President’s Message - WE NEED YOU! (and your employer)

Yes, you! The leadership of the OTSS has been working diligently over the last 6 months to ensure the longevity of this specialty section. We are at a juncture and we need the membership to become more actively involved in stabilizing and building the OTSS.

1) Firstly, we need you to **renew your membership** in the OTSS for 2012.

2) Then, we need you to **volunteer to serve** on one of the OTSS committees. If only the leadership members serve on the committees we have an overworked leadership (everyone is overworked at their day job). We have several committees that need additional help. Please contact myself (schuhj@bainbridge.net) or one of the specified executive members to volunteer your time:
   a. Nomination Committee – you must be available immediately or specify that you will serve for the 2012-2013 session (contact Mark Vezina at Mark.vezina@crl.com)
   b. Awards Committee – you must be available immediately or specify that you will serve for the 2012-2013 session. We have two awards established for 2012.
   c. Program Committee – help to set the programming for 2013 and beyond (contact Brian Christian at Brian.christian@Covance.com)
   d. Sponsorship Committee - we need to actively acquire funding for immediate (annual general meeting) and endowments (contact Nina Seme Nelson at Marina.semenelson@covance.com)
   e. Membership Committee – Help to recruit new members and students
   f. Newsletter Committee – Contact Margaret Collins (Margaret.Collins@crl.com)
   g. Outreach Committee – Help the OTSS to interact with other ocular-related groups

3) **Volunteer for Leadership positions** in 2012-2013
   We are looking for nominations for several positions. If you have time that you can spare monthly (or better yet, weekly) to the OTSS, please volunteer to help build the OTSS by nominating yourself as a leader.

   *(Continued on page 2)*
More from the President

4) **Nominate your colleagues** for the Lifetime Achievement Award in Ocular Toxicology

Do you know someone who has been involved in ocular toxicology and has a history of publications, teaching students and advancing the science of ocular toxicology? If so, please nominate you distinguished colleague for the inaugural Career Achievement Award in Ocular Toxicology. Additional information for submissions is provided in this newsletter and on-line.

5) The SOT generously provided funding for OTSS for the first three years of its existence. Now that the OTSS is transitioning to a self-supported status, we need help from the membership to obtain corporate funding for our future activities and endowments. Generously, Charles River Laboratories has and continues to fund OTSS. The Sponsorship Committee will soon be approaching individual members and asking you to help us obtain additional funding from your company. If you have additional time to contribute, volunteer to serve on the Sponsorship Committee.

6) We maintain enough members (N=84) to function as a specialty group but the OTSS leadership is aware that we need to provide you with value for your membership. Ocular toxicology is an organ specific area and we expect to always have a limited, but keenly interested, membership. **We need to hear from you** about what you need/want as members of the OTSS. Contact your leadership and let them know what you think we need to focus on for our future Program development and what will make you retain your membership in the OTSS.

The AGM will be Tuesday evening, March 13, 2012. If you are going to the SOT meeting please plan on attending this meeting.

Please also plan on attending the OTSS sponsored session on Monday, March 12, 2012: Evaluation of Ocular Safety in the Development of New Drugs.

JoAnn Schuh
President, OTSS

From the President-elect

One of the benefits of the OTSS is having an opportunity to influence the content of the scientific program at the annual meeting through sponsorship and endorsement of proposals for meeting sessions. This is our chance to highlight areas of particular interest in our specialty. The OTSS program subcommittee would like to hear from you! We want to know of your interests and ideas for session topics. We would like also to encourage submission of proposals, but want to know your thoughts either way. Please note we are also glad to help. If you have an idea and would like some feedback, or perhaps information on who may have a particular expertise, or general help with proposal submission, we encourage you to contact us. We will do our best to help. Now is the time to start. **The proposal submission deadline is the end of April for the 2013 meeting** and it is recommended that draft proposals be sent to the subcommittee for informal review at least several weeks in advance of the submission, this by the end of March.

I hope you are able to attend the OTSS-sponsored symposium “Evaluation of Ocular Safety in the Development of New Drugs” on Monday afternoon at the SOT Annual Meeting. The focus of the session will be to highlight key ocular safety assessment techniques commonly used to evaluate the eye in a nonclinical safety setting. In addition, case studies will be presented that highlight strategies as well as the challenges that may be encountered. **Look forward to seeing you at the meeting and keep the ideas coming!** They can be sent to me directly (contact info on page 1).
More from the President-elect

A synopsis of session types follows and further details can be found at https://www.toxicology.org/ms/SciSess_proposal.asp

