

Immunotoxicology Specialty Section Newsletter

Fall/Winter 2016 edition

2016-2017

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President's Message

Greetings, ITSS members and Happy Holidays!

It is hard to believe but the SOT Annual Meeting is only a few months away. I hope that your Holidays are going well. As we close out 2016, don't forget that we have several deadlines and opportunities within the coming weeks.

First off, we have deadlines for both awards and program fast approaching. Awards are always a large part of our annual meeting and will highlight successes of our members. Please be sure to nominate your colleagues for recognition for their accomplishments. The details for all awards, requirements for nominees, and submission, associated deadlines, and primary contacts are provided on the ITSS website, so please visit (<http://www.toxicology.org/groups/ss/imtox/deadlines.asp>).

Next, it is never too early to be considering the program for the next SOT Annual Meeting. While the SOT Program for 2017 in Baltimore is finalized, the deadline for submission of the 2018 SOT program is in May 2017, only a few short weeks after the SOT Annual Meeting. Please contact Jamie DeWitt, ITSS VP Elect and 2018 Program Chair (DEWITTJ@ecu.edu), with your innovative, novel, and timely session ideas. ITSS members have been amazing contributors to the overall SOT program and we hope to continue that tradition. We look forward to discussing your ideas for sessions that will be both scientifically impactful and important for the ITSS membership as well as broadly interesting to the general SOT membership. We would especially like to see continuing education submissions from our ITSS members!

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 Continued

Next, we would like to thank our international colleagues for continuing our partnerships. We are hoping to revitalize the International Committee in ITSS to better enhance partnerships across even more countries. I would like to personally thank the Japanese Society of Immunotoxicology as well as our EU partners who have worked with ITSS for many years. We also hope that we can collaborate with other groups in the future to further increase international scientific exchange and collaboration in immunotoxicology. The continued goal of the International Committee is to better address mutual needs and enhance collaborations.

As I mentioned in the last newsletter, we have a training opportunity for ITSS members in the Spring of 2017. We would like to thank ILSI/HESI Immunotoxicology Technical Committee for the continued support for Immunotoxicology training. The ILSI/HESI ITC is taking the reins on organizing an outside Immunotoxicology session annually. The inaugural meeting is tentatively planned for April 18 and 19 in Gaithersburg, MD. ILSI/HESI ITC will have more information about that opportunity in the near future.

Lastly, don't forget that we have elections for several ITSS Officer positions that will be on the ballot for the 2017-2018 term. Please watch your email for ballot information from SOT and be sure to participate and vote for your favorite candidate.

As always, please let us know if you have feedback – we would love to hear your ideas for ensuring we remain a robust and energized specialty section. I look forward to seeing you in Baltimore!



L. Peyton Myers, Ph.D.
President, ITSS (2016-2017)

Student & Postdoc Report

As the end of the year approaches, I hope that you all have a great holiday and are excited for the 56th SOT Annual Meeting in Baltimore, Maryland. There are many opportunities for students and postdocs to get involved, including Chat with an Expert, Poster Tours, the Student/Postdoctoral Scholar Mixer, ITSS Networking Event and the Tox Showdown.

At the 56th SOT Annual Meeting, the ITSS will host the Networking/Mentor event for students and postdocs to have discussion with a panel of professionals with various areas of expertise on (more details to be announced soon). The event from last year was a great success. Students and postdocs valued the interaction they had with the mentors. Therefore, be on the lookout for more information for the Networking/mentor event.

The deadline for award nominations is quickly approaching. Awards available to students and postdoctoral ITSS members include:

- Best Presentation by a Student
- Best Presentation by a Postdoctoral Trainee
- Best Paper of the Year

Many travel awards are also available through the specialty section and through SOT; please check out the website for more details.

Lastly, we would like to remind everyone to make sure their SOT member information is current and correct so you do not miss email reminders for the numerous events and activities available to students and postdocs. If you would like to get involved in event planning, or any of the ITSS committees, please contact Jiajun (Brian) Zhou (zhoujiaj@msu.edu) or Angela Groves (Angela_Groves@URMC.Rochester.edu).

