# **IMMUNOTOXICOLOGY**

# Specialty Section Summer Edition



2017-2018
Executive Committee

President Victor J. Johnson

Vice President Jamie DeWitt

Vice President-Elect Emanuela Corsini

Secretary/Treasurer
Stacey Anderson

Past President L. Peyton Myers

Senior Councilor Rodney Prell

Junior Councilor Jessica Lynch

Postdoc Representative Angela Groves

Student Representative Jiajun (Brian) Zhou

The Immunotoxicology Specialty
Section (ITSS) Newsletter is
published three times a year
(Summer, Fall, and Winter). If you
would like to share an item of interest
with members of the ITSS, please
send it to the Communications
Committee Chair. All comments and
suggestions are welcome.

Jiajun (Brian) Zhou zhoujiaj@msu.edu

Angela Groves
Angela\_Groves@URMC.
Rochester.edu

Jessica Lynch jlynch18@ITS.JNJ.com

#### **Incoming President's Message**

Greetings fellow Immunotoxicologists! It is hard to believe that 2017 is in full swing, another exciting and stimulating SOT meeting is under our belts, and, at the time of writing this note, the 2017 Stanley Cup Playoffs just finished, Congrats Penguins (had to put that out there for the ITSS hockey fans!). It seems not long ago that I joined SOT and ITSS as a student member; actually it was 1998 so technically it was a while ago. It is with great honor and dedication that I will serve the ITSS membership as incoming President for the 2017-2018 term. For those members that are less familiar with me, my career in Immunotoxicology began under the mentorship of Drs. Barry Blakely and Chatur Sisodia at the University of Saskatchewan (MSc) and Dr. Raghubir Sharma at the University of Georgia (PhD). Following my PhD, I was blessed to work under the mentorship of one of Immunotoxicology's founding fathers, Dr. Michael Luster, at NIOSH/CDC. I was later recruited by Burleson Research Technologies (BRT) where I have been working with Drs. Gary and Florence Burleson for nearly 6 years investigating immunotoxicity safety and risk assessment. Since 2014, I have been serving as the Principal Investigator for Immunotoxicology for the National Toxicology Program (NTP) providing leadership for the NTP Contract awarded to BRT and have the pleasure of working with the leadership of Dr. Dori Germolec, NTP Group Leader for Systems Toxicology. OK, enough about me already! Sincere thanks go out the last year's ITSS Executive Committee and the leadership provided by Dr. Peyton Myers, outgoing ITSS President. You were a great group to work with, the past year was fun. Peyton, you are not getting away that easy, we still have monthly teleconferences and check out goal 4 below.

#### What's inside?

President's Message	1
Outgoing President's Message	
Student Post-doctoral Committee Report	
2017 ITSS Award Winners	
Member Spotlight: Peyton Myers	10
2017 ITSS Committee Lists	12
Job Opportunity	13
Program	14
Recent Immunotoxicology Publications	

### President's Message, continued:

I would also like to welcome the new members to the Executive Committee, Dr. Emanuela Corsini (Vice President-Elect), University of Milan, and Dr. Jessica Lynch (Junior Councilor), Janssen Research &,

#### IMMUNOTOXICOLOGY SPECIALTY SECTION



Development and Dr. Stacey Anderson (Secretary/Treasurer), NIOSH/CDC. The ITSS Executive Committee also sends thanks to the subcommittees and their volunteers, including Education, Membership, Awards, and Program. Thanks for all the hard work! The 2017-2018 year will be busy for the ITSS Executive Committee. We want to build off the successes from last year and continue to improve the caliber of the specialty section and its impact and visibility within toxicology. I would like to take an opportunity to highlight a few goals for ITSS for the coming year.

Goal 1: Identify and/or create educational opportunities for ITSS membership. Education opportunities have an important impact on the strength of the discipline of immunotoxicology and of the ITSS. This includes training opportunities for graduate students and postdocs as well as continuing education. The old adage, "It is never too late to teach an old dog a new trick," is certainly applicable. We need to continue to strive for new knowledge in order to make novel advances in the field. The ITSS Executive Committee and the Education Sub-committee strives identifying, and/or creating/co-organize training opportunities that will improve the knowledge-base for membership as well as provide visibility and understanding of our field of toxicology. This past year, ITSS co-sponsored a workshop with ILSI/HESI entitled "T-cell Biology and Application to Immunopharmacology and Immunotoxicology Course" held at MedImmune in Gaithersburg, MD on April 18-19, 2017. This course was a resounding success with much positive feedback from attendees, expert lecturers, and organizers. The ITSS Executive Committee will look to continue similar efforts and collaborations in the coming year. Additional mechanisms for learning include webinars developed by ITSS membership and hosted by ITSS as well as webinars and courses/meeting hosted by other profession societies in related disciplines. We will work hard to identify educational opportunities and translate them to the membership. A shout to all ITSS members, if you find a course or webinar or other training tool, please bring this to the attention of the ITSS Executive Committee [email to Jamie DeWitt (DEWITTJ@ecu.edu), Education Chair or Vic Johnson (vjohnson@brt-labs.com) so that we can help spread the word.

