

# *Dermal Toxicology*

## *Specialty Section*

Fall Newsletter 2017

### *President's Message*

by Zbigniew Wojcinski

Greetings to the DTSS Membership!

To begin with, I would like to thank all the DTSS Executive Council past and present for their work in keeping our Specialty Section alive and well. The DTSS leadership group is committed to the growth of our Specialty Section and are looking for ways to improve communications which as you know is critical to the operations of any organization. To that end, Jeff Klein (our President-Elect), has done a wonderful job working with SOT over the last year to significantly improve our DTSS website and make it more attractive and user friendly.

The growth of our Specialty Section is dependent upon active recruitment. DDTSS members are encouraged to engage students at both the graduate and undergraduate levels to foster interest in Dermal Toxicology. Please see the article in this newsletter by our Postdoctoral and Graduate Student Representatives for more information in this regard. Our DTSS Annual Business Meeting and Reception is an opportunity for members to re-acquaint with old friends and make new acquaintances. But it is also a great opportunity for students to learn more about our Specialty Section and meet with DTSS members. As such, please get the word out to the students and whenever possible, personally invite them to attend our reception.

In this edition of the DTSS newsletter you will also find our financial report, awards opportunities, and recent publications by our members. Thank you to all who contributed to this newsletter, in particular Michael Hughes (our Vice President-Elect). I would

also like to thank our Sponsors for their continued support of dermal toxicology.

On a final note, I will look forward to seeing you all at the 2018 SOT Annual Meeting in San Antonio and hope that you will be able to find the time to join us at the DTSS Annual Business Meeting and Reception.

### *DTSS Trainee Newsletter Section*

Hello student and postdoctoral members! We hope that 2017 has been a great year for you so far.

The 2017 Annual Meeting in Baltimore began with the Student/Postdoc Mixer on Sunday evening. The Dermal Toxicology Specialty Section (DTSS) displayed a poster at the mixer and representatives Laila Al-Eryani and Gabriella Composto interacted with many fellow trainees. The event provided a great forum for inquiry into the work and membership of our Specialty Section. Trainees also attended the DTSS reception, winning several awards and an iPad mini thanks to our great sponsors.

We look forward to the 2018 Annual Meeting in San Antonio. One of the major events for trainees at the Annual Meeting is the Graduate Student/Postdoc Mixer on Sunday night. This event is a great opportunity to network, learn about SOT groups and programs, and enjoy delicious food. Don't forget to request a free ticket when registering for the Annual Meeting! DTSS will display a poster at this event so please stop by and say hi. Additional trainee opportunities at the Annual Meeting include: 'Chat with an Expert' sessions, Poster Tours for Trainees, Trainee Discussions with Speakers, and the Tox ShowDown, a game show-style event.

Information for all these opportunities will be posted on the Annual Meeting website soon. Also, DTSS has several trainee-specific awards; submission information can be found at: <https://www.toxicology.org/awards/sot/awards.aspx?Filter=14>. Award deadlines are **January 15, 2018** so don't forget to apply!

It is our honor to serve as your representatives and we welcome any questions, comments, or suggestions regarding our service of DTSS.

Sincerely,

Carrie Mae Long, Postdoctoral Representative,  
[carrie.long@nih.gov](mailto:carrie.long@nih.gov)

Laila Al-Eryani, Graduate Student Representative,  
[laila.al-eryani@nih.gov](mailto:laila.al-eryani@nih.gov)

Gabriella Composto, Vice Graduate Student Representative, [gabrieco@pharmacy.rutgers.edu](mailto:gabrieco@pharmacy.rutgers.edu)

## 2017 DTSS Awards

### Postdoctoral Award by Stratacor

Puneet Vij, MB Research Laboratories, Spinnerstown, PA

*"The h-CLAT for Assessment of Dermal Sensitization Potency of the OECD Proficiency Chemicals and of Commercially Available Mixtures"*

### "Paper of the Year" Award

Gabriella Composto, Rutgers University, Piscataway, NJ

*"Mitigation of nitrogen mustard mediate skin injury by a novel indomethacin bifunctional prodrug"*

### Battelle Student Research Award

Laila Al-Eryani

*"miRNA Expression Changes in Arsenic-Induced Skin Cancer In Vitro and In Vivo"*

### Informa Healthcare Award

Jennifer Plahovinsak, Battelle, Columbus, OH

*"Selection of non-steroidal anti-inflammatory drug and treatment regimen for sulfur mustard-induced cutaneous lesions"*

### Student Travel Awards by Charles River

Rebecca Justiniano, University of Arizona, Tucson, AZ

*"The topical OTC antimicrobial zinc pyrithione suppresses solar UV-induced carcinogenesis via zinc-based metal and redox stress responses in SKH-1 mouse epidermis"*

Gabriella Composto, Rutgers University, Piscataway, NJ

*"Nitrogen Mustard Induces Nuclear Hypertrophy in Mouse Epidermis"*

Brian Palmer, University of Rochester, Rochester, NY

*"The effect of topically applied carbon nanomaterial on skin inflammation in a model of allergic contact dermatitis"*

Congratulations to all of the awardees.