Jiajun (Brian) Zhou
Angela Groves, Ph.D.

Award Nominations

Did you read an outstanding immunotoxicology paper this year? Read a presentation abstract that was amazing? Work with someone who you think embodies excellence in the field of immunotoxicology? If you answered yes to any of these questions, then I urge you to nominate the author, the presenter, or the colleague for an award from the Immunotoxicology Specialty Section (ITSS). Recognizing these important contributions of ITSS students, postdoctoral scientists, and colleagues is one of the most important undertakings of our specialty section. Additionally, acknowledging the excellence of the scientists within ITSS helps to demonstrate how our science furthers the mission of SOT.

Please make it difficult for the Awards Committee to choose recipients for these awards! Nominate a student, postdoctoral scientist, or colleague for one of the Immunotoxicology Specialty Section Awards. You also may nominate yourself! Descriptions of awards, Awards Committee contacts, and due dates are listed below. For a more detailed description of the awards and their nomination criteria, please visit the Immunotoxicology Specialty Section web site:

<http://www.toxicology.org/groups/ss/imtox/deadlines.asp>

Haley Neff-LaFord, Awards Committee Chair

Vos Lifetime Career Achievement Award in Immunotoxicology

This award was named for the late Professor Jeff Vos and will be presented to a senior investigator whose body of work represents an outstanding career in immunotoxicology. Please submit nominations to Peyton Myers (Laine.Myers@fda.hhs.gov) by January 15, 2017.

Outstanding Senior Immunotoxicologist Award

This award will be presented to a senior investigator with more than 10 years of experience since obtaining the highest degree and whose work has made significant contributions to the field of immunotoxicology. Please submit nominations to Victor Johnson (vjohnson@brt-labs.com) by January 15, 2017.

Outstanding Young Immunotoxicologist Award

This award will be presented to a young investigator with 10 years of less of experience since obtaining the highest degree and whose work has made significant contributions to the field of immunotoxicology. Please submit nominations to Victor Johnson (vjohnson@brt-labs.com) by January 15, 2017.

Best Paper of the Year Award

Authors of the paper deemed to be the best paper in immunotoxicology will receive this award. The paper must have been published between January 1 and December 31 of the previous calendar year and the first publication date (paper or e-version) will be considered the publication date. Immunotoxicology papers published in any peer-reviewed journal are acceptable. Please submit nominations to Haley Neff-LaFord (hnlaFord@seagen.com) by January 15, 2017.

Best Presentation by a Postdoctoral Trainee Award

Postdoctoral trainees who are presenting (poster or platform) at the 2017 SOT Annual Meeting are eligible for this award. Nominees are asked to submit a written version of an immunotoxicology presentation to be made at the Annual Meeting and a letter of nomination from the trainee's advisor. Please submit materials to Haley Neff-LaFord (hnlaFord@seagen.com) by January 15, 2017.

Best Presentation by a Student Award

Students who are presenting (poster or platform) at the 2017 SOT Annual Meeting are eligible for this award. Nominees are asked to submit a written version of an immunotoxicology presentation to be made at the Annual Meeting and a letter of nomination from the student's advisor. Please submit materials to Haley Neff-LaFord (hnlaFord@seagen.com) by January 15, 2017.

HESI Immunotoxicology Young Investigator Travel Award

ILSI HESI sponsors this award to assist young investigators (<5 years since completing a graduate dissertation) in attending SOT and presenting their research. Both U.S. and international investigators are encouraged to apply. Please submit nominations to Peyton Myers (Laine.Myers@fda.hhs.gov) by January 15, 2017.

