President’s Message

Dear OTSS Members,

These are exciting times for the OTSS, driven by a resurgence in ophthalmic drug development and a highly engaged membership, our group has accomplished much in the last few months. Our program committee, currently chaired by Chris Somps of Pfizer, has been particularly successful over the past few years in developing cutting edge workshops and meetings focused on ocular toxicology. At the 2015 SOT annual meeting in San Diego, a workshop session, “Deciphering clinical and experimental retinal toxicity: An Eye on the Present and Future”, chaired by Ed Chow and Don Fox was well-attended and well-received. The workshop featured Brian Short (Brian Short Consulting) and Craig Crosson (Medical University of South Carolina), and others. In addition to providing a comprehensive background on retinotoxicology, the workshop also focused on a framework for predictive retinotoxicity of new drugs and environmental/industrial chemicals. At the upcoming 2016 annual meeting in New Orleans, Chris Somps and Don Fox (University of Houston) will co-chair a workshop, “Nanotoxicology and ocular drug delivery: one size does not fit all”. This workshop will feature presentations by Nigel Walker (NIEHS) and William Boyes (US EPA), among others, and is co-sponsored by the nanotoxicology and neurotoxicology specialty sections. We hope all OTSS members will attend. Also, don’t forget the OTSS annual reception, which will be held on Tuesday, March 15th from 6-7:30 in the Hilton New Orleans Riverside.

I am also excited to announce that the program committee has recently gained SOT approval for a stand-alone contemporary concepts in toxicology (CCT) meeting. This meeting, entitled “Ocular toxicology, pharmacology, and drug delivery: an eye on the future” will take place June 27-28, 2016 on the Genentech campus in South San Francisco, CA. This conference will provide a forum for communication and interactions between toxicologists, pathologists, clinicians, pharmacologists, basic scientists and other professionals working in the field of ocular toxicology. The main focus will be two-fold: to improve our understanding of ocular toxicology, pharmacology, and safety assessment, and to increase our understanding of the challenges associated with development of the next generation of ocular drugs and devices. The organizing committee has put together an exciting lineup of speakers from throughout academia and industry, and we believe this will be a fantastic learning opportunity for experienced ocular toxicologists as well as those that are new to the field. Be sure to mark your calendars!

In conclusion, this is an exciting time within the field of ocular toxicology. Our active membership continues to advance the OTSS mission of developing educational programs which emphasize new developments and issues in ocular toxicology. I look forward to more opportunities for education and collaboration in the future as our membership continues to grow.

Sincerely,
Evan A. Thackaberry, Ph.D., D.A.B.T.
Otss Reception Highlights

The reception for the Ocular Toxicology Specialty Section was held on Tuesday, March 3, 2015 from 6:00 pm to 7:30 pm at the San Diego Convention Center. It began by acknowledging the sponsors of the OTSS which included: Charles River, Covance, Ocular Services On Demand (OSOD), Regeneron, Novartis, Genentech, Veterinary Pathology Services and NAMSA. Next, Drs. Shoji Sasaki and Ikuyo Atsumi discussed the Japanese Society of Comparative and Veterinary Ophthalmology, which was followed by an introduction of the current officers of the OTSS. New officers for the 2015-2016 term were announced.

New officers include: Mercedes Salvador-Silva (Vice President-Elect), Brian C. Gilger (first year Councilor). Officers completing their terms on the OTSS Executive Committee included: Adele Miller (student representative), Diana Auyeung-Kim (councilor), Jim Render (past-President) and Edward Chow (President). After introductions, the treasurer and chairpersons of various OTSS committees presented updates.

Jon Popke indicated that the OTSS was doing well financially, with a balance of $29,005 as of December 31, 2014. Dr. Edward Chow acknowledged the members of the Program Planning Committee who included the following: Vlad Bantseev, Brian Christian, Alan Katz, Ron Newton, Jim Render, Melva Rios-Blanco, JoAnn Schuh and Chris Somps. In addition to the acceptance of the preliminary CCT Proposal: Ocular Toxicology, Pharmacology, and Drug Delivery: An Eye on the Future” by SOT, plans were being finalized for a symposium proposal submission on “Nanotoxicology and Ocular Drug Delivery” for the 2016 SOT meeting.

The chairperson of the Communications Committee Leandro Teixeira, introduced the members of the committee who included Ryan Hamilton, Chris Somps, Rose Verhoeven and James Render. Of the various committee activities, the principal activity is the OTSS Newsletter, which is always in need of information to share with the members of the OTSS.
Next was an update on the Membership Committee, chaired by Chris Somps, which was followed by awards. Members of the Membership Committee included Diana Auyeung-Kim, Russel Eyre and Adele Miller. At the time of the meeting, there were 91 members of the OTSS and 27 members from last year that have still not signed up. This number appears to be gradually increasing, but there is room for many more, especially for students and postdocs! There were two awards presented at the annual OTSS reception. They include the “Covance-OSOD Student/Postdoctorate Award” and the “Career Achievement Award”. A selection for the Informa “Ocular Paper of the Year” award was not done this year due to organizational changes in the journal. You can read about the award winners on the section below.