Goal 2: Foster International Scientific Exchange and Collaboration. The ITSS has a long-standing relationship with the Japanese Society of Immunotoxicology (JSIT). This partnership was established in 2005 to provide a vehicle for exchange of science and education on an international level. This program has been extremely successful and had lead to cutting-edge scientific presentations given by ITSS members at the JSIT meeting and reciprocal presentation of cutting-edge science by JSIT members at the SOT meeting. We are proud to continue this relationship and to expand the communication between ITSS and JSIT. Reciprocal publications in respective newsletters is now an ongoing strategy to share ideas and accomplishments throughout the year. Building on the success of the ITSS-JSIT collaboration, the ITSS Executive Committee is expanding outreach to additional nations. At the present time, discussions are ongoing with immunotoxicology experts in European and Asian nations with the vision of establishing feasible mechanisms for international coloration and sharing of science.

### President's Message, continued:

Goal 3: Solidification of Endowment Fund. I will speak for the entire ITSS membership in thanking Drs. Prakesh and Mitzi Nagarkatti for their gracious donation that established a new ITSS Endowment Fund, now known as the "Mitzi and Prakash Nagarkatti Research Excellence in Immunotoxicology Award Fund". This fund is designed to encourage and recognize graduate students and postdoctoral scholars for their excellence in research involving mechanisms of immunomodulation in health and disease. The fund will provide travel awards for graduate students and postdoctoral scholars to attend the SOT meeting providing them the opportunity to present their research, gain valuable feedback from peers, learn cutting-edge science, and build a network. In order to make this endowment fund permanent and receive matching funds from SOT, ITSS needs to raise \$15,000 to bring the fund to \$25,000, at which point, SOT will provide an additional \$25,000 and make the fund permanent. Please reach out to the ITSS Executive Committee if you are interested in contributing this valuable fund. SOT has made it easy for members to contribute to the endowment. Please follow this link (https://www.aimhq.com/netforumsot/eweb/DynamicPage.aspx?WebCode=AddDonation&Action=Add&Site=SO T) and scroll to find the "Mitzi and Prakash Nagarkatti Research Excellence in Immunotoxicology Award Fund'. Any and all contributions are welcome and greatly appreciated.

Goal 4: Tap into the resource that is The ITSS Past Presidents. The leadership of the ITSS have a wealth and breadth of knowledge and expertise that should not go untapped. These individuals were gracious in volunteering to lead ITSS at some point in their career and the current ITSS Executive Committee (as well as the committees of recent years) challenge the Past Presidents to stay involved and allow us to continue to benefit from their expertise and wisdom. As such, the Science Advisory subcommittee will be formalized under ITSS and will be tasked with reaching out to the Past Presidents and engaging them in scientific discussions that will benefit the membership. One excellent opportunity that comes to mind is a discussion about future hot topics and creating seeds for program proposals. This will help foster the science that ITSS wants to represent at future meeting. Past Presidents, be ready, keep an open mind, and let's see where this can take us in our pursuit of everything that is Immunotoxicology.

On behalf of the 2017-2018 ITSS Executive Committee, we look forward to working for the membership for the coming year. We welcome and encourage any and all interactions with ITSS members with the goal of making the specialty section inviting, productive, and visible.



Dr. Vic Johnson President, ITSS 2017 - 2018



### **Outgoing President's Message:**

Time really does fly. It seems like it was only yesterday that I was writing the incoming President's message and started the task of planning the ITSS Program for 2017. Here it is a year later and I don't know where the time went!

It has been a great honor to serve as the President of the Immunotoxicology Specialty Section during the 2016-2017 term. I have enjoyed working with the members in ITSS over my many years in ITSS. I especially appreciate the dedicated work of the Executive Committee. Running a Specialty Section is only possible with the hard work and effort of the Executive Committee. I have sincerely enjoyed working with such dedicated people.

