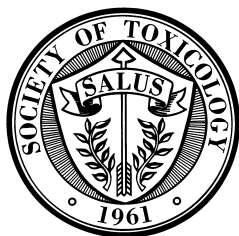


Immunotoxicology Specialty Section Newsletter



2010 - 2011 Executive Committee

President

Dr. Leigh Ann Burns Naas

Vice President

Dr. Rodney R. Dietert

Vice President-Elect

Dr. Greg Ladics

Secretary-Treasurer

Dr. Jacintha M. Shenton

Past President

Dr. Jean Regal

Senior Councilor

Dr. Wendy J. Komocsar

Junior Councilor

Dr. Kazuichi Nakamura

PostDoc Representative

Dr. Jennifer Franko

Student Representative

Xiaochu Zhang

The *ImTox SS Newsletter* is published 3 times/year (May, August and November). If you would like to share a book review, meeting report, interesting web site or any other item of interest with members of the Specialty Section, please send it to us by the middle of the month preceding the planned publication date. All comments on, or suggestions for, the newsletter are welcome.

Jacintha M. Shenton, Ph.D., Editor
jacintha.shenton@utoronto.ca (home)
jacintha.shenton@bms.com (work)

Typesetting / desktop publishing provided by
L. Peyton Myers, Ph.D.

Outgoing President's Message

Jean Regal, Ph.D.

What wonderful attendance in Salt Lake City at the celebration of 25 years of the ImTox SS!

Seventeen of the 25 presidents were in attendance, making for a great photo opportunity. My thanks to the 25th Anniversary Committee (Jeanine Bussiere, Rod Dietert, Leigh Ann Burns Naas, Stacey Anderson, Haitian Lu, Jacintha Shenton, Dori Germolec, and Peyton Myers) for all their work in making the event a success including the slideshow, decorations, and our 25th Anniversary logo. You, the members, deserve special thanks for your presentations, posters, attendance at sessions, and the great science. Thanks to Rod Dietert, we also have another great scientific program in the works for Washington, DC, 2011, the 50th anniversary of SOT.

I leave you in the competent hands of Leigh Ann Burns Naas who has many great ideas for the coming year including a continuing dialog with NIH to try to improve funding of immunotoxicology grants.

Thanks for all your support and participation in the Specialty Section!

Congratulations award winners.

<http://www.toxicology.org/ISOT/SS/imtox/2010winners.asp>

Photos (old and new) will be available on ToXchange. To participate in ToXchange go to <http://www.toxicology.org/ms/members.asp> and click on the ToXchange link. Once a member of ToXchange you can access the photos.

Don't forget – Visit the immunotoxicology website and donate to the HESI fund. <http://www.toxicology.org/ISOT/SS/imtox/Index.asp>



Dr. Jean Regal
President, ImTox SS
2009-2010

Incoming President's Message	pages 2-4
Committee Reports	pages 5-10
Awards	pages 11-13
ImTox SS 2010-2011 Committees	page 14
Pictures from SOT Meeting March 2010	pages 15-18
Announcements	pages 19-22
Job Advertisements	page 23
Recent Immunotoxicology Publications	pages 24-27

Incoming President's Message

Submitted by:

Leigh Ann Burns Naas
President ImTox SS
2010-2011



They say that time flies when you're having fun. That must be true because it seems like just yesterday I was attending my first Society of Toxicology (SOT) and my first Immunotoxicology Specialty Section (ImTox SS) reception as an aspiring graduate student...but it was 21 years ago! (and I can honestly say that those last 21 years have definitely been fun!) As we honored the Past-Presidents at the reception in Salt Lake City, I remember thinking how neat it has been that I've had the chance to interact with nearly all of them in one way or another over my career and how so many have helped shape my career. Indeed, I can say the same thing about so many of our Specialty Section members! In many ways, our receptions are like big family reunions. As we move into our next 25 years, I think about the students and postdocs who were there this year, those who will be coming into the Section next year, and the year after that, and I want to follow in the footsteps of those who have led before me to help assure that they will also be looking back over 20+ years and thinking how much our Section

and its members have accomplished not only for immunotoxicology/toxicology in general, the SOT, and the world we live in, but for how we have all been instrumental in helping each person in our Specialty Section succeed in the path they have chosen. I'm proud, but humbled, to be able to lead such a wonderful group of people.

A BIG THANK YOU to Jean Regal for being a terrific mentor and President this past year. I wouldn't be nearly as prepared without her. A thank you as well to everyone who helped plan the 25th Anniversary Celebration, to Jean and Nancy Kerkvliet who made monetary donations to the cause so we didn't dig too deep into our budget, to Jeanine Bussiere and Dori Germolec who independently acquired many of the decorations, to all of you who sent in pictures, to everyone who attended and helped make the evening special, and to Peyton Myers for pulling the 25 Years in Review slide show together. That presentation will be available on ToXchange for anyone in the Section who may want it. I'm hopeful that we can use ToXchange as a go-forward repository for photos that each of you may have of members – regardless of venue – that we can use for future anniversary celebrations. A special thank you also goes to the SOT, who gave us a special dispensation on the time

(giving us an extra 30 minutes) and regular rotation for the event night (we were supposed to be on Wednesday night, which would have conflicted with the President's Reception).

As I write this message, I'm also working to finalize my goals for Pfizer, so I figured this was a good time to make some statements around goals for the Specialty Section in the 2010-2011 year as well. The first (Goal 1) is around continuing to follow up on the toxicology study section and immunotoxicology grant review issues. Jean Regal and Steve Pruett have details of current activities and recommendations in a separate article in the newsletter. Suffice to say that this is still an ongoing issue for many of our members and an important one to immunotoxicology as a whole. We will be forming an *ad hoc* committee to continue to follow and report back on the matter, to make recommendations for actions that may be needed (e.g., the letter campaign for SIEE), and to act as needed to help our members direct their grants appropriately. Some early ideas the committee will consider include possible conference calls with individual group administrators for the three study sections (LIRR, XNDA, III) and monitoring of the funding rates etc. for immunotoxicology vs. other grants in each section as well as the contributions of *ad hoc*

members of the study sections (consistent service vs. one-offs, relative weighting of their contributions, etc.). I encourage us all to support each other in this effort as I believe that our ability to effect change over time will be greater as a whole unit. If you have an interest in being involved in or in leading this initiative, please send me an email (leighann.burns@pfizer.com) to let me know.