**DTSS thanks the sponsors of our awards.**

**Battelle**  
*The Business of Innovation*



  
charles river

## 2018 DTSS Awards

Be recognized for your research efforts! DTSS offers a number of award to members, particularly students and postdoctoral fellows. For award information:

<https://www.toxicology.org/awards/sot/awards.aspx?Filter=14>.

Submit awards to David Aremu at [david.aremu@gapnc.com](mailto:david.aremu@gapnc.com) by January 15, 2018.

### DTSS 2016-2017 Financial Report

#### Income

Contributions	3,500
Registration	978
Interest	422
Total Income	7,630

#### Expense

Awards - Sections	3,850
Executive Meetings	248
Reception	5,075
Total Expense	9,173

Excess (Deficiency) of Revenue over Expenses (1,543)

Net Assets Beginning of year 10,404

Net Assets After Transfers 10,404

Net Assets End of Year 8,861

### SOT 2018

Congratulations to Marina Evans of the US EPA and Ronald Baynes of North Carolina State University for the selection of their Workshop proposal, sponsored by DTSS, by the Scientific Program Committee for presentation at the upcoming Annual Meeting. The title of the workshop is: *Computational Predictions for Dermal Penetration of Chemicals: Should More Complexity Be Considered in Addition to Simple*

*Passive Diffusion?* Make plans to attend to support our fellow members!

DTSS Business Meeting and Reception  
Wednesday, March 14, 2018  
6:00 pm  
Place to be determined.

#### Call for Candidates!

DTSS is looking for candidates for the upcoming election of our Section's Executive Council. We need candidates for Vice President-Elect, Secretary/Treasurer, Councilor, Postdoctoral Representative and Vice Graduate Student Representative. This is an opportunity to develop leadership skills, serve the interests of the Section, learn the workings of SOT and meet fellow scientists. Contact Zbigniew Wojcinski at [zwojcinski@ddpsllc.com](mailto:zwojcinski@ddpsllc.com) for more information.

### Session Proposals for SOT 2019

One way to enhance the visibility of our Specialty Section is to sponsor sessions at the Annual Meeting. Chairing (or co-chairing) a session at the Annual Meeting is also an excellent way to develop your own career. Session proposals for the 2019 Annual Meeting will be solicited soon after the 2018 meeting. Start making plans to work with your colleagues to submit session proposals. There are number of session types at the Annual Meeting. Contact Sarah Farahmand and Doug Learn for more information.

### DTSS Website News

Hopefully by now, everyone has had a chance to look at the new DTSS website and see the improved look. Many thanks to Raul Suarez and the SOT web group for designing our new site.

Now that the look is shiny and new, it's time to update the content. The DTSS needs input from as many people as possible to provide content, let us know what links would be helpful for you, and generally make the site a place that will be a useful resource to our members.

As the website liaison between the DTSS and the SOT, I would like to try and include as many ideas as people have so that the updated website is a reflection of all DTSS members.

Please take the time to think of new ideas and send them on to Jeff Klein at [klein@ep-technologies.com](mailto:klein@ep-technologies.com) to ensure that your voice is heard. I look forward to hearing your ideas so that the website will be as useful as it is nice to look at.

## ***Meetings of Interest***

American Academy of Dermatology

Feb 16-20, 2018, San Diego, CA

<https://www.aad.org/meetings/annual-meeting>

Perspectives in Percutaneous Penetration

April 3-6, 2018, La Grande Motte, France

<http://www.pppconference.org/ppp-2018.html>

International Society for Biophysics and Imaging of the Skin

May 4-6, 2018, San Diego, CA

<http://www.i-s-b-s.org/>

International Investigative Dermatology

May 16-19, 2018, Orlando, FL

<http://www.sidnet.org/page/annualmeeting>

## ***2017-2018 DTSS Executive Council***

President, Zbigniew Wojcinski

Vice President, Jeffrey Klein

Vice President-elect, Michael Hughes

Secretary/Treasurer, Neera Tewari-Singh

Past President, Douglas Learn

Senior Councilor, David Aremu

Junior Councilor, Sara Farahmand

Postdoctoral Fellow Representative, Carrie Mae Long

Graduate Student Representative, Laila Al-Eryani

Vice Graduate Student Representative, Gabriella

Composto

## ***Publications of DTSS Members***

Berthet A., Spring P., Vernez D., Plateel G., Hopf N.B. (2017) Ex vivo human skin permeation of methylchloroisothiazolinone (MCI) and methylisothiazolinone (MI). Arch Toxicol. DOI: 10.1007/s00204-017-1978-x