JSIT Contribution Article

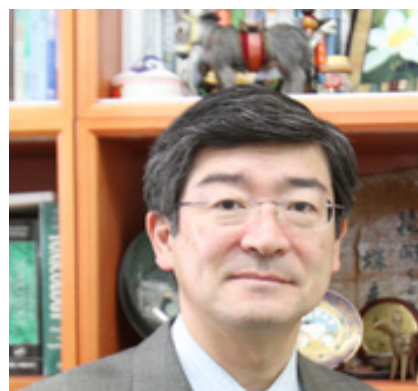
Introduction of the Japanese Society of Immunotoxicology and collaboration with SOT Immunotoxicology Specialty Section

I attended the 1991 annual meeting of the International Society for Immunopharmacology at Tampa, Florida. It was a chance to meet key individuals for a collaboration between JSIT (Japanese Society of Immunotoxicology) and SOT-IMTox-SS (Immunotoxicology Specialty Section). At the time I was thinking of studying abroad within NIEHS (National Institute of Environmental Health Science, NIH) and visited Dr. Michael I. Luster's laboratory to observe the institute and see the Research Triangle Park before attending the conference. At Tampa, I met Dr. Jack H. Dean (as well as Dr. Albert E. Munson and Dr. Joseph G. Vos, although my memory is a bit hazy) from SOT, while Dr. Motoyasu Ohsawa, Dr. Yasuhide Kouchi and I represented JSIT. We talked about a future collaboration between both groups in Japan and the USA. I worked at Dr. Luster's laboratory in NIEHS from 1992 to 1993. The period of Dr. Fujio Kayama's work in the laboratory overlapped mine, and Dr. Kouchi had worked before me. Dr. Sei-ichiro Hirano was working at Dr. Maryjane K. Selgrade's laboratory when I visited the Research Triangle Park in 1991. We had the opportunity to attend the SOT Annual Meeting while in the USA. We also attended the IMTox-SS meeting and extended our friendship with scientists from all around the world who were working in the same field of immunotoxicology.

I returned to Japan in June of 1993 and continued my research on the immunotoxicology of environmental toxicants such as metals. My main target is arsenic and this research continues to the present day. I presented my research findings at Japanese scientific conferences that included the "Society of Toxicological Science", "Society of Hygiene," and "Society of Occupational Health and Preventive Medicine." However, since the number of researchers in the field of immunotoxicology in Japan is small, discussion at these sessions was not very active. It was within this background that

Japanese scientists interested in immunotoxicology started to prepare an immunotoxicology study group with the initiative of Dr. Ohsawa. The study group for immunotoxicology was then established in June of 1994 with Dr. Yukio Kuroiwa as President. Dr. Kayama and I then attended the SOT Annual Meeting in Baltimore, Maryland in March of 1995, and Dr. Kayama introduced the foundation of JSIT at the IMTox-SS meeting. The 2nd annual meeting was held on September 29, 1995 in Tokyo. Dr. Luster was invited as a foreign speaker and lectured on "Immunotoxicological evaluation of chemicals and therapeutics: an update perspective." The 12th annual meeting during September 20–21, 2005 provided the opportunity to strengthen the collaborative exchange between JSIT and SOT IMTox-SS, and Dr. Mitchell D. Cohen lectured on "Research trends of Immunotoxicology in the USA." The 1st volume of the "JSIT Newsletter" was issued in 1996 as the official newsletter of JSIT, which was then issued semi-yearly. From the 12th volume issued in 2008, the English pages were edited partially in the "JSIT Newsletter" in response to the maturation of the collaboration between JSIT and SOT IMTox-SS. In this issue, Dr. Kenneth L. Hastings contributed his participation report for the 14th annual meeting of JSIT. SOT 2010 in Salt Lake City was the first annual meeting co-chaired by IMTox-SS and JSIT.

As indicated above, I introduce the origins



**President of JIST: Takahiko Yoshida M.D.,
Ph.D., Asahikawa Medical University**

JSIT Contribution Article

of JSIT and the collaboration between JSIT and IMTox-SS on the occasion of the start of periodical contribution to the IMTox-SS Newsletter from JSIT. JSIT is composed of nearly 300 scientists working in academia, industry, and government agencies, and holds an annual meeting around autumn. I am working as the 5th president of JSIT whose tasks include acceding and prospering the history of the organization. Although JSIT is a relatively small group, we exchange knowledge and have active discussions at a particular venue. Lastly, I hope our collaboration will develop into a long and mutually rewarding relationship.