The awards committee was composed of Diana Auyeung-Kim (Chair), Margaret Collins, Christina de Zafra, Edward Kelly, Tim Lam. The reception was concluded by a presentation by Dr. Christopher Murphy, the winner of the “Career Achievement Award”, who shared lessons learned through his career about “University-Based Expertise Benefitting Ocular Drug Development”.

Drs. Shoji Sasaki presenting information about the Japanese Society of Comparative and Veterinary Ophthalmology

Manlong Xu receiving the 2015 Student/ Post-doctorate Award.
Career Achievement Award

Congratulations to this year’s recipient,
Dr. Christopher Murphy, D.V.M., Ph.D.

Dr. Murphy is a Board Certified Veterinary Ophthalmologist, Professor of Comparative Ophthalmology in the School of Veterinary Medicine, University of California-Davis and former Professor of Comparative Ophthalmology at the University of Wisconsin-Madison. Dr. Murphy has advanced training and expertise in corneal diseases and surgery, comparative physiological optics, comparative ocular anatomy, as well as ocular diseases of laboratory and exotic animal species. Dr. Murphy has received a number of awards including the lifetime achievement award for research from the American Veterinary Medical Association and the Pfizer award for research excellence. He also has over 150 peer-reviewed publications to his credit. He is a founding member and serves as CEO for the Ocular Services on Demand (OSOD) LLC, a distributed network of experts that support preclinical programs in ocular drug development and is the co-founder of Platypus Technologies LLC, a biotech startup based on the use of liquid crystals for reporting molecular interaction with nanostructured surfaces. Dr. Murphy’s nomination to this award was based on his extensive scientific contributions to the advancement of ocular toxicity assessment and to the field of Vision Science.

About the Award:

The award nominees are selected based on the depth and breadth of scientific contributions and significance of contributions for advancing the field of ocular toxicology. Among the factors included are the education/training/mentorship of young scientists, influence on regulatory and risk/safety assessment decisions related to ocular toxicology, and leadership and service to the ocular toxicology field.
Benzalkonium chloride (BAK) is extensively used in different disinfectant and preservative formulations. However, BAK residue is toxic to humans and the environment. This study investigated the detoxification of BAK by ultraviolet C (UVC) radiation. BAK solutions were irradiated with a germicidal UVC lamp at various doses. Human corneal epithelial cells (HCEC) were then exposed to the UVC-irradiated BAK solutions for 5 minutes. After exposure, the cultures were assessed for metabolic activity using PrestoBlue, for cell viability using confocal microscopy with viability dyes, and for tight junction proteins using immunofluorescence staining for zonula occludens 1 (ZO-1). UVC radiation reduced BAK toxicity on cell metabolic activity in a dose-dependent manner. The cultures treated with UVC-neutralized BAK showed similar cell metabolic activity and cell viability to those treated with phosphate buffered saline (PBS). The expression of ZO-1 was greatly disrupted by untreated BAK; in contrast, ZO-1 proteins were well maintained after exposure to UVC-neutralized BAK. This study demonstrates that the cell toxicity of BAK can be neutralized by UVC radiation. This finding provides a unique way of detoxifying BAK residues, and may be of great value in utilizing the antimicrobial efficacy of BAK while minimizing its potential hazards to human health and the environment.
Workshop at the 2015 SOT
“Deciphering Clinical and Experimental Retinal Toxicology: An Eye on the Present and Future”

Synopsis provided by Ed Chow

A workshop entitled, “Deciphering clinical and experimental retinal toxicology: an eye on the present and future”, and co-chaired by Edward Chow (Allergan) and Donald Fox (University of Houston), was sponsored by OTSS at the SOT conference on March 23. The excellent speakers for this workshop provided the latest understanding on retinotoxicology, including the various factors relevant for assessing the retinotoxicity of new drugs and industrial chemicals. Brian Short (Allergan) started the session by providing information on new imaging technologies and recent understanding of retinal structure and function that are helpful for assessing the toxicity of ocular drugs. Jim Chastain (Alcon) discussed ocular pharmacokinetics and focused particularly on the role of blood-retina barrier transporters in retinal toxicity. Donald Fox (University of Houston) presented information on toxicant-induced off-target retinotoxicity. Craig Crosson (Medical University of South Carolina) discussed in detail the retinal pigment epithelium’s changes in disease and drug-induced dysfunction. Lastly, the role and application of stem cells in retinal repair and regeneration were described by Dennis Clegg (University of California at Santa Barbara). Stem cell therapy is emerging to be a bright area for treatment of retina damage due to disease or other causes.