**Dalton**, C.H., Jenner, J., Chipman, J.K., Graham, J.S. and Chilcott, R.P. (2017) The percutaneous absorption of soman in a damaged skin porcine model and the evaluation of WoundStat™ as a topical decontaminant” Cutaneous and Ocular Toxicology DOI: 10.1080/15569527.2017.1365883.

Farage, M.A., Miller, K.W., **Maibach, H.I.** Editors. Textbook of Aging Skin, Volume I (of III), Second Edition. Springer-Verlag Berlin, 2017

Gerstel D, Jacques-Jamin C, **Schepky A**, Cubberley R, Eilstein J, Grégoire S, Hewitt N, Klaric M, Rothe H, Duplan H. 2017 Comparison of protocols for measuring cosmetic ingredient distribution in human and pig skin. Toxicol In Vitro. 2016 34:153-60.

Hall, C.A., Lydon, H.L., **Dalton**, C.H., Chipman, J.K., Graham, J.S and Chilcott, R.P. The percutaneous toxicokinetics of sulphur mustard in a damaged skin porcine model and the evaluation of WoundStat™ as a topical decontaminant. Journal of Applied Toxicology **37** (9): 1036-1045.

Halling-Overgaard, A.-S., Kezic, S., Jakasa, I., Engebretsen, K.A., Maibach, H., and Thyssen J.P. 2017. Skin absorption through atopic dermatitis skin: a systematic review. British Journal of Dermatology, Vol 177, Issue 1, July 2017, pp 84-106

Jacques-Jamin C, Duplan H, Rothe H, Vaillant O, Eilstein J, Grégoire S, Cubberley R, Lange D, Ellison C, Klaric M, Hewitt N, **Schepky A**. 2017. Comparison of the Skin Penetration of 3 Metabolically Stable Chemicals Using Fresh and Frozen Human Skin. Skin Pharmacol Physiol. 30(5):234-245.

Jung, E.C., Zhu, H., Elmahdy, A., Cao, Y., Hui, X. and Maibach, H.I. (2016). Effect of ultrasound

and heat on percutaneous absorption of L-ascorbic acid: human *in vitro* studies on Franz cell and Petri dish systems. *International Journal of Cosmetic Science* 38, 646-650

Lydon, H.L., Hall, C.A., **Dalton**, C.H., Chipman, J.K., Graham, J.S and Chilcott, R.P. "The percutaneous toxicokinetics of VX in a damaged skin porcine model and the evaluation of WoundStat™ as a topical decontaminant". *Journal of Applied Toxicology* DOI: 10.1002/jat.3542 (2017)

Lydon, H.L., Hall, C.A., **Dalton**, C.H., Chipman, J.K., Graham, J.S and Chilcott, R.P. (2017) Development of haemostatic decontaminants for treatment of wounds contaminated with chemical warfare agents. 3: Evaluation of *in vitro* topical decontamination efficacy using damaged skin". *Journal of Applied Toxicology* 37 (8): 976-984

Marshall NB, Lukomska E, Nayak AP, **Long CM**, Hettick JM, and Anderson SE. (2017) Topical application of the anti-microbial chemical triclosan induces immunomodulatory responses through the S100A8-A9-TLR4 pathway. *J Immunot.* DOI: 10.1080/1547691X.2016.1258094

Miyani, V.A. and **Hughes, M.F.** (2017) Assessment of the *in vitro* dermal irritation potential of cerium, silver and titanium nanoparticles in a human skin equivalent model. *Cutaneous and Ocular Toxicology* 36:145-151.

Rothe H, Obringer C, Manwaring J, Avci C, Wargniez W, Eilstein J, Hewitt N, Cubberley R, Duplan H, Lange D, Jacques-Jamin C, Klaric M, **Schepky A**, Grégoire S. 2017 Comparison of protocols measuring diffusion and partition coefficients in the stratum corneum. *J Appl Toxicol.* 37(7):806-816

Zhang, A., Jung, E.-C., Zhu, H., Zou, Y., Hui, X. and **Maibach, H.** (2017) Vehicle effects on human stratum corneum absorption and skin penetration. *Toxicology and Industrial Health*, 33(5) 416-425

See you in San Antonio!