Related to Goal 1 is something that was brought up and discussed at the Executive Committee Meeting in SLC relative to getting more visibility for immunotoxicology scientists. I think this is critical in a time where grant funding is increasingly difficult to get. Judy Zelikoff and Peter Thomas noted the value that had previously been provided through the smaller regional meetings such as the one supported by the Foundation for Immunotoxicology (aka, the Virginia Beach meetings), the Immunotoxicology Discussion Group, and others. Certainly these meetings fostered visibility for junior scientists, an opportunity for students to meet with the “up and comers” as well as the “silverbacks” (as Robert House once referred to the ‘more experienced’ of our section!), and a networking opportunity between sectors (academic, government, industry, etc.). At least two other folks in our Specialty Section have mentioned the Virginia

Beach meeting in the past couple of years and about how they’d like to see something like that started again...and were willing to help out! It must be a “sign” that it keeps coming up to me over and over again, so I’m making it a goal this year (Goal 2) to investigate the feasibility of a recurring regional meeting with a stretch goal of having a said meeting before the end of 2011. There are multiple approaches we can take to rekindle this type of activity and I will be forming a small but diverse *ad hoc* committee to work on this during 2010. If you’re interested, send me a note at leighann.burns@pfizer.com.

Goal 3 is to bring our By-Laws up to date. It has been 8 years since they were reviewed and revised, and some of our practices and activities suggest a need to dust them off and bring them up to date. I will be asking for an *ad hoc* committee to address this and bring a proposal back to the Executive Committee for endorsement.

Jean Regal mentioned at the reception that I will be serving on the new Specialty Section Governance Board. Other members include Cindy Afshari (Drug Discovery Toxicology), Elaine Faustman (Risk Assessment), Jose Manautou (Mechanisms), and Brian Short (Regulatory and Safety Evaluation). All 2010 Specialty

Section Vice Presidents (VPs) were on the ballot and 5 were selected by majority vote of the Presidents. Five additional individuals will be added from the 2011 VPs beginning next year. The goal of the Specialty Section Governance Board is to allow smaller groups with similar interests to speak with one voice, coordinate better, assist with submissions, address common issues or concerns, etc. It also allows the SOT Council to reach out more easily to all groups. The Board is similar to the Special Interest Group (SIG) Coordinating Council which has been instrumental in helping across the SIGs and generating collaborations for a variety of activities. If you have specific concerns that you believe should be taken up by the committee, please let me know. One item that has been raised to the group by me and other individuals is the rising cost of receptions and the steady state level of our income as Specialty Sections (Goal 4). You will definitely be hearing more about that.

Finally, we’ve begun the race toward the 50th Anniversary Celebration for the SOT in Washington, DC, in 2011. That brings me to the final goal (Goal 5) for us this year. There are multiple activities that are ongoing to highlight all the various aspects of toxicology, including immunotoxicology.

However, I think it would be terrific if there were an opportunity for all the Specialty Sections to highlight their achievements – not only of the discipline, but of the Specialty Section as well. Other Specialty Section officers have made a similar suggestion. It's unclear to me at present whether all the plans are already in place by the SOT 50th Anniversary Task Force or whether there may still be opportunity to add. As such, and because it cuts across all Specialty Sections, this is an activity that is best worked through the Governance Board so I'll be talking with them about how we might be able to make this happen.

We have quite a full Agenda for 2010-2011, but we also have a fantastic Extended Executive Committee and, probably more importantly, an outstanding membership that is very active and whom I know will want to be involved so I encourage you to do that. I'm proud, but humbled, to be able to lead such a wonderful group of mentors, colleagues... friends, one and all. Twenty five years are behind us. The next 25 lay ahead. Let's harness the momentum and keep it going "to infinity... and beyond!"



Immunotoxicology Specialty Section 2010 - 2011 GOALS

1. Follow-up on the toxicology study section and immunotoxicology grant review issues.
2. Investigate feasibility for a recurring regional immunotoxicology meeting (2010) and hold the first of these before the end of 2011.
3. Update the By-Laws to reflect changes since the last update (circa 2002).
4. Fiscal Responsibility – Investigate means to reduce cost of the reception at the annual meeting and implement any recommended changes in 2011, as appropriate.
5. Work within the Specialty Section Governance Board to investigate feasibility and identify ways to highlight Specialty Sections and their contributions for the 50th Anniversary of the SOT in 2011.

Regulatory Committee Report



Submitted by: Peter Thomas

ICH Releases Draft Addendum to S6 Guidance Document on Biopharmaceuticals.

On October 29th, 2009, the International Conference on Harmonization of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) released a draft Addendum to ICH S6 “Preclinical Safety Evaluation of Biotechnology-Derived Pharmaceuticals”. Having been agreed upon by the Steering Committee, S6(A1) has been transmitted to the regulatory authorities in the three ICH regions (the EU, Japan and USA) for consultation.

Based on scientific advances and experience gained, this document provides clarification on five key areas related to the original ICH S6 guidance. They are: species selection for nonclinical studies; study design; immunogenicity assessment; reproductive and development toxicity; and carcinogenicity. The major points are highlighted below.

With respect to species selection, the use of tissue cross-reactivity (TCR) to justify species selection is no longer recommended. Other approaches that assess target expression such as flow cytometry

may be more appropriate. However, TCR data with human tissues can provide useful information on unexpected target binding.

Circumstances that justify the use of one vs. two species (pharmacological relevance vs. toxicologic findings) are also discussed. Furthermore, appropriate uses of homologous (surrogate) proteins, transgenic, knockout or disease models for safety assessment are also mentioned in this addendum.

With respect to study design, additional guidance is provided regarding dose selection and the use of pharmacokinetic/pharmacodynamic (PK/PD) approaches to identify a dose which provides the maximum intended pharmacological effect in animals, or a sufficient exposure multiple over the maximum to be achieved clinically. The document also provides clarification on the duration of studies, and appropriateness of recovery.

With respect to immunogenicity, this document provides guidance on when it is appropriate to collect samples and analyze anti-drug antibody data in nonclinical studies. Given that such analyses are not relevant in terms of predicting immunogenicity in humans, the value of these data for interpretation of nonclinical study results is discussed.

With respect to reproductive toxicity, the document refers the reader to the principles outlined in ICH S5(R2). Additional discussion focuses on species selection, when it is appropriate to conduct such studies in the nonhuman primate, a transgenic animal model, or if alternative approaches to safety assessment can be considered. With respect to developmental toxicity, species selection, study design and timing relative to clinical trials are discussed in some detail.