Program Committee Update

Fellow Immunotoxicologists; the 2017 Annual Meeting in Baltimore is fast approaching. The ITSS Program Committee has been working hard since the 2016 SOT meeting to bring you an exciting and informative program for the 2017 meeting. The table below provides the date/time for the sessions that ITSS is proud to be sponsoring for the 2017 meeting. In addition, there are several additional sessions (including poster sessions) pertaining to immunotoxicology included for your reference. Mark your calendars and see you soon in Baltimore!

Session Type	Session Title (Chairs)	DATE	Time
Sessions sponsored by the ITSS Program Committee			
Symposium	Lifespan Neuroimmunotoxicology: Age-Dependent Neuroimmune Dyshomeostasis Caused by Pollutants, Pathogens and Psychoactive Substances (Chairs: Nick Filipov, University of Georgia; Vic Johnson, Burleson Research Technologies)	March 13, 2017	2:00pm - 4:45pm
Workshop	Bispecific Molecules: Nonclinical and Clinical Development Challenges (Chairs: Pedro Del Valle, US FDA; Patricia Ryan, MedImmune, LLC)	March 13, 2017	2:00pm - 4:45pm
Symposium	Chemically Induced Neuroinflammation and "Sickness Behavior" Disorders (Chairs: G. Jean Harry, NIEHS/NIH; James O'Callaghan, CDC-NIOSH)	March 14, 2017	2:00pm - 4:45pm
Symposium	Emerging Concepts in Nonclinical Development of Immuno-Oncology Agents: Enabling Translation of Nonclinical Pharmacology and Safety Information to First-in-Human Clinical Trials (Chairs: Vijayapal Reddy, Eli Lilly and Company; Jacqueline Kinyamu-Akunda, Novartis Institute for Biomedical Research)	March 14, 2017	2:00pm - 4:45pm
Symposium	Enhancing the Clinical Benefit of Cancer Drugs: Toxicity As a Therapeutic Target (Chairs: Cyril Pettit, HESI; Brian Berridge, GlaxoSmithKline)	March 15, 2017	2:00pm - 4:45pm
Symposium	The Skin As A Metabolic And Immune-Competent Organ: Implications for Pharmaceutical Development and Safety Assessment (Chairs: Yoshiro Saito, MHLW Japan; Jeanine Bussiere, Amgen, Inc.)	March 15, 2017	9:30am - 12:15pm
Workshop	Biological Advances to Help Navigate the Nonclinical Safety Assessment Strategy in Cancer Immunotherapy: Utility, Limitations, and Future Direction (Chairs: Robert Li, Genentech; Jacintha Shenton, Janssen)	March 16, 2017	8:30am - 11:15pm

Program Committee Update

Additional Session relevant to Immunotoxicology			
Platform	Ozone and Inflammation	March 13, 2017	9:30am - 12:15pm
Daily Plenary Session: Precision Medicine	Pharmacogenomics of Drug Toxicity in Cancer: Making the Case for Precision Medicine Lecturer: Jun J. Yang, St. Judes Children's Research Hospital	March 14, 2017	8:00am – 9:20am
Poster	Imunotoxicology	March 14, 2017	9:30am - 12:15pm
Poster	Autoimmunity / Hypersensitivity	March 15, 2017	1:15pm – 4:30pm
Poster	Inflammation and Disease	March 15, 2017	1:15pm – 4:30pm
Poster	Inflammation: Methods and Mechanisms	March 15, 2017	1:15pm – 4:30pm
Mini-Symposium	Immune Factors in Drug-Induced Liver Injury (Chairs: Robert A. Roth, Michigan State University and Tsuyoshi Yokoi, Nagoya University Graduate School of Medicine) <i>Joint Mini-Symposium between Society of Toxicology and Japanese Society of Toxicology</i>	March 15, 2017	5:00pm – 6:20pm

As our President advised, it is certainly not too early to think about sessions that you might want to submit for the 2018 SOT Annual Meeting. The deadline for submission of 2018 session proposals to SOT is in May of 2017, only a few short weeks after the SOT Annual Meeting. In general, proposals that are endorsed by one or more specialty sections have a higher probability of being chosen by the Scientific Program Committee (not always, but it does help immensely). To facilitate endorsements, the ITSS Program Committee needs your session proposals almost immediately after the 2017 Annual Meeting. We will send out requests and reminders, but please, to streamline the process and increase the probability of your session proposal being selected, send your sessions for endorsement by the ITSS Program Committee deadline. Please contact Jamie DeWitt, ITSS VP Elect and 2018 Program Committee Chair (dewittj@ecu.edu), with your session ideas! Sessions include continuing education courses, roundtables, symposia, and workshops.