I hope that the efforts we expanded in the last couple of years will continue to be a success. We had a productive meeting in Baltimore and I know that the current Executive Committee is working diligently to make San Antonio a success. The international collaborations with JSIT and Europe are strong and will continue to grow under Vic, Jamie, and Emanuela. Furthermore, our collaboration with ILSI/HESI (which coalesced into the T-cell workshop) appears to be continuing with a repeat of the course in Europe before returning to the US the following year. Lastly, we were honored to have seed money donated to help establish a second Endowment Fund for ITSS. We have three years to collect the remaining minimum moneys to establish the fund as permanent within SOT. I have no doubt that the community will step up with donations and the fund will be established. The ITSS community always amazes me with its commitment to its members.

It was a great honor to serve as the President of ITSS from 2016-2017. I am sure that ITSS is in great hands and I look forward to a great success in 2018 and years to come.

Dr. Laine Peyton Myers Past-President, ITSS 2016 - 2017





### Student & Postdoctoral Report:

Dear graduate students and postdocs,

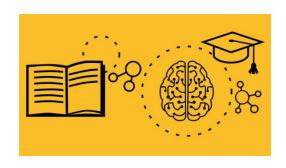
I hope you are having a fun and productive summer so far.

I would like to thank everyone who participated in the Graduate Student/Postdoc Mixer and the 3rd Annual Networking Event hosted by the Immunotoxicology Specialty Section at the 56th Annual SOT Meeting in Baltimore, Maryland. We had a great turnout at the Graduate Student/Postdoc Mixer and our poster was well attended. We also had about 25 people participate in the Networking Event. At the Networking Event the participants had the opportunity to interact with diverse panelists from academia, industry and government. The participants were able to connect with these experts to learn about what it is like to hold their positions and ask advice on career planning. We were happy to have received much positive feedback from the participants. Additionally, about half of the participants were non-ITSS members, indicating that the event was well advertised and students and postdocs were looking for more career development events within SOT. The feedback we received has been very helpful, and it will help us to make adjustments for next year's event.

We also encourage the ITSS graduate student and postdoc members to become involved with us by participating in the ITSS committees. This is a great way to connect with other ITSS members and to enhance your professional network. There are 4 different committees within ITSS: Awards, Program, Education and Communication/Membership, each chaired by friendly and motivated members of the ITSS executive committee. Participating in these activities can be rewarding and it is also great opportunity to get to know the immunotoxicological community. If you would like to get more involved please contact us at <a href="mailto:Angela\_Groves@URMC.Rochester.edu">Angela\_Groves@URMC.Rochester.edu</a> or <a href="mailto:zhoujiaj@msu.edu">zhoujiaj@msu.edu</a>.

We look forward to working with you!

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





### 2017 ITSS Award Winners:

#### **Vos Award for Lifetime Career Achievement in Immunotoxicology**

The Vos Award for Lifetime Career Achievement in Immunotoxicology is presented to an individual in recognition of career achievements in advancing the field of immunotoxicology through service, leadership, and scientific contributions.



# Dr. Dori Germolec National Toxicology Program National Institute of Environmental Health Sciences

Immunology Discipline Leader Group Leader, Systems Toxicology

#### Nominated by:

Dr. Bob Luebke

Dr. Jamie DeWitt

Dr. Kristen Ryan

#### **Outstanding Senior Investigator Award**

The *Outstanding Senior Investigator Award* is presented to an individual whose work has made significant contributions to the field of Immunotoxicology. This award is for scientists in academia, industry, or those who have had an impact on regulatory issues, and has distinguished themselves as leaders in their chosen area of immunotoxicology.

#### Dr. Steve Pruett Mississippi State University

Professor

Department of Basic Sciences

College of Veterinary Medicine

Nominated by: Dr. Deborah Keil



### 2017 ITSS Award Winners:

#### **Outstanding Young Investigator Award**

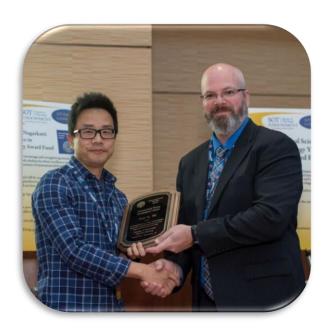
The *Outstanding Young Investigator Award* is presented to an individual whose work has made significant contributions to the field of Immunotoxicology. This award is for scientists in academia, industry, or those who have had an impact on regulatory issues, having 10 years or less of experience since obtaining their highest degree.