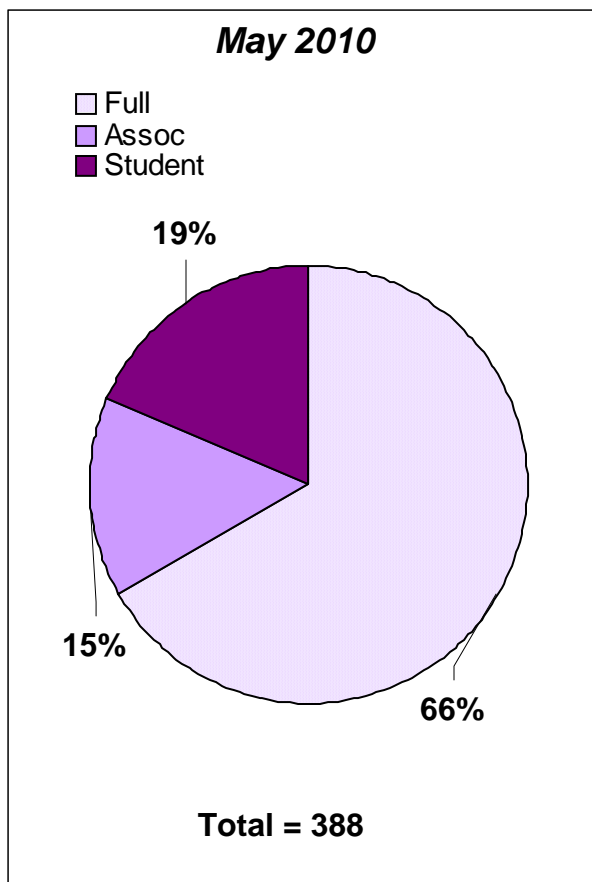
With respect to assessment of carcinogenicity of biopharmaceuticals, the principles of ICH S1a apply. However, alternative approaches that would preclude the need for rodent bioassays such as including additional endpoints in toxicity studies or evaluation of data from in vitro or chronic toxicity studies to understand potential risk are discussed. For those biopharmaceuticals that pose a potential carcinogenic risk (immune modulators, growth factors) post-marketing clinical surveillance may inform risk better than conducting additional animal studies. Despite these approaches, there is clearly a need for better tools to assess potential carcinogenicity.

To read the complete document, go to <http://www.ich.org> and click on “Step 2 Guidelines”.