<table>
<thead>
<tr>
<th>Annual Meeting Session Type</th>
<th>Description</th>
<th>Speakers/Duration</th>
<th>Funding</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symposia</td>
<td>recent scientific advances</td>
<td>165-minutes or less, with two chairs and 4–5 speakers.</td>
<td>Up to 2 non-members</td>
</tr>
<tr>
<td>Workshop</td>
<td>generally accepted, state-of-the-art knowledge in toxicology</td>
<td>165-minutes, with two chairs and 4–5 speakers.</td>
<td>Up to 2 non-members</td>
</tr>
<tr>
<td>Roundtable</td>
<td>Controversial subjects</td>
<td>About 80 mins with 2-4 speakers providing a ~5 min statement followed by discussion</td>
<td>Up to 1 non-member</td>
</tr>
<tr>
<td>Historical Highlights</td>
<td>Review of historical topic with toxicologic impact</td>
<td>About 80 mins one or more speakers</td>
<td>Up to 1 non-member</td>
</tr>
<tr>
<td>Informational Session</td>
<td>General information and planned scientific activities not based on outcome of scientific research</td>
<td>80 min with multiple speakers 10 to 15 min each with time for discussion. Longer session with approval</td>
<td>Up to 1 non-member</td>
</tr>
<tr>
<td>Continuing Education</td>
<td>tools and resources to toxicologists that will enhance their professional or scientific development</td>
<td>4 hr with 4-5 speakers or 1 hr (sunrise)</td>
<td>Up to non-member</td>
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</table>

A few pointers from the SOT Scientific Program Committee (SPC).....

- While the SOT uses a “Thematic Approach” to the annual meeting program (2013 themes not yet available), having the proposal correspond to the themes does not improve its likelihood of its acceptance. Program themes are intended to increase the proportion of proposals submitted in a given area of interest, however, individual proposals are ranked entirely on their own merit without regard to theme. So no need to “force” an idea to fit a theme.

- Good proposals have a focused subject with clearly stated objectives. Proposals should be relevant to toxicology, but avoid topics that may not be of broad enough interest to the SOT membership and those that are too broad which may seem like a survey of the literature. The proposal should be well integrated; describing how each speaker addresses the overall objective. Examples of highly ranked proposals can be found on the website.

- Sometimes good proposals are not able to be accepted for other reasons, e.g. topic similar to one held at a recent SOT Annual Meeting. The SPC generally encourages re-submission of good proposals (it can’t however make guarantees for acceptance in a subsequent year).

Brian Christian
President-elect, OTSS
The time has come to solicit nominees for officer and councilor representatives. This is a great way to get more involved and further influence the direction and focus of the section. Members in good standing are eligible to become a councilor or representative within the OTSS; you must be a Full, Associate, Retired, or Emeritus member for President or Secretary-Treasurer positions or Full/Associate member for a Councilor position. Nominations are open for the following positions:

- Vice President – 1-Year Term (becomes President-Elect, President, Past President in successive years)
- Secretary-Treasurer – 2-Year Term (note: requested by-law changes may split this position into Treasurer and Communications Officer positions in 2012)
- Councilor – 2-Year Term

Please consider nominating either yourself or a respected colleague to serve as an officer. For more information on either position, please see the Ocular Toxicology Specialty Section By-Laws at our Web site. Nominations should include a brief biosketch. If you are interested, please contact Mark Vézina by January 20, 2012.

Sincerely,
Mark Vézina

**Sponsorship of the OTSS - WE NEED YOU! (and your employer)**

As JoAnn mentioned, the OTSS is responsible for generating our own funding via memberships and sponsorships. Charles River Laboratories and Covance have been generous supporters. Please consider whether you or your employer can contribute as well. Specific sponsorship categories that you might wish to contribute to include:

<table>
<thead>
<tr>
<th>Amount of Donation</th>
<th>Sponsorship Categories</th>
<th>Examples of what funds will be used for*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Any amount</td>
<td>Bronze</td>
<td>General contribution for meeting expenses</td>
</tr>
<tr>
<td>$100.00</td>
<td>Silver</td>
<td>Rental of digital projector for educational program</td>
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<tr>
<td></td>
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<td>Plaque presented to winner of Lifetime Achievement Award in Ocular Toxicology</td>
</tr>
<tr>
<td>$200.00 - $500.00</td>
<td>Gold</td>
<td>Sponsorship of meeting refreshments</td>
</tr>
<tr>
<td>$501.00 - $3000.00</td>
<td>Platinum</td>
<td>Sponsorship of meeting food and refreshments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Kick start our fund for travel awards for graduate students</td>
</tr>
</tbody>
</table>

*Companies may designate that sponsorship donations be designated for a specific purpose.