#### Dr. Robert Li Genentech

Pharmacology Sub-team Leader
Safety Assessment and Development Sciences

Nominated by:

Dr. Hong Wang and Dr. Rodney Prell



# Health and Environmental Sciences Institute (HESI) Immunotoxicology Young Investigator Travel Award



# Dr. Anthony Franchini University of Rochester

Identification of novel gene targets of the aryl hydrocarbon receptor in dendritic cells in the context of viral infection.

A.M. Franchini, J.R. Myers, G.B. Jin and B.P. Lawrence

Nominated by: Dr. B. Paige Lawrence

### **2017 ITSS Award Winners:**

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



### Silica-Triggered Autoimmunity in Lupus-Prone Mice Blocked by Docosahexaenoic Acid Consumption

PLOS One: 0160622 published ahead of print August 11, 2016

Melissa Bates, Christina Brandenberger, Ingeborg I. Langohr, Kazuyoshi Kumagai, Adam L. Lock, Jack R. Harkema, Andrij Holian and James J. Pestka

#### Best Presentation by a Postdoctoral Trainee Award

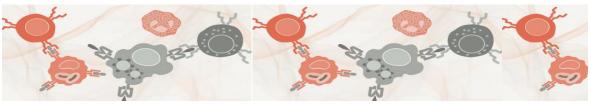
# Dr. Anthony Franchini University of Rochester

Identification of novel gene targets of the aryl hydrocarbon receptor in dendritic cells in the context of viral infection.

A.M. Franchini, J.R. Myers, G.B. Jin and B.P. Lawrence

Nominated by: Dr. B. Paige Lawrence





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

**First Place** 

#### Jessica Meyers University of Rochester

Aryl hydrocarbon receptor activation during development reduces dendritic cell function later in life

Nominated by: Dr. B. Paige Lawrence



**Second Place** 

# Alastair Mak University of Toronto

Distinguishing the potential of chemically similar drugs to cause IDILI in an impaired immune tolerance model.

Nominated by: Dr. Jack Uetrecht



#### **Third Place**

# Joseph Henriquez Michigan State University

Delta-9-tetrahydrocannabinol (THC) suppresses interferon- $\alpha$  (IFN $\alpha$ ) mediated activation of healthy and HIV infected T cells.

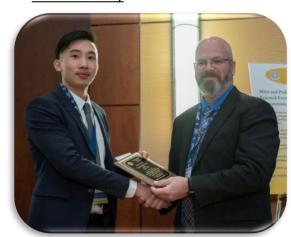
Nominated by: Dr. Norbert Kaminski



#### Jiajun (Brian) Zhou Michigan State University

Suppression of IgM response by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) involves impairment of immunoglobulin secretion by human primary B cells.

Nominated by: Dr. Norbert Kaminski



### Member Spotlight: Dr. Peyton Myers

**Dr. Laine Peyton Myers** is a toxicologist at the US Food and Drug Administration and has just finished his tenure as ITSS President for the 2016-2017 term.

#### When did you begin your career in immunotoxicology?

I began my career in imunotoxicology in the summer of 1997 in Steve Pruett's lab at LSU in Shreveport, LA. Steve (also a former ITSS President) was my undergraduate advisor and had taught my immunology course at Mississippi State University. Steve offered me a position in his new lab at LSU to work with his group looking at the immunotoxicity of alcohol in a binge drinking model as well as the immunotoxicity of various herbicides and pesticides. It was an amazing time for research and collaboration. It was in Steve's lab that I attended both my first regional SOT meeting as well as my first SOT meeting as a student in Philadelphia, PA in 2000. My first SOT meeting was very daunting! There were so many people asking questions and so many presentations. It is a very different feeling nowadays going to SOT and reminiscing with old friends.

#### When did you start participating in the ITSS?

I was encouraged by Steve to get involved in SOT in order to establish a network. When the student position became open (maybe 2001?), I applied to the graduate student position. Susan McKarns was rolling off as the student representative and I took up the mantle. It was so interesting to see how the executive committee worked and who the senior leaders in the field were.

#### What was you most rewarding experience involving ITSS?

I think the most rewarding experience was the opportunity to represent ITSS in Japan at the JSIT annual meeting in 2013. The cultural exchange between ITSS and JSIT is a wonderful opportunity to present data, exchange ideas, and experience another culture. I will always be grateful to Mitch and Kazu for making the exchange happen.