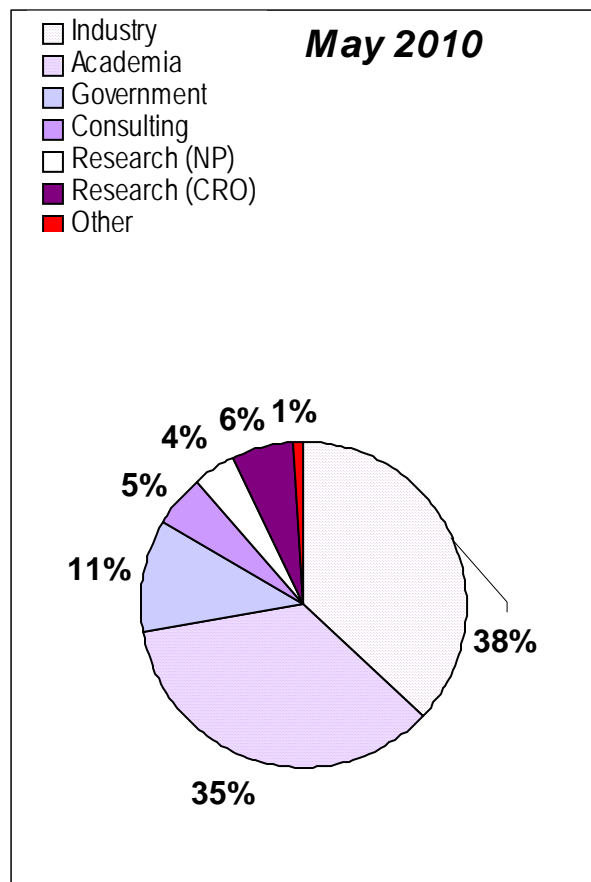
ImTox SS Membership Committee Report

Submitted by: George DeGeorge

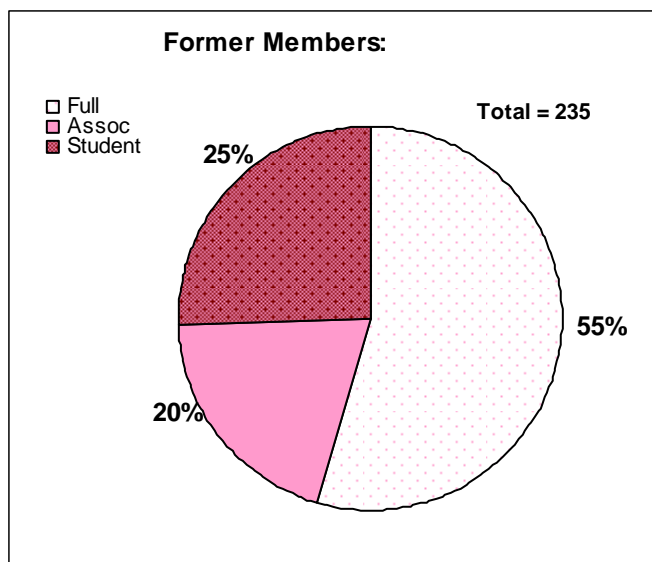
By Membership Category



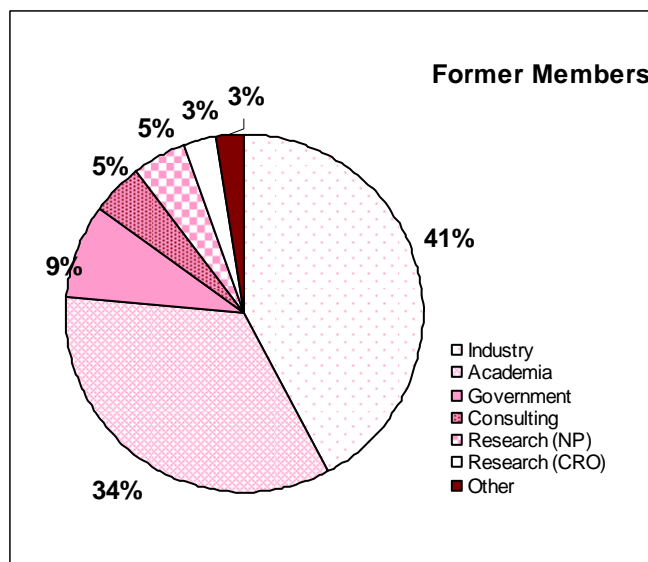
By Organization Category



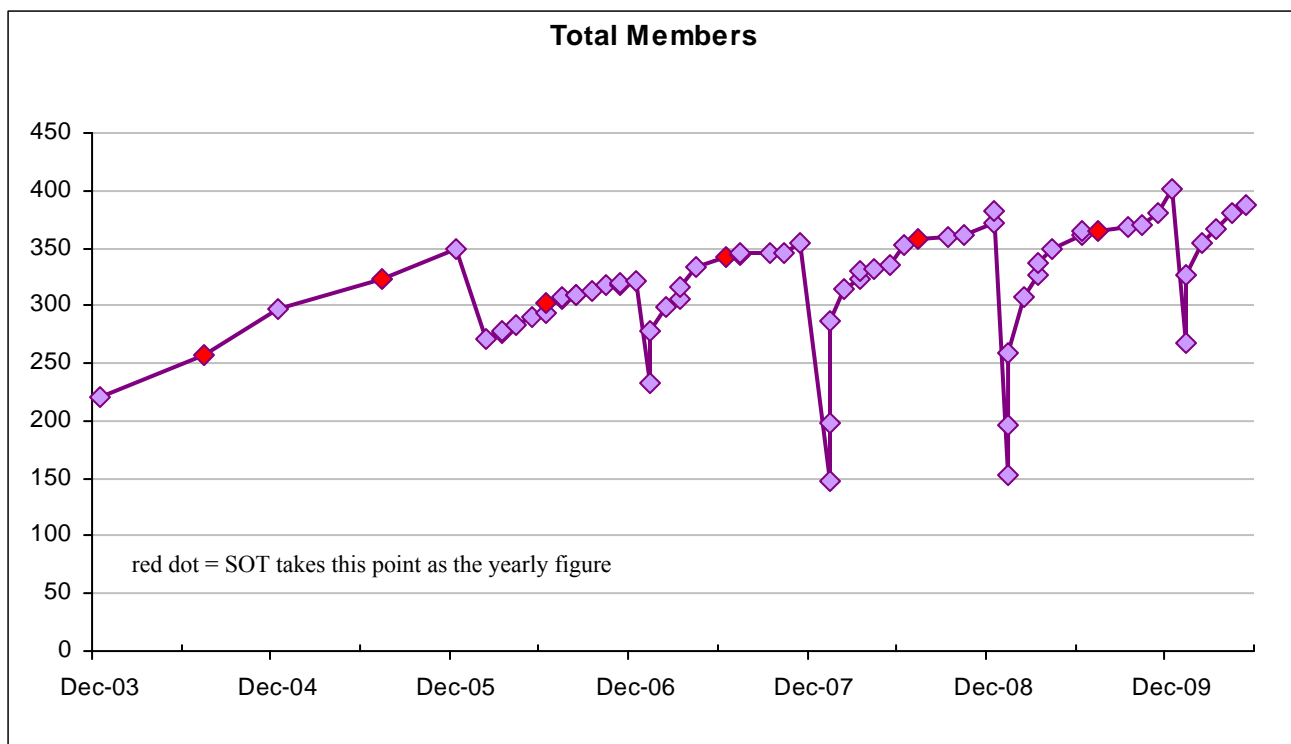
Former Members:



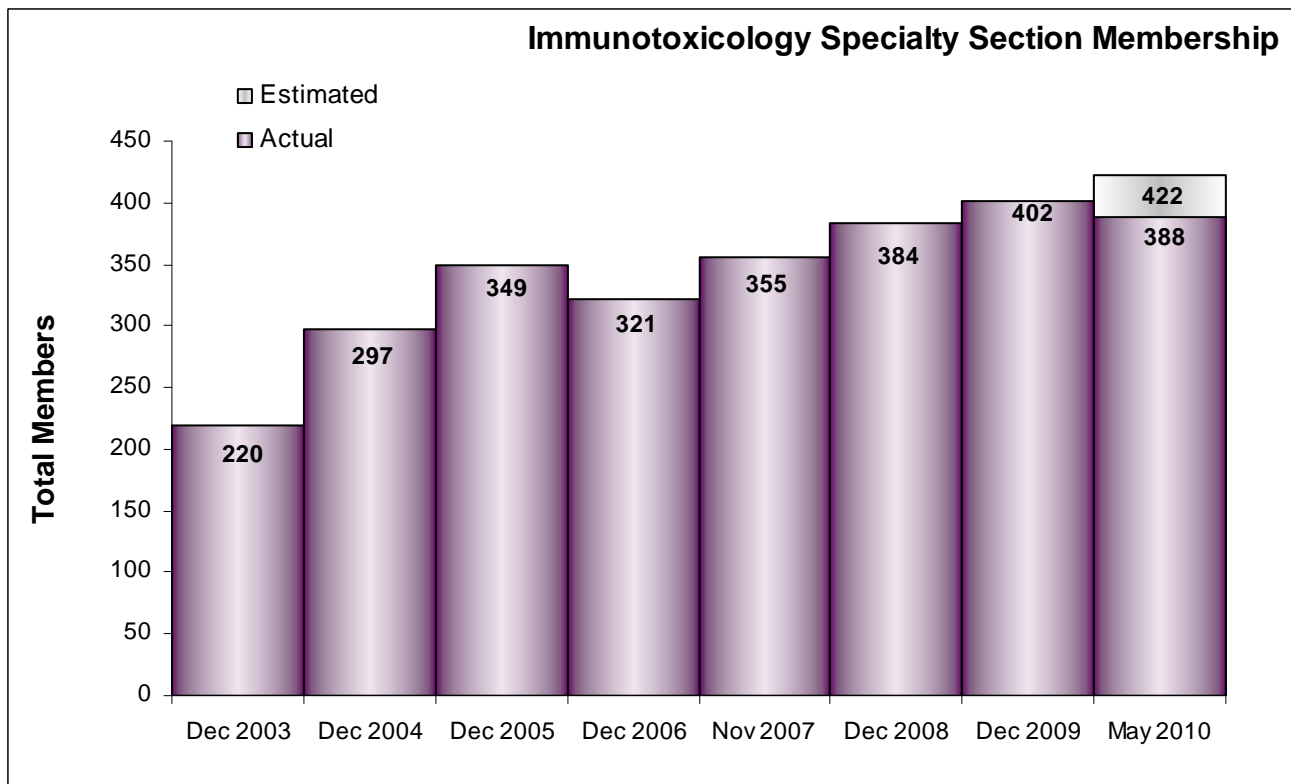
Former Members:



ImTox SS Membership Committee Report



Note: The “dip” occurs when SOT deletes those who haven’t renewed at the end of the year.



Note: "estimated" indicates an arbitrary 5% increase over Dec of last year.