Member Spotlight



Paige Lawrence, Ph.D. is an ITSS member and a professor at the University of Rochester, holding appointments in the Departments of Environmental Medicine and Microbiology & Immunology. Recruited from Washington State University, Paige has been a faculty member at the University of Rochester for 10 years, serving as the Director of the Toxicology Training Program and the Deputy Director of Environmental Health Sciences Center. She enjoys mentoring, and two of her former PhD students are current ITSS Executive Committee members (Drs. Kristen Mitchell and Haley Neff-LaFord).

Throughout her career, immunotoxicology has been a consistent component of Paige's research, for which a major focus is to determine how immune system development and function are altered by environmental exposures. Currently she is working on an exciting project that blends together the fields of immunotoxicology and developmental toxicology, by investigating how early exposures affect the immune system not only later in life, but also across multiple generations. Her interest in this developed in part from her belief that immune system needs more coverage in developmental toxicology studies. The aryl hydrocarbon receptor (AHR) in particular receives considerable attention in Paige's research, as it plays a critical role in regulating the nature of immune responses, and binds a variety of chemicals.

Paige recently put together an international conference on AHR research, which is a huge undertaking and a major achievement, to say the least. Her interest in organizing the meeting precipitated from her experiences attending large conferences, where although there has been a lot of growth in the field in the last 10 years, the AHR research within these meetings was often very spread out. "What motivated me to do it was a desire to bring the field together". A success by many accounts, the meeting was held from August 3-6 in Rochester, NY. It was well attended, with people traveling from across the USA, and from 17 other countries spanning 6 continents. Her decision to hold the meeting in Rochester was not only for practical "home base" reasons, but it was also fitting because several keystone discoveries about AHR were made at the University of Rochester. When asked what was the most fun aspect of organizing an international meeting, her response was that, as far as the planning component goes, she really enjoyed strategizing about the science in the sessions. However, she indicated that the very best part was the meeting itself. The positive energy and interpersonal interactions during event provided a reward that she thought was the most gratifying aspect. She hopes that this meeting will become sustainable, and has already handed off the reins for the next meeting, slated for Paris in 2018.

AHR Conference 2016



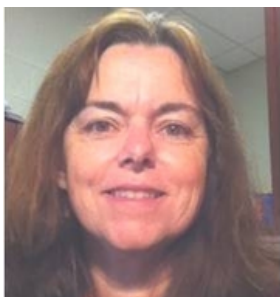
Job Opportunities

- A Postdoctoral Scholar position is available immediately in the laboratory of David Lawrence at The Wadsworth Center of New York State Department of Health (Albany, NY) to study the role of auto-antibodies and glia involvement of neuroinflammation affecting behavior. The NIH funded study is designed to examine immune complexes and phagocytosis in the alteration of neuronal connectivity. Antibody specificities and isotypes as well as FcRs are of interest regarding the numbers and distribution of glia and the expression of cytokines, chemokines, neuropeptides and neurotransmitters. The laboratory is interested in several aspects of membrane biology and signal transduction in leukocyte biology. The perinatal influences of environmental stressors, including physical/psychological stress is an important consideration.
- The Lawrence Lab is a well-equipped facility with instrumentation for PCR, Fluorescence, Phosphofluorescence, and Chemiluminescence Imaging, Flow cytometry, Luminex analysis, ELISA, ELISPOT and GCSPR/GCSPCE. In addition, The Center has support cores for biomedical research projects (see <http://www.wadsworth.org/research/cores>). We are seeking a Ph.D. graduate with training and a demonstrated publication record in immunology and/or neuroscience (preferably Neuroimmunology), tissue culture and fluorescence microscopy. Applicants should have experience with basic molecular biology techniques including protein, RNA, and DNA preparations, immunoassays, Western blotting, RT-PCR, and PCR. Opportunities for professional growth include microassay technology. Applicants must have a PhD degree or equivalent and a record of publication. English proficiency is required. Salary scaled according to experience. Your application should include a letter describing your research experience and interests, future career aspirations, your CV, and contact information for three references. Email the requested information to david.lawrence@health.ny.gov.