#### What was your experience as the President for ITSS?

Being President was an incredible experience. First, it was rather humbling to be in the position that had been occupied by so many of my mentors in the field. I had big shoes to fill and I hope I served the community well. Second, I greatly enjoyed working with the Executive Committee. The folks on the Executive Committee are dedicated to making ITSS a better place. It is so great to get to work with such dedicated folks.





### Member Spotlight, continued:

#### What motivated you to be a part of ITSS?

After my stint as student rep, I continued as postdoc rep, and then I was hooked. ITSS is a family. If you have ever heard of the "six degrees of separation", well I used to say ITSS is basically 2 degrees of separation. Many of the pioneers in immunotoxicology started back in the Medical College of Virginia and thus most of us who trained under the pioneers are like family. A big, crazy family, but a family nonetheless.

#### Is that anything you would like to change in ITSS?

The only thing I'd like to do would be to add more social time with each other at the annual meeting. As SOT has grown in size, it has grown more compressed with meetings on top of meetings. I do miss having time to socialize with colleagues and catch up with everyone. Maybe since Vic has taken over as President, I'll have more time!

You mentioned that you were once the postdoc representative for the ITSS. What was the most challenging aspect of transitioning out of a student role and into leadership?

An early challenge in the transition from student to leadership initially was seeing the colleagues (who had until that point been mentors or superiors) as colleagues. That is a transition that all scientists have to undergo. It is still hard calling some of my original mentors by their first name (instead of Dr. "X"). Other than that minor awkwardness, the bureaucracy of running a committee or learning new leadership concepts was likely the biggest challenge. Scientists are trained to think of concepts, analyze data, and postulate theories. Graduate school is not designed to equip the future science community with many leadership tools. Luckily many employers offer leadership training that can benefit young scientists. If your postdoc or first job offers leadership training, I'd suggest that you take advantage of the opportunity to learn new skills.

### What has been the largest benefit, for you, of being an active participant in an SOT SS like the ITSS?

The largest benefit was that I got to meet great people in ITSS. Along those lines, I cannot thank a small cadre of colleagues in ITSS (you know who you are) that helped my career when I needed advice and opportunities. My career path to-date is directly associated with the unique and helpful people I met in ITSS. The connections I made in ITSS have helped both with my career as well as personally.

### Do you have any advice for someone who is considering becoming more involved in an SS or SIG?

Volunteer! Try to get elected to a position, but even if you don't get elected, get involved. There are always positions on committees that need help. Also, if you volunteer, make sure to complete whatever assignment you have on the committee. Your next employer may be on the committee, and if they see you failing to complete an assignment, it may affect your job prospects. On the other hand, if they see you complete your tasks with gusto, then it may open up a future career path!

Dr. Laine Peyton Myers Past President, ITSS 2016 - 2017

### **2017 ITSS Committee List:**

#### **Program Committee**

Chair: Jamie DeWitt

Emanuela Corsini Sarah Blossom

Mark Collinge

M. Firoze Khan

Robert Li

Joanna Matheson

Michelle Miller

Gautham Rao

**Berran Yucesoy** 

#### New!

**Scientific Advisory Committee** 

Chair: Peyton Myers

Victor Johnson Jamie DeWitt Emanuela Corsini



#### **Volunteers Needed for Limited Number of Seats:**

Please contact the committee chairs if you are interested.

#### **Education Committee**

Chair: Emanuela Corsini emanuela.corsini@unimi.it

#### **Awards Committee**

Chair: Rodney Prell prell.rodney@gene.com

# **Communication and Membership Committee**

Chair: Jessica Lynch jlynch18@ITS.JNJ.com



#### Note:

SOT membership is required.

Must be willing to become a member of the ITSS and to commit to service.

### **Job Opportunity:**

Postdoc Position with CDC/NIOSH, Morgantown, WV

#### **OPEN POSITION:**

The National Institute for Occupational Safety and Health (NIOSH) is pleased to announce an opening for an Associate Service Fellow in the Allergy and Clinical Immunology Branch (ACIB) within the Health Effects Laboratory Division (HELD), located in Morgantown, WV. ACIB is a research-oriented branch studying the immunological effects of occupational exposures. The selected candidate's research will focus the identification of novel mediators of chemical induced allergic disease, including the microbiome. This position is a three-year, postdoctoral fellowship, with the potential for renewal based upon performance and available NIOSH funding.