The OTSS will recognize your company’s contribution by posting your company’s name on our contributor’s board; sponsors will be verbally acknowledged during the business meeting and acknowledged in our newsletter.

Checks can be made payable to: Society of Toxicology and in the memo line indicate “Contribution to OTSS” and mail to: Kimberly von Brook, Society of Toxicology 1821 Michael Faraday Drive, Suite 300, Reston, VA 20190.

Thank you for your support!
Call for Nominations from the Awards Committee

The OTSS leadership is pleased to announce that there will be 2 awards starting in 2012. In particular, we encourage you to nominate your deserving colleagues for the career achievement award by January 31, 2012.

Career Achievement in Ocular Toxicology
An engraved plaque will be awarded to an OTSS member for lifetime achievement or for contribution of a particularly influential body of work to the field of ocular toxicology. Nominations should be submitted to Nina Seme Nelson by January 31.
The nominator should provide a discussion of the role that the individual's work has played in advancing the field of ocular toxicology and the safety assessment of ocular products. A curriculum vitae and bibliography should also be included. A second letter of recommendation from another investigator in the field would be helpful.
Award Criteria: Nominees are evaluated with respect to the following criteria:
1) Contribution to the field of ocular toxicology—depth and breadth of scientific contributions and significance of contributions for advancing the field.
2) Major influence in the education/training/mentorship of young scientists in the field of ocular toxicology including training in government, industry, or academia.
3) Leadership and service to the ocular toxicology field including involvement in the Specialty Section or other meetings/organizations related to ocular toxicology.
4) Influence on regulatory and risk/safety assessment decisions related to ocular toxicology.

Best paper of the Year Award
The Informa Healthcare Award is presented for the best paper in ocular toxicology published in the Journal of Cutaneous and Ocular Toxicology. The winner receives a certificate of recognition and a subscription to the Journal of Cutaneous and Ocular Toxicology. The winner will be announced at the Annual Meeting of the Ocular Toxicology Specialty Section at the 2012 Society of Toxicology Annual Meeting.

Upcoming Events and Courses

On February 18, 2012, an electrophysiology of vision course that will focus on retina function and visual pathway science and interpretation is being offered by Ocuscience. Details are available via their website: http://www.ocuscience.us

The SOT Annual Meeting is March 11-15th in San Francisco. The OTSS AGM will be Tuesday evening, March 13, 2012. If you are going to the SOT meeting please plan on attending this meeting.

Please also plan on attending the OTSS sponsored session on Monday, March 12, 2012: Evaluation of Ocular Safety in the Development of New Drugs.

If you know of an event that would be of interest to OTSS membership, please contact any OTSS Leadership member with details.
2012-2013 By-Law Revisions

By Mark E. Blazka

The Executive Committee is proposing to revise the Ocular Toxicology Specialty Section (OTSS) By-Laws that were created when the OTSS was founded in 2008. Even though the By-Laws were created less than 4 years ago, changes in how OTSS and Society of Toxicology (SOT) function have made this document out-of-date. In order for the OTSS to continue to grow and evolve, as well as be in alignment with current SOT goals and activities, it is necessary to update the By-Laws. With this in mind, the President and Executive Committee have completed a review of the By-Laws and forwarded its recommendations to the SOT. Once the SOT has completed its review, the final recommendations will go out to our membership for review and a vote. When you receive email detailing the revisions, we hope that you will take the time to review the changes and submit your vote as it is important to have a quorum of votes to pass the proposed changes.

Our own initiative coincides with the SOT encouraging all specialty sections to review and update their By-Laws.

Some of the revisions under consideration include:

- The election of officers in the President or Treasurer chain by the membership is being revised so that full, associate, retired or Emeritus members in good standing with SOT are eligible for election.
- The addition of Student and Postdoctoral representatives to the Executive Committee.
- Splitting the responsibilities of the current Secretary-Treasurer position into that of Communications Officer (new position) and Treasurer.
- Creation of a Nomination committee responsible for identifying candidates who wish to serve on the OTSS Executive Committee.
- Creation of an Awards Committee responsible for recognizing SOT members who have made a significant contribution to advancing the objectives of the OTSS.
Updates from Ocular Meetings

Review of 2011 ACT Symposium VI: Ocular Toxicity from Systemically Administered Xenobiotics: Considerations in Drug Development

Submitted by Jim Render

The 32nd Annual Meeting of the American College of Toxicology occurred November 6-9, 2011, in Phoenix, Arizona. A symposium was held on Monday, November 7, with the title of Ocular Toxicity from Systemically Administered Xenobiotics: Considerations in Drug Development.