Exciting News



Lorraine Twerdok, Ph.D., a semi-retired ITSS member, was elected to a Councilor position for her local chapter of SOT, the National Capital Area Chapter (NCAC). She will serve for a three year term. Although Dr. Twerdok had served in several NCAC Board positions in the 1990's, including chapter President. She encourages other semi- or fully retired members of SOT who want to stay involved in their lifelong profession to consider donating their time to their Local Chapter, Specialty Section(s), or Special Interest Group(s) if experienced scientist volunteers are needed.



Valerie H Adams, Ph.D., a biologist for the US Army Public Health Center, Health Effects Division; Toxicology, recently passed the DABT.

Recent Immunotoxicology Publications

Compiled by **Angela Groves**. Anytime you have a new fully-published or electronically-available article to report, please send the citation to Angela at angela_groves@urmc.rochester.edu.

Asthma, Allergy, Autoimmunity & Hypersensitivity

Canbaz, D., Lebre, M.C., Logiantara, A., van Ree, R. and van Rijt, L.S., 2016. Indoor pollutant hexabromocyclododecane enhances house dust mite-induced activation of human monocyte-derived dendritic cells. *Journal of Immunotoxicology*, pp.1-7.

Coenraads, P.J., Vogel, T.A., Blömeke, B., Goebel, C., Roggeband, R. and Schuttelaar, M.L.A., 2016. The role of the antioxidant ascorbic acid in the elicitation of contact allergic reactions to p-phenylenediamine. *Contact dermatitis*, 74(5), pp. 267-72.

Hennen, J. and Blömeke, B., 2016. Keratinocytes improve prediction of sensitization potential and potency of chemicals with THP-1 cells. *ALTEX*.

Kock, M., Coenraads, P.J., Blömeke, B. and Goebel, C., 2016. Continuous usage of a hair dye product containing 2-methoxymethyl-para-phenylenediamine by hair-dye-allergic individuals. *British Journal of Dermatology*, 174(5), pp.1042-1050.

Kuiper, J., Moran, M. and Cetkovic-Cvrlje, M., 2016. Exposure to polychlorinated biphenyl-153 decreases incidence of autoimmune Type 1 diabetes in non-obese diabetic mice. *Journal of Immunotoxicology*, pp.1-11.

Nishino, R., Fukuyama, T., Watanabe, Y., Kurosawa, Y., Koasaka, T. and Harada, T., 2016. Detection of respiratory allergies caused by environmental chemical allergen via measures of hyper-activation and degranulation of mast cells in lungs of NC/Nga mice. *Journal of Immunotoxicology*, 13(5), pp.676-685.

O'Brien, E., Spiess, P.C., Habibovic, A., Hristova, M., Bauer, R.A., Randall, M.J., Poynter, M.E. and van der Vliet, A., 2016. Inhalation of the reactive aldehyde acrolein promotes antigen sensitization to ovalbumin and enhances neutrophilic inflammation. *Journal of immunotoxicology*, 13(2), pp.191-197.

Pot, L.M., Coenraads, P.J., Blömeke, B., Puppels, G.J. and Caspers, P.J., 2016. Real-time detection of p-phenylenediamine penetration into human skin by in vivo Raman spectroscopy. *Contact dermatitis*, 74(3), pp.152-158.

Zahir, A., Kindred, C., Blömeke, B., Goebel, C. and Gaspari, A.A., 2016. Tolerance to a Hair Dye Product Containing 2-Methoxymethyl-P-Phenylenediamine in an Ethnically Diverse Population of P-Phenylenediamine-Allergic Individuals. *Dermatitis*, 27(6), pp.355-361.