#### **RESPONSIBILITES:**

The successful candidate will work under the direction of Stacey Anderson, PhD and conduct research that addresses the immunotoxicological effects of occupational chemicals using in vitro and in vivo models in addition to clinical samples. The selected candidate will be expected to write reports, proposals, train students, work efficiently with other lab members and collaborators, present findings at local and international meetings, and publish research findings in peer reviewed journals.

#### **QUALIFICATIONS:**

The following qualifications are required for this position:

- A background in cell biology, toxicology and/or immunology.
- Experience with tissue culture, immunological assays, and flow cytometry is expected
- Excellent scientific writing ability, strong oral communication skills, and the ability to work effectively and collegially.
- The applicant must be able to function in a team environment and work independently and collaborate with team members and external researchers
- The following qualifications are considered highly desirable for this position:
- A Ph.D. or equivalent degree (M.D., ScD., D.V.M., etc.) in immunology, toxicology or another related discipline from an accredited university.
- Experience in animal studies, next generation sequencing, and bioinformatics would be beneficial, but not necessary
- A strong publication record.
- Proficient ability with Microsoft Office, Word, Excel and PowerPoint is desirable

Candidates at an early or advanced stage of postdoctoral training are encouraged to apply. Salary is dependent upon academic degree and experience (salary range starting at \$60,210). Health and retirement benefits are included.









### Job Opportunity, continued:

#### **FACILITIES:**

The NIOSH research campus in Morgantown is adjacent to West Virginia University; metropolitan areas in Pittsburgh and Washington DC are within a one and three hour drive, respectively.

http://www.cdc.gov/niosh/contact/im-held.html

NIOSH is an Affirmative Action/Equal Opportunity Employer.

#### APPLICATION:

Please send a cover letter, your curriculum vitae, a brief statement of your research interests, and contact information of three references via e-mail to:

Stacey Anderson, PhD
Team Leader/Research Biologist
NIOSH/HELD/ACIB
1095 Willowdale Road, MS L4020
Morgantown, WV 26505
Sanderson4@cdc.gov

### **Program:**

Is the study of the immunotoxic effects of exogenous agents a thing of the past? It appeared so to the 2017-2018 ITSS Program Committee. After last year's nearly record-setting number of proposal submissions for the 2017 SOT Annual Meeting, this year's program committee was surprised that we received only FIVE proposals for pre-review and only THREE proposals for formal endorsement. What happened ITSS members? Were you so overwhelmed with the amazing programs from the 2017 Annual Meeting that you thought endorsement would be

similar to getting published in a top tier journal...a long-shot? It's not a long-shot and the number of submissions sends a message of the importance of our Specialty Section discipline to the leaders of SOT! Please make the 2019 Annual Meeting heavy on immunotoxicology and consider submitting a program proposal for that meeting. You have a year to plan! Otherwise, we will highlight presentations by ITSS members in the newsletter that we send out immediately prior to the Annual Meeting so that you can support your ITSS colleagues.

Jamie DeWitt Vice President, 2017-2018



Compiled by Angela Groves and Jiajun (Brian) Zhou. Anytime you have a new fully-published or electronically available article to report, please send the citation to Angela at <a href="mailto:angela\_groves@urmc.rochester.edu">angela\_groves@urmc.rochester.edu</a>.

#### Asthma, Allergy, Autoimmunity & Hypersensitivity

Di Gioacchino, M., Di Giampaolo, L., D'Ambrosio, V., Martino, F., Cortese, S., Gatta, A., Della Valle, L., Farinelli, A., Mangifesta, R., Cipollone, F. and Niu, Q., 2017. Allergens in Occupational Allergy: Prevention and Management–Focus on Asthma. In Allergy and Immunotoxicology in Occupational Health (pp. 47-62).

Dobashi, K., 2017. Traditional and Emerging Occupational Asthma in Japan. In Allergy and Immunotoxicology in Occupational Health (pp. 83-91).

Filon, F.L., 2017. Skin Exposure to Nanoparticles and Possible Sensitization Risk. In Allergy and Immunotoxicology in Occupational Health (pp. 143-152).

Murgia, N., Folletti, I., Paolocci, G., dell'Omo, M. and Muzi, G., 2017. Non-industrial Indoor Environments and Work-Related Asthma. In Allergy and Immunotoxicology in Occupational Health (pp. 103-114).

Niu, Q. and Zhang, Q., 2017. Combined Effect on Immune and Nervous System of Aluminum Nanoparticles. In Allergy and Immunotoxicology in Occupational Health (pp. 115-128).