International Exchange Committee Report

Submitted by: Mitchell Cohen

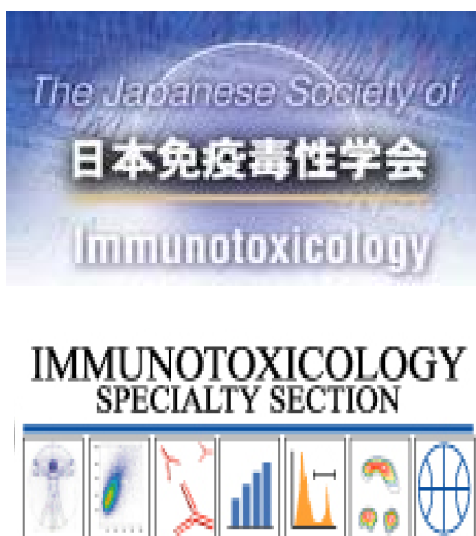
The International Exchange Committee (IEC) is pleased to report that the Symposium on “Silica and Asbestos Immunotoxicity: Mechanisms to Fibrosis, Autoimmunity, and Modified Tumor Resistance”, jointly chaired by Drs. Andrij Holian Kerkvliet (University of Montana) and Takemi Otsuki (Kawasaki Medical School, Kurashiki, Japan), was a great success at the 2010 Annual SOT Meeting in Salt Lake City. Dr. Otsuki was the second official representative of the Japanese Society of Immunotoxicology (JSIT) to co-chair a session at our National Meeting, thereby fulfilling a major goal of the Exchange Program that has been developed between our specialty section and the JSIT.

The IEC is also pleased to announce that the invited JSIT representative for the 2011 Annual SOT Meeting in Washington, DC, – Dr. Takahiko Yoshida (Asahikawa Medical College, Asahikawa, Japan) – and Dr. Ian Kimber (University of Manchester, Manchester, UK) have put together a Workshop on “Identification of Chemical Respiratory Allergens: Principles

and Practice” that is now awaiting final approval by the SOT National Program Committee. We look forward to this and future jointly chaired sessions generated by members of both of our Societies.

At the Salt Lake City meeting, it was also announced that one of our specialty section members will speak at the upcoming JSIT 2010 meeting to be held in September in Tsukuba, Japan. Based on the meeting’s theme of “Immunotoxicology and Susceptibility”, our Specialty Section asked Dr. Gary Burleson to speak to the JSIT membership on this very critical topic.

Lastly, at the ImTox SS reception, the IEC was informed that the JSIT 2011 Meeting will be held in Chiba, Japan. No details as to dates or themes are yet set in stone; when more information becomes available, it will be posted.



Program Committee Report



Submitted by: Rod Dietert

I want to thank the ImTox SS Program Committee and of course our members for their efforts to bring forward a robust series of program proposals for the 2011 SOT Annual Meeting in D.C. Given that this meeting will be the 50th anniversary meeting of the SOT, it will hold special significance. It is important that immunotoxicology be well represented on this program. The draft proposals considered by the Program Committee and approved for further development by the ImTox SS Executive Committee are included in the following table. There are five Symposia, two Workshops and one CE Course undergoing further development for a late April submission. The topics covered are broad and timely and the opportunities for inter-specialty section interests are significant. These proposals will be going forward to the SOT Scientific Program Committee for further consideration. We look forward to that review and will provide further updates on the program in the August newsletter.

NIH and Review of Immunotoxicology Grants

Submitted by: Jean Regal and Steve Pruett

In the Fall of 2009, SOT had discussions with the Center for Scientific Review (CSR) at NIH regarding review of toxicology grants. CSR appointed Dr. Seymour Garte to be the Director of CSR's Division of Physiological and Pathological Sciences. Input from the Toxicology community was solicited regarding the one year trial period for the SIEE (Systemic Injury by Environmental Exposure) Study Section. The Initial Review Groups (IRG) Subcommittee of the ImTox SS was re-activated, chaired by Steve Pruett, and a general letter of support for SIEE from the ImTox SS was submitted. Thanks to the subcommittee for their work on this: Stephen Pruett, Norbert Kaminski, Deborah Keil, Paige Lawrence, Judy Zelikoff, and Prakash Nagarkatti. Besides this general letter of support, more than a dozen individual letters of support were also submitted by ImTox SS members in support of continuation of SIEE. Unfortunately, CSR decided to discontinue SIEE.

Where do immunotoxicology grants get reviewed? Per Steve Pruett's discussions with Dr.

Garte in February 2010 - immunotoxicology grants will generally be assigned to the following Study Sections

1. Lung Injury, Repair and Remodeling (LIRR)

- SRO, Dr. Ghenima Dirami (diramig@csr.nih.gov)
- 301-594-1321
- <http://cms.csr.nih.gov/PeerReviewMeetings/CSRIRGDescriptionNew/CVRSIRG/LIRR.htm>

2. Xenobiotic and Nutrient Disposition and Action (XNDA)

- SRO, Dr. Patricia Greenwel (GREENWEP@csr.nih.gov)
- 301-435-1169
- <http://cms.csr.nih.gov/PeerReviewMeetings/CSRIRGDescriptionNew/DKUSIRG/XNDA.htm>

3. Innate Immunity and Inflammation (III)

- SRO, Dr. Tina McIntyre (mcintyrt@csr.nih.gov)
- 301-408-9094
- <http://cms.csr.nih.gov/PeerReviewMeetings/CSRIRGDescriptionNew/IMMIRG/III.htm>

These study sections will add toxicology expertise, but the number of permanent members

who are toxicologists will depend on the number of grants submitted. Therefore, it is potentially in the best interest of immunotoxicology that you request one of these three study sections in your cover letter. It is also advisable that you carefully examine the areas of expertise represented on each panel and direct your application to the correct one. Some aspects of immunotoxicology are not appropriate for these three panels. Discussions with the Scientific Review Officer can also help you decide where your grant will get the most appropriate review. If you encounter examples of inappropriate reviewer comments which seem to reflect lack of knowledge or appreciation for the toxicology components of the application, these should be pointed out (in a nice way, of course) to the Scientific Review Officer. The Scientific Review Officers know their handling of immunotoxicology applications will be carefully scrutinized, so they should be sensitive to these types of concerns.

Stay tuned! Incoming President Leigh Ann Burns Naas is planning continuing efforts in this arena.

Student and Postdoctoral Report



Submitted by:

Xiaochu Zhang, Student

Representative

Jennifer Franko, Postdoctoral

Representative

Greetings fellow students and postdocs! We hope all of you had a productive and enjoyable time in Salt Lake City. We would like to begin by acknowledging Haitian Lu for his services as the graduate student representative and Stacey Anderson for her service as the postdoc representative, for the last two years. I think I can speak for everyone in commending Haitian and Stacey on a job well done. We wish them the best of luck with all of their future research and scientific endeavors! We are the new student and postdoctoral representatives Xiaochu (Chu) Zhang who comes from the University of Toronto in Toronto, ON, and Jennifer Franko who comes from the National Institute for Occupational Safety and Health (NIOSH) in Morgantown, WV. Both Chu and I look forward to serving as your new representatives and hope that you will not hesitate to contact us with ideas or comments about how the ImTox SS can better serve the career development of young sciences and/or how as young scientists we can better contribute to the advancement of the field of immunotoxicology.