Developmental Immunotoxicology

Ashley-Martin, J., Lavigne, E., Arbuckle, T.E., Johnson, M., Hystad, P., Crouse, D.L., Marshall, J.S. and Dodds, L., 2016. Air Pollution During Pregnancy and Cord Blood Immune System Biomarkers. *Journal of Occupational and Environmental Medicine*, 58(10), pp.979-986.

Recent Immunotoxicology Publications

Pang, Y., Dai, X., Roller, A., Carter, K., Paul, I., Bhatt, A.J., Lin, R.C. and Fan, L.W., 2016. Early Post-natal Lipopolysaccharide Exposure Leads to Enhanced Neurogenesis and Impaired Communicative Functions in Rats. *PLoS one*, 11(10), p.e0164403.

Poulet, F.M., Wolf, J.J., Herzyk, D.J. and DeGeorge, J.J., 2016. An Evaluation of the Impact of PD-1 Pathway Blockade on Reproductive Safety of Therapeutic PD-1 Inhibitors. *Birth Defects Research Part B: Developmental and Reproductive Toxicology*, 107(2), pp.108-119.

Shivanna, B., Maity, S., Zhang, S., Patel, A., Jiang, W., Wang, L., Welty, S.E., Belmont, J., Coarfa, C. and Moorthy, B., 2016. Gene Expression Profiling Identifies Cell Proliferation and Inflammation as the Predominant Pathways Regulated by Aryl Hydrocarbon Receptor in Primary Human Fetal Lung Cells Exposed to Hyperoxia. *Toxicological Sciences*, 152(1), pp.155-68.

General Immunotoxicology

Yucesoy B, Talzhanov Y, Michael Barmada M, Johnson VJ, Kashon ML, Baron E, Wilson NW, Frye B, Wang W, Fluharty K, Gharib R, Meade J, Germolec D, Luster MI, Nedorost S (2016). Association of MHC region SNPs with irritant susceptibility in healthcare workers. *Journal of Immunotoxicology*, 13:738-744.

Alam, A., Puri, N. and Saxena, R.K., 2016. Uptake of poly-dispersed single-walled carbon nanotubes and decline of functions in mouse NK cells undergoing activation. *Journal of Immunotoxicology*, 13(5), pp.758-765.

Dhital, S., Stokes, J.V., Park, N., Seo, K.S. and Kaplan, B.L., 2016. Cannabidiol (CBD) induces functional Tregs in response to low-level T cell activation. *Cellular Immunology*.

Dornbos, P., Crawford, R.B., Kaminski, N.E., Hession, S.L. and LaPres, J.J., 2016. The Influence of Human Interindividual Variability on the Low-Dose Region of Dose-Response Curve Induced by 2, 3, 7, 8-Tetrachlorodibenzo-p-Dioxin in Primary B Cells. *Toxicological Sciences*, 153(2), pp.352-60.

Feng, Y., Tian, J., Xie, H.Q., She, J., Xu, S.L., Xu, T., Tian, W., Fu, H., Li, S., Tao, W. and Wang, L., 2016. Effects of Acute Low-Dose Exposure to the Chlorinated Flame Retardant Dechlorane 602 and Th1 and Th2 Immune Responses in Adult Male Mice. *Environmental Health Perspectives*, 124(9), pp.1406-13.

Hossain, M.M., Liu, J. and Richardson, J.R., 2016. Pyrethroid insecticides directly activate microglia through interaction with voltage-gated sodium channels. *Toxicological Sciences*, p.kfw187.

Jin, Y., Wu, Y., Zeng, Z., Jin, C., Wu, S., Wang, Y. and Fu, Z., 2016. Exposure to oral antibiotics induces gut microbiota dysbiosis associated with lipid metabolism dysfunction and low-grade inflammation in mice. *Toxicological Sciences*, 154(1), pp.140-152.

Kado, S., Chang, W.W., Chi, A.N., Wolny, M., Shepherd, D.M. and Vogel, C.F., 2016. Aryl hydrocarbon receptor signaling modifies Toll-like receptor-regulated responses in human dendritic cells. *Archives of Toxicology*, pp.1-13.