Petrarca, C., Di Giampaolo, L., Pedata, P., Cortese, S. and Di Gioacchino, M., 2017. Engineered Nanomaterials and Occupational Allergy. In Allergy and Immunotoxicology in Occupational Health (pp. 27-46).

#### **Developmental Immunotoxicolgy**

Gilbert, K.M., Bai, S., Barnette, D. and Blossom, S.J., 2017. Exposure Cessation During Adulthood Did Not Prevent Immunotoxicity Caused by Developmental Exposure to Low-Level Trichloroethylene in Drinking Water. Toxicological Sciences, 157(2), pp.429-37.

Ohta, R., Ohmukai, H., Negura, T., Tazura, Y. and Shindo, T., 2017. Normal ovarian aging, but modified T-cell differentiation, in female mice following neonatal exposure to bisphenol A. Fundamental Toxicological Sciences, 4(1), pp.15-21.

#### **General Immunotoxicology**

Ahmed, T., Goel, V. and Banerjee, B.D., 2017. Propoxur-induced oxidative DNA damage in human peripheral blood mononuclear cells: protective effects of curcumin and  $\alpha$ -tocopherol. Drug and Chemical Toxicology, pp.1-7.

Baker, A.H., Wu, T.H., Bolt, A.M., Gerstenfeld, L.C., Mann, K.K. and Schlezinger, J.J., 2017. Tributyltin Alters the Bone Marrow Microenvironment and Suppresses B Cell Development. Toxicological Sciences.

#### **General Immunotoxicology, cont.**

Baker, A.H., Wu, T.H., Bolt, A.M., Gerstenfeld, L.C., Mann, K.K. and Schlezinger, J.J., 2017. Tributyltin Alters the Bone Marrow Microenvironment and Suppresses B Cell Development. Toxicological Sciences.

Bastan, R., Eskandari, N., J. Ardakani, H. and T. Peachell, P., 2017. Effects of fostriecin on β2-adrenoceptor-driven responses in human mast cells. Journal of immunotoxicology, 14(1), pp.60-65.

Johnson, V.J., Auerbach, S.S., Luster, M.I., Waidyanatha, S., Masten, S.A., Wolfe, M.S., Burleson, F.G., Burleson, G.R., Germolec, D.R., 2017. Evaluation of 4-methylcyclohexanemethanol (MCHM) in a combined irritancy and Local Lymph Node Assay (LLNA) in mice. Food and Chemical Toxicology, 105:99-105.

Kountouras, J., Polyzos, S.A., Katsinelos, P., Tzivras, D., Boziki, M., Gavalas, E., Zavos, C., Vardaka, E., Romiopoulos, I., Anastasiadis, S. and Tsiaousi, E., 2017. Helicobacter pylori on portal hypertension-related hepatic encephalopathy. Immunopharmacology and Immunotoxicology, 39(2), pp.105-106.

Lee, S., Hayashi, H., Matsuzaki, H., Kumagai-Takei, N., Maeda, M., Yoshitome, K., Yamamoto, S., Hatayama, T., Nishimura, Y. and Otsuki, T., 2017. Silica-Induced Immunotoxicity: Chronic and Aberrant Activation of Immune Cells. In Allergy and Immunotoxicology in Occupational Health (pp. 15-26).

Li, Y., Lu, H., Gu, Y., Ning, Z., Cao, T., Chen, C., Hu, C. and Tao, M., 2017. Enhancement of NK cells proliferation and function by Shikonin. Immunopharmacology and Immunotoxicology, 39(3), pp.124-130.

Mak, A., Johnston, A. and Uetrecht, J., 2017. Effects of immunization and checkpoint inhibition on amodiaquine-induced liver injury. Journal of Immunotoxicology, 14(1), pp.89-94.

Mohammadalipour, A., Karimi, J., Khodadadi, I., Solgi, G., Hashemnia, M., Sheikh, N. and Bahabadi, M., 2017. Dasatinib prevent hepatic fibrosis induced by carbon tetrachloride (CCl4) via anti-inflammatory and antioxidant mechanism. Immunopharmacology and immunotoxicology, 39(1), pp.19-27.

Nishimura, Y., Kumagai-Takei, N., Maeda, M., Matsuzaki, H., Lee, S., Yamamoto, S., Hatayama, T., Yoshitome, K. and Otsuki, T., 2017. Suppressive Effects of Asbestos Exposure on the Human Immune Surveillance System. In Allergy and Immunotoxicology in Occupational Health (pp. 1-14).