Next we wanted to thank everyone that participated in the student/postdoc mixer in Salt Lake City. The mixer was held at the Poplar Street Pub on Tuesday night following the ImTox SS reception. We had about 20-25 students and postdocs in attendance. It was an extremely enjoyable night, meeting and talking with other young scientists in the field in a casual atmosphere away from the hecticness of the conference itself. These mixers are a great place for getting to know fellow students/postdocs in the field of immunotoxicology. So, if you missed out on the mixer during this past SOT meeting, be sure to plan to attend next spring at the meeting in Washington, DC, where there will be a similar opportunity to meet and talk with other students and postdocs. Please watch for information about our meeting place in upcoming communications from the ImTox SS as the 2011 national meeting approaches.

We would also like to encourage students and postdocs to be recognized for their hard work and their contributions to the field of immunotoxicology by soliciting nominations from your advisors for the ImTox SS graduate and postdoc trainee awards. Winners are recognized each year at the national conference and receive a plaque and cash award. Nominations have been low the past few years. Don't let your hard work go unnoticed. Have your advisor nominate you for next year's award. For descriptions

of the awards please go to <http://www.toxicology.org/ISOT/SS/imtox/deadlines.asp>.

And finally, we urge student members to consider signing up for ImTox SS committees. Committees include the Awards, Communications, Program, and Regulatory Committees. Descriptions of these committees are available on the ImTox SS website (<http://www.toxicology.org/ISOT/SS/imtox/committees.asp>). Serving on committees is a great way to make new contacts, learn more about SOT business, serve fellow SS members, and/or to catch up with hot topics in the area of immunotoxicology. If you missed the chance to sign up at the reception, please enquire with individual committee chairs about joining or contact the ImTox SS Secretary-Treasurer (shentonj@medimmune.com); each committee has 2 seats reserved for student members.

If you have any questions about student representation on the ImTox SS or how the ImTox SS can best serve you as a student of immunotoxicology, please feel free to contact me at hfy0@cdc.gov or Xiaochu Zhang at xiaochu.zhang@utoronto.ca. Additional information can be found on the SOT website for students and postdocs at <http://www.toxicology.org/ISOT/SS/immunotox/student.html>.

Vos Award — Career Achievement in Immunotoxicology

**Jacques Descotes, M.D.,
Pharm.D., Ph.D.**

*Submitted by: Jacques Descotes
and Ken Hastings*



Dr. Descotes began his career in toxicology as a medical student in the Lyon Poison Control Center in 1973. He earned an M.D. and was appointed Assistant Professor of Pharmacology, both in 1976, at Claude Bernard University in Lyon, France. In addition, he was appointed as a physician in the Medical Emergency and Clinical Toxicology Department of Edouard Herriot Hospital where a Post-Marketing Drug Surveillance (Pharmacovigilance) Center was being established. While serving in these academic and clinical positions, Dr. Descotes realized the importance of drug allergies, which began his interest in immunology and immunopathology.

In 1980, Dr. Descotes earned a Pharm.D. in Immunopharmacology and Immunotoxicology from Claude Bernard University and developed a firm commitment to immunotoxicology as he moved to new research facilities. He was promoted to Associate Professor in 1982, and served as the Scientific Director of a new

INSERM Laboratory (the French equivalent of NIH) in 1986. Since then, he was the Principal Investigator for several research programs in immunotoxicology funded by French and European grants. He served as an academic advisor for 23 candidates for M.S., Pharm.D., Ph.D., and M.D. These students worked on several aspects of preclinical and clinical immunotoxicology, with a special focus on the popliteal lymph node assay.

Dr. Descotes published his first book on immunotoxicology in 1986, followed by seven others. In addition, Dr. Descotes has published five books on clinical and preclinical toxicology. In 1988, he earned a Ph.D. in Clinical Pharmacology from Claude Bernard University and was appointed Medical Director of the Lyon Poison Center and Professor of Pharmacology in 1990. In 1992, he founded the nonprofit association Summerschool in Immunotoxicology and has served as Scientific Director of 18 annual summer schools held

in France. The Summerschool is the longest existing scientific event entirely devoted to immunotoxicology in the world. In 1999, he was appointed Head of the Poison Center and Pharmacovigilance Department at Lyon University Hospitals and currently holds this position.

Throughout his career, Dr. Descotes has remained committed to both clinical and nonclinical toxicology and immunotoxicology. In recent years, Dr. Descotes has become increasingly involved in the immunotoxicity and safety evaluation of therapeutic proteins and innovative medicines, including nanomaterials and gene therapies. Over the years, he has served on various scientific and regulatory committees at the national and international level. He was the first Chairperson of the Eurotox Immunotoxicology and Chemical Allergy Specialty Section (ITCASS). In 2002, he was the recipient of the Eurotox Gerhard Zbinden Annual Award and has been a Fellow of the US Academy of Toxicological Sciences since 2001. He has published over 360 manuscripts and chapters, including 182 papers in various aspects of immuno-toxicology. Dr. Descotes is widely recognized as one of the founders of the science of immunotoxicology and he is a most deserving recipient of the Vos Award.

Immunotoxicology Specialty Section Awards Winners - 2010



Vos Award - Career Achievement in Immunotoxicology Winner:
Jacques Descotes, M.D, Pharm D., Ph.D.



Best Paper of the Year Award
Winner:
Yucesoy B, Johnson VJ,
Fluharty K, Kashon ML,
Slaven JE, Wilson NW,
Weissman DN, Biagini RE,
Germolec DR, Luster MI.,
Influence of cytokine gene
variations on immunization to
childhood vaccines. Vaccine.
2009 Nov 23;27(50):6991-7.



HESI Immunotoxicology
Young Investigator Travel
Award Winner:
Megumi Maeda, Ph.D.

Immunotoxicology Specialty Section Awards Winners - 2010



1st Place Student
Presentation Award Winner:
Jennifer L. Head



2nd Place Student Presentation
Award Winner: Katryn Allen



3rd Place Student
Presentation Award Winner:
Haitian Lu



Outstanding Young
Investigator Award Winner:
L. Peyton Myers, Ph.D.



Best Presentation by a
Postdoctoral Trainee Winner:
Guangbi Jin, Ph.D.