Recent Immunotoxicology Publications

Kielsen, K., Shamim, Z., Ryder, L.P., Nielsen, F., Grandjean, P., Budtz-Jørgensen, E. and Heilmann, C., 2016. Antibody response to booster vaccination with tetanus and diphtheria in adults exposed to perfluorinated alkylates. *Journal of immunotoxicology*, 13(2), pp.270-273.

Lichter, J., Bock, U., Lotz, C., Groeber, F. and Blömeke, B., 2016. Functional expression of N-acetyltransferase 1 (NAT1) in differentiated human skin keratinocytes. *British Journal of Dermatology*.

Maiuri, A.R., Breier, A.B., Turkus, J.D., Ganey, P.E. and Roth, R.A., 2016. Calcium Contributes to the Cytotoxic Interaction Between Diclofenac and Cytokines. *Toxicological Sciences*, 149(2), pp.372-384.

Mangum, L.H., Crow, J.A., Stokes, J.V., Howell, G.E., Ross, M.K., Pruett, S.B. and Chambers, J.E., 2016. Exposure to p,p'-DDE Alters Macrophage Reactivity and Increases Macrophage Numbers in Adipose Stromal Vascular Fraction. *Toxicological Sciences*, 150(1), pp.169-77.

Regenass-Lechner, F., Staack, R.F., Mary, J.L., Richter, W.F., Winter, M., Jordan, G., Justies, N., Langenkamp, A., Garrido, R., Albassam, M. and Singer, T., 2016. Immunogenicity, Inflammation, and Lipid Accumulation in Cynomolgus Monkeys Infused with a Lipidated Tetranectin-ApoA-I Fusion Protein. *Toxicological Sciences*, 150(2), pp. 378-89.

Rosas, L.E., Elgamal, O.A., Mo, X., Phelps, M.A., Schmittgen, T.D. and Papenfuss, T.L., 2016. In vitro immunotoxicity assessment of culture-derived extracellular vesicles in human monocytes. *Journal of Immunotoxicology*, pp.1-14.

Taheri, M., Mehrzad, J., Afshari, R., Saleh-Moghaddam, M. and Mahmudy Gharai, M.H., 2016. Inorganic arsenic can be potent granulotoxin in mammalian neutrophils in vitro. *Journal of Immunotoxicology*, 13(5), pp.686-693.

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Recent Immunotoxicology Publications

Methods/Models

Jackman, J.A., Mészáros, T., Fülöp, T., Urbanics, R., Szebeni, J. and Cho, N.J., 2016. Comparison of complement activation-related pseudoallergy in miniature and domestic pigs: foundation of a validatable immune toxicity model. *Nanomedicine: Nanotechnology, Biology and Medicine*, 12(4), pp.933-943.

Sato, K., Yuta, K. and Kusaka, Y., 2017. Skin Sensitization Model Based on Only Animal Data by Qualitative Structure-Toxicity Relationships (QSTR) Approach. In *Allergy and Immunotoxicology in Occupational Health* (pp. 93-101). Springer Singapore.

Reviews/Books/Commentaries

Boule, L.A. and Lawrence, B.P., 2016. Influence of Early-Life Environmental Exposures on Immune Function Across the Life Span. In *Environmental Influences on the Immune System* (pp. 21-54). Springer Vienna.

DeWitt JC, Germolec DR, Luebke RW, and Johnson VJ. (2016). Associating Changes in the Immune System with Clinical Diseases for Interpretation in Risk Assessment. In: *Current Protocols in Toxicology* (67:18.1.1-18.1.22).

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Shvedova, A., Pietrojusti, A. and Kagan, V., 2016. Nanotoxicology ten years later: Lights and shadows. *Toxicology and applied pharmacology*, 299, pp.1-2.

Announcement



Late Breaking Abstracts: January 12, 2017
Early Bird Registration: January 13, 2017
Standard Registration: February 10, 2017
Final Registration: After February 10, 2017

Immunotoxicology Specialty Section Committee Lists – 2016/2017

Awards Committee:

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*These were Program Committee members during 2016. We are accepting new members for 2017.

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If you would like to join a committee, there are still openings on the Communications & Membership and Education Committees.

Please contact the ITSS Secretary/Treasurer or the Chairperson of the committee(s) if you are interested in joining.