Pedata, P., Corvino, A.R., Lamberti, M., Petrarca, C., Di Giampaolo, L., Sannolo, N. and Di Gioacchino, M., 2017. Non Pulmonary Effects of Isocyanates. In Allergy and Immunotoxicology in Occupational Health (pp. 129-141).

#### General Immunotoxicology, cont.

Rushing, B.R., Hu, Q., Franklin, J.N., McMahen, R.L., Dagnino, S., Higgins, C.P., Strynar, M.J. and DeWitt, J.C., 2017. Evaluation of the Immunomodulatory Effects of 2, 3, 3, 3-Tetrafluoro-2-(Heptafluoropropoxy)-Propanoate in C57BL/6 Mice. Toxicological Sciences, 156(1), pp.179-189

Soria, E.A., Pérez, R.D., Queralt, I., Pérez, C.A. and Bongiovanni, G.A., 2017. Immunotoxicological effects of arsenic bioaccumulation on spatial metallomics and cellular enzyme response in the spleen of male Wistar rats after oral intake. Toxicology Letters, 266, pp.65-73.

Sun, C., Jiang, M., Zhang, L., Yang, J., Zhang, G., Du, B., Ren, Y., Li, X. and Yao, J., 2017. Cycloastragenol mediates activation and proliferation suppression in concanavalin A-induced mouse lymphocyte pan-activation model. Immunopharmacology and Immunotoxicology, 39(3), pp.131-139.

Tewari, P., Mandal, P., Roy, R., Asthana, S., Dwivedi, P.D., Das, M. and Tripathi, A., 2017. A novel function of TLR4 in mediating the immunomodulatory effect of Benzanthrone, an environmental pollutant. Toxicology Letters.

Ustarroz-Cano, M., Garcia-Pelaez, I., Cervantes-Yepez, S., Lopez-Valdez, N. and Fortoul, T.I., 2017. Thymic cytoarchitecture changes in mice exposed to vanadium. Journal of immunotoxicology, 14(1), pp.9-14.

Wang, K.S., Li, J., Wang, Z., Mi, C., Ma, J., Piao, L.X., Xu, G.H., Li, X. and Jin, X., 2017. Artemisinin inhibits inflammatory response via regulating NF-kB and MAPK signaling pathways. Immunopharmacology and immunotoxicology, 39(1), pp.28-36.

Wu, Y., Jin, F., Wang, Y., Li, F., Ren, Z. and Wang, Y., 2017. In vitro and in vivo inhibitory effects of 6-hydroxyrubiadin on lipopolysaccharide-induced inflammation. Immunopharmacology and Immunotoxicology, 39(3), pp.107-116.

Xu, H., Medina, S., Lauer, F.T., Douillet, C., Liu, K.J., Hudson, L.G., Stýblo, M., Aleksunes, L.M. and Burchiel, S.W., 2017. Efflux Transporters Regulate Arsenite-Induced Genotoxicity in Double Negative and Double Positive T Cells. Toxicological Sciences.

Zhang, D., Li, H., Geng, J., Li, Y., Li, S., Ma, C., Cong, B. and Zhang, X., 2017. The therapeutic effects of cholecystokinin octapeptide on rat liver and kidney microcirculation disorder in endotoxic shock. Immunopharmacology and immunotoxicology, 39(1), pp.2-10.

#### **Methods/Models**

Merly, L. and Smith, S.L., 2017. Murine RAW 264.7 cell line as an immune target: are we missing something?. Immunopharmacology and Immunotoxicology, 39(2), pp.55-58.

#### Methods/Models, cont.

Phadnis-Moghe, A.S. and Kaminski, N.E., 2017. Immunotoxicity Testing using Human Primary Leukocytes: An Adjunct Approach for the Evaluation of Human Risk. Current Opinion in Toxicology.

#### **Reviews/Books/Commentaries**

Pallardy, M. and Bechara, R., 2017. Chemical or drug hypersensitivity: is the immune system clearing the danger? Toxicological Sciences.

Parker, G.A. ed., 2017. Immunopathology in Toxicology and Drug Development: Volume 1, Immunobiology, Investigative Techniques, and Special Studies. Springer.

Parker, G.A. ed., 2017. Immunopathology in Toxicology and Drug Development: Volume 2, Organ Systems. Springer.



### Save the Date!