The symposium involved an overview of the topic and four presentations. Dr. William Brock of Principal, Brock Scientific Consulting, provided general questions that are asked when faced with an ocular finding then provided an example of ocular toxicity. Diffuse hypertrophy of the retinal pigment epithelium (RPE) occurred as a dose-related finding in rats during a 28-day oral study. When the study length was extended, the findings became worse and involved the sensory retina. In this study, it was concluded that diffuse hypertrophy of the RPE was an indicator of more severe retinal toxicity.

Dr. Jeff Jamison of Ophthy-DS, Inc., and MPI Research provided an overview of noninvasive measures that may be used clinically to help characterize ocular toxicity. Techniques included slit lamp biomicroscopy, fundus photography, retinal angiography, optical coherence tomography, electroretinography (ERG) optokenetic response and operant conditioning.

Dr. James Render of NAMSA provided an overview of the various factors that are involved in accurately detecting treatment-related findings, microscopically. Factors include an understanding of comparative ocular anatomy, spontaneous and iatrogenic ocular findings, microscopic artifacts and potential ocular toxicities by the study pathologist. An accurate diagnosis requires good communication among the pathologists, peer review pathologist, study directors, study veterinarian/veterinary ophthalmologist, in-life technicians, necropsy personnel and histotechnologists.

Dr. Vince Torti of Pfizer, Inc., gave an example how an ocular finding (i.e., degeneration of photoreceptors) was managed, including the use of ERG. Initial signs were associated with signs of clinical blindness that appeared reversible clinically, despite the presence of retinal degeneration.

Dr. Maria I. Rivera, Pharmacologist/Toxicologist, US FDA, CDER, spoke on the evaluation and regulatory considerations of clinical and nonclinical correlates of ocular toxicity. Her presentation was divided into three parts. In the first part she reviewed regulations pertaining to nonclinical ocular evaluation and then addressed the issue of clinical and nonclinical ocular correlations. The second part of her presentation involved examples of compounds that induce ocular findings in nonclinical studies, clinical studies or both. The third part of her presentation was a review of the factors to consider when detecting ocular findings in a toxicity study. These included the following: (1) knowledge of class effect, (2) benefit to risk ratio, (3) reversibility, (4) safety margin, (5) timing of the effect vs trial duration, (6) monitoring possibility, (7) medical indication, (8) species specificity and (9) mechanism of action.
Updates from Ocular Meetings

Notes from the 2011 ISOT Meeting

Submitted by JoAnn Schuh

The 12th International Society of Ocular Toxicology (ISOT) meeting was held Sept 29th – Oct 2, 2011 at Skamania Lodge in Stevenson, WA. For those not familiar with the ISOT, the meetings are generally held biannually with previous meetings held in the USA, Canada, Europe and the 2013 meeting is expected to be held in Japan. This multidisciplinary society is comprised of toxicologists, pharmacologists, medical and veterinary ophthalmologists and pathologists, and other basic scientists interested in ocular toxicology.

The 2011 meeting was attended by ~25 members and guest speakers, with 4 members of OTSS in attendance. Scientific sessions of particular interest to OTSS members included: An overview of ocular pathology seen in phototoxicity Studies by Julia Baker (Charles River Laboratories, PA), Excess oxygen in the human eye: relevance to the etiology of ocular disease by Shui YB (Washington University, MO), Drug-induced ocular side effects of clinical importance by Rick Fraunfelder (Casey Eye Institute, OR), Retinal toxicity of intravitreal KDR kinase inhibitors in a rabbit model by Robert Peiffer (Merck, PA), Use of herbal medicines and nutritional supplements in ocular disease: An evidence-based approach by Justin Wilkinson (Casey Eye Institute, OR), and Retinal atrophy in albino rats: related to the test article or to the higher light intensity by Wendy Roosen (Jannsen, Belgium). Other presentations included the neuroprotective effects of sirtuin, differences in mechanism of heat cataractogenesis by infrared and electric wave, cytotoxic effects of brilliant blue green on RPE after metal halide exposure, corneal mucous plaques, effect of breast cancer medications on vision, polypharmacy and dry eyes and the Casey Eye Institute camera for lens opacities.

This is a small meeting that provides an excellent opportunity to easily interact with others interested in ocular toxicology. Although there are overlapping scientific interests between the ISOT and OTSS, each organization has unique features and in the future there may be opportunities for collaborative educational sessions between the OTSS and ISOT. If you are interested in the ISOT their website is www.isot.org.

Toxchange

In addition to the advantages that general access to ToXchange provides, specialty section members can also opt in to the Ocular Toxicology ToXchange Discussion forum. This forum provides a great resource for sharing information, asking questions, etc.