug HF, Gabrielsson S and Scheynius A. Effects of subtoxic concentrations of TiO<sub>2</sub> and ZnO nanoparticles on human lymphocytes, dendritic cells and exosome production. *Toxicol Appl Pharmacol* 264:94-103, 2012.

Fang L, Zhao F, Shen X, Ouyang W, Liu X, Xu Y, Yu T, Jin B, Chen J and Luo W. Pb exposure attenuates hypersensitivity *in vivo* by increasing regulatory T cells. *Toxicol Appl Pharmacol* 265:272-278, 2012.

## General Immunotoxicology Continued:

Katika MR, Hendricksen PJM, Shao J, van Loveren H, and Peijnenburg A. Transcriptome analysis of the human T lymphocyte cell line Jurkat and human peripheral blood mononuclear cells exposed to deoxynivalenol (DON): New mechanistic insights. *Toxicol Appl Pharmacol* 264:51-64, 2012.

Vlasova II, Vakhrusheva TV, Sokolov AV, Kostevich VA, Gusev AA, Gusev SA, Melnikova VI and Lobach AS. PEGylated single-walled carbon nanotubes activate neutrophils to increase production of hypochlorous acid, the oxidant capable of degrading nanotubes. *Toxicol Appl Pharmacol* 264:131-142, 2012.

Wang T, Wyrick KL, Pecka MR, Wills TB and Vorderstrasse BA. Mechanistic exploration of AhR-mediated host protection against *Streptococcus pneumoniae* infection. *Int Immunopharmacol* 13:490-498, 2012.

## Methods

Lalko JF, Kimber I, Gerberick GF, Foertsch LM, Api AM and Dearman RJ. The direct peptide reactivity assay: selectivity of chemical respiratory allergens. *Toxicol Sci* 129:421-431, 2012.

Liu Z, Yuan C and Pruett SB. Machine learning analysis of the relationship between changes in immunological parameters and changes in resistance to *Listeria monocytogenes*: A new approach for risk assessment and systems immunology. *Toxicol Sci* 129:57-73, 2012.

## Reviews/Workshops/Editorials

Dietert R and Dietert J. The completed self: An immunological view of the human-microbiome superorganism and risk of chronic diseases. *Entropy* 14:2036-2065, 2012.

## Books/ Book Chapters

Farmer JT and Dietert RR. Immunotoxicology assessment in drug development. Chapter 14. In: Faqi, Ali S. (Ed), *A Comprehensive Guide to Toxicology in Preclinical Drug Development*. pp. 365-381. Elsevier 2012.

Immunotoxicity, Immune Dysfunction, and Chronic Disease. Dietert RR and Luebke RW (Ed). Humana Press 2012.