Call for Nominations from the Awards Committee

Ocular Toxicology SS Career Achievement Award

Each year, the OTSS recognizes one of its members for lifetime achievement or for contribution of a particularly influential body of work to the field of ocular toxicology. The 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.

Nominations of candidates not selected will be considered for two additional years unless the nomination is withdrawn by the sponsor.

Nominations: 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.

Submit nominations to: Brian Gilger

Deadline: December 31, 2015
**Ocular Toxicology SS Ocular Toxicology Specialty Section Covance-OSOD Graduate Student/Postdoctoral Fellow Research Award**

Each year, OTSS recognizes outstanding student/postdoctoral candidates for their contribution to advancing the understanding of ocular toxicology and pharmacology. The award recipient will receive a certificate and monetary award of up to $500, funded by generous contributions from Covance and OSOD. The requirements/criteria for the award include that the Applicant:

1) must be graduate student or postdoctoral fellow as of October 1 the year prior to the annual meeting;
2) preferred to be a SOT and OTSS member;
3) must have an accepted abstract at the next upcoming SOT annual meeting;
4) must attend the SOT meeting and attend the OTSS reception;
5) must not have received an OTSS award the previous year;
6) abstract must be related to ocular toxicology and/or pharmacology.

Submission of:
1) Abstract, including SOT Abstract Number.
2) Letter of support from applicant’s Sponsor indicating the role of the applicant and independence conducting the research.
3) Narrative describing their research hypothesis, background and significance (up to 2-pages). The winners will present a 5-minute synopsis of his/her research at the Annual OTSS meeting.

Submit nominations to: Brian Gilger

**Deadline: December 15, 2015**

**Ocular Toxicology SS Trainee Travel Award**

The Ocular Toxicology Specialty Section (OTSS) of the Society of Toxicology (SOT) is now accepting applications for a Graduate Student and Postdoctoral Fellow Trainee Travel Award. The purpose of these awards is to recognize outstanding contributions of graduate students and postdoctoral fellows to the 2016 SOT Annual Meeting in the area of ocular toxicology. The award is specifically intended to support the travel of graduate students and postdoctoral fellows to the Annual Meeting of the Society of Toxicology. Both need and abstract merit will be considered as criteria for this award.

Eligibility is limited to graduate students and postdoctoral fellows who meet the following criteria:

1) must be graduate student or postdoctoral fellow as of October 1 the year prior to the annual meeting;
2) must have an accepted abstract at the next upcoming SOT annual meeting;
3) must attend the SOT meeting and attend the OTSS reception;
4) must not have received the OTSS award the previous year;
5) abstract must be related to ocular toxicology and/or pharmacology.

The application should include the following items:
1. Cover letter from the trainee indicating his/her intent to apply for this award and interest in attending the Annual Meeting
2. Current CV
3. Copy of abstract for platform or poster presentation at the 2016 SOT
4. Letter from advisor or mentor indicating the trainee’s merit, as well as confirmation of need for funding to enable travel

Awards will be conferred to one (1) graduate student and/or one (1) postdoctoral fellow. The winners will each receive an achievement plaque and a $500 cash award. The awardees will be acknowledged at the 2016 OTSS Reception.

All applications should be submitted to OTSS Awards Committee Chairperson Brian Gilger.

**Deadline: December 15, 2015**
Ocular Toxicology SS Annual “Paper of the Year” Award

The Informa Healthcare Award is presented annually to recognize 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 selected by Informa Healthcare from articles published between January 1 and December 31 of the year preceding the SOT Annual Meeting. Nominations from the membership will not be solicited. The award will be announced at the Annual Meeting of the Ocular Toxicology Specialty Section at the Society of Toxicology Annual Meeting.
Deadline: December 31, 2015

Call for SOT Student and Postdoctoral Representatives

There is an opening for a 2-year position for a Student representative and a Postdoctoral representative for OTSS student members. Interested individuals should contact Mercedes Salvador-Silva

Mark your Calendar

Society of Toxicology
Ocular Toxicology Specialty Section (OTSS) Reception

WHAT: Ocular Toxicology Specialty Section (OTSS) Reception.
WHEN: Tuesday, March 15, 2016 - 6-7:30pm.
WHO: Open to all OTSS members as well as SOT members interested in Ocular Toxicology.
WHERE: Hilton New Orleans Riverside.

Contemporary Concepts in Toxicology Meeting
“Ocular toxicology, pharmacology, and drug delivery: An eye on the future”

WHO: Open to all OTSS members as well as SOT members interested in Ocular Toxicology.
WHERE: Genentech campus in South San Francisco, CA.
Renew your membership!

It is that time of the year when people are planning to register for the meeting and to renew their SOT membership so we wanted to remind you to re-register as an OTSS member. 

Click here for a direct link

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Sponsorship

We sincerely thank our sponsors for their generous support!!

2014 – 2015 Sponsors