Immunotoxicology Specialty Section Committee Lists: 2010-2011

Regulatory Committee

Peter Thomas (Chair)
peter.thomas@covance.com
Cindy (Xinguang) Li
Kameshwar Singh
Herve Lebrec
Carmen Booker
Colin North
Robert (Jinze) Li

Communications Committee

Susan McKarns (Chair)
mckarnss@health.missouri.edu
Michael Laiosa
Robert (Jinze) Li
Ashwini Phadnis
Weimin Chen

Awards Committee

Wendy Komocsar (Chair)
komocsarwj@lilly.com
Barbara Mounho
Michelle Horner
Kameshwar Singh
Vic Johnson
M. Firoze Khan
Narendra Singh
Colin North
Berran Yucesoy

Membership Committee

George DeGeorge (Chair)
degeorge@mbresearch.com

Program Committee

Greg Ladics (Chair)
gregory.s.ladics@usa.dupont.com
Jamie DeWitt
Jared Brown
Tony Arulanandam
Kameshwar Singh
Vic Johnson
Herve Lebrec
Narendra Singh
M. Firoze Khan
Jim Pestka
Lisa Ryan
Jacintha Shenton
Marija Popovic
Berran Yucesoy
Ian Kimber

Education Committee

Judy Zelikoff (Chair)
judith.zelikoff@nyumc.org
Colin North
Thitirat Ngaoteprutaram

If you would like to join a committee, there are still places on the Regulatory, Communications, Education and Awards Committees. Please contact the ImTox SS Secretary-Treasurer or the Chairperson of the committee(s) if you are interested in joining.

Society of Toxicology — Annual Meeting 2010

ImTox SS Reception and 25th Anniversary Celebration



ImTox SS Past Presidents

Back Row (L-R): Dan Wierda, Jeanine Bussiere, Mitch Cohen, Nancy Kerkvliet, Dori Germolec, Jean Regal, Judy Zelikoff, Ken Hastings.
Front Row (L-R) Peter Thomas, Scott Burchiel, MaryJane Selgrade, Bob Luebke, Steve Pruett, Robert House, Kathy Rodgers, Al Munson, Mike Luster.





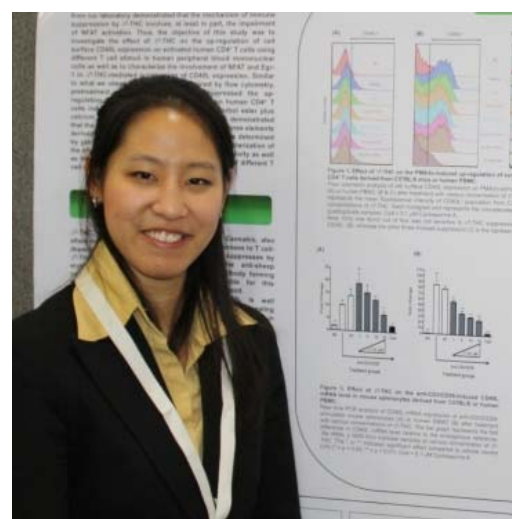
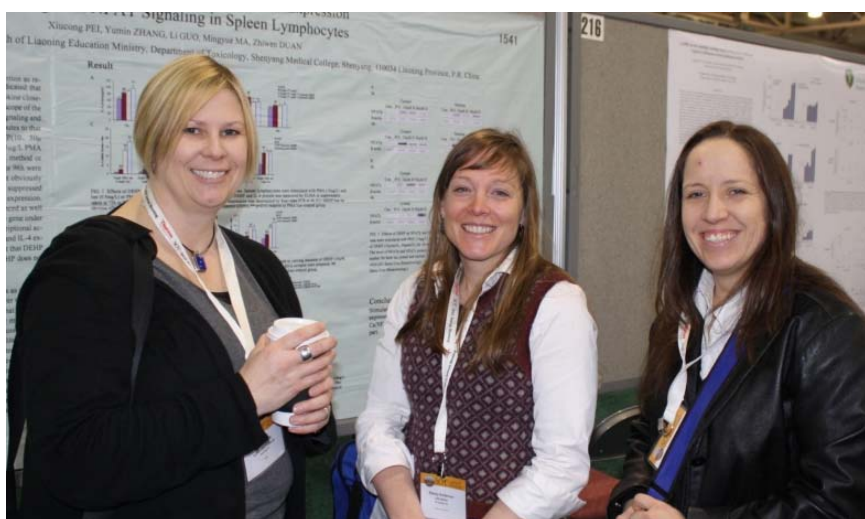
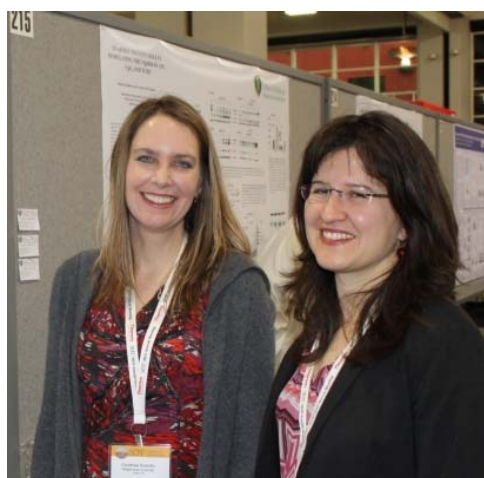
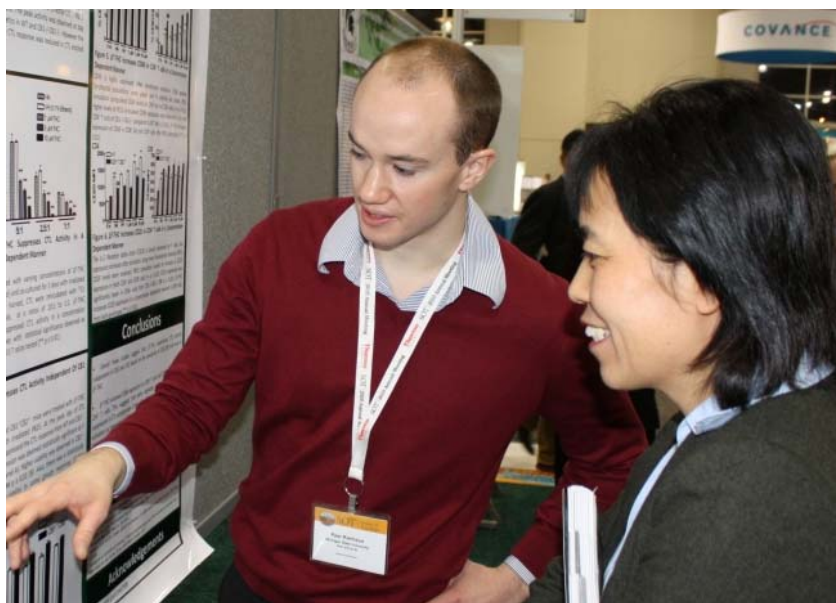
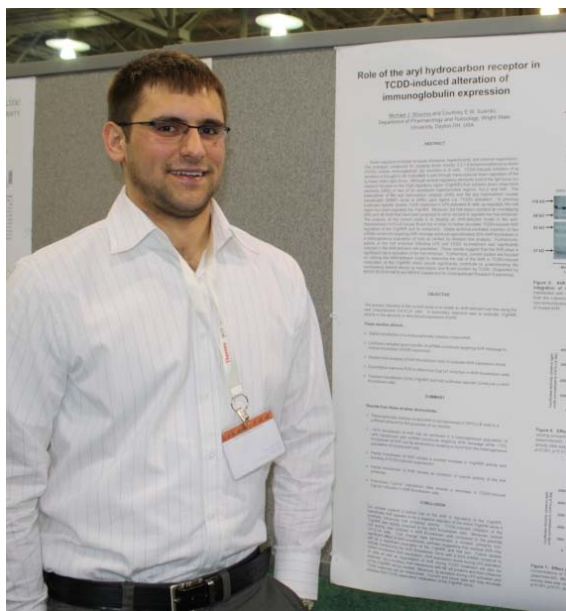


Each of the Past Presidents received a small token of appreciation – a business card holder engraved with the ImTox SS 25th anniversary logo.

Executive Committee Meeting



Poster Sessions



informa
healthcare

Journal of Immunotoxicology

INDEXED
IN
MEDLINE



Publication 2010

Volume: 7, 4 issues a year

Print ISSN: 1547-691X

Online ISSN: 1547-6901

Editor-in-Chief:

Mitchell D. Cohen, Ph.D.

New York University School of
Medicine,

Nelson Institute of

Environmental Medicine,

57 Old Forge Road, Tuxedo,

NY 10987, USA

E-mail:

mitchell.cohen@nyumc.org

The essential publication for you to keep up to date on research findings in all areas of immunotoxicology.

Journal of immunotoxicology provides you with high-impact, peer-reviewed research articles on:

- immunology
- toxicology
- molecular immunotoxicology
- developmental immunotoxicology
- pulmonary immunotoxicology
- regulatory immunotoxicology
- nutritional immunotoxicology
- mechanistic immunotoxicology
- wildlife immunotoxicology
- environmental immunotoxicology

Request a free trial today!

- ✓ **Free archive access** – unlimited access to decades of high-quality research is included with your subscription, saving you money when searching historical data
- ✓ **Electronic delivery** – fast publication of articles, available in a range of formats, enables you to quickly find the information you need, when you need it
- ✓ **Articles available online ahead of print publication** – stay ahead in your field by viewing research online weeks before print publication
- ✓ **Global coverage** – authoritative articles from around the world give you a global perspective on the subjects that matter to you
- ✓ **Peer-reviewed, high impact research** – make the right decisions with confidence with the trustworthy and authoritative content.

REQUEST
A FREE TRIAL
TODAY!

To start your risk-free trial contact

Yemi.Adedeji@informa.com or call **+44(20)701 76875**.

Be the first to get the latest toxicology research

Register for free Table of Contents alerts today and be sure that you never miss an article.

Registering is easy. Simply register your information for free at www.informahealthcare.com/alerts and select alerts for the journals of your choice.

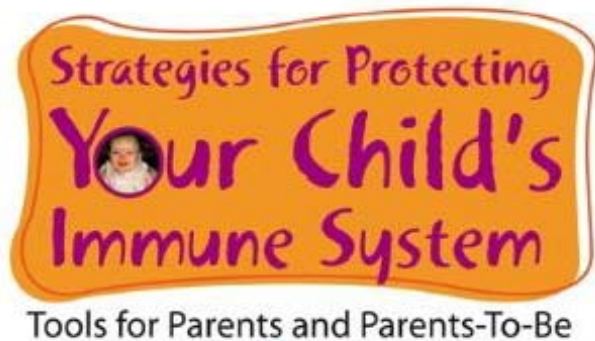
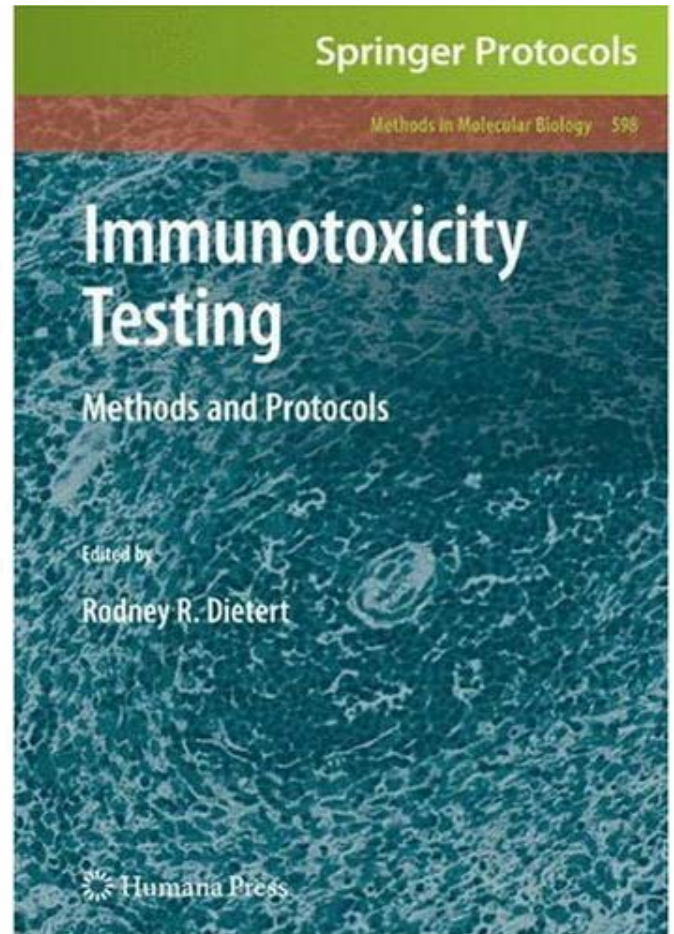
www.informahealthcare.com/imt

MD 7820

Two New Immunotoxicology Books – Spring 2010

Two books on immunotoxicology have been released during the spring of 2010. Both are available via amazon.com and other online and in-store distribution outlets.

The first book, ***Immunotoxicity Testing*** (ISBN-13: 978-1607614005) edited by Rodney R. Dietert and published via Humana Press/Springer, is a multi-authored reference book covering the approaches, methods and detailed protocols for evaluation of the immune system.



Rodney R Dietert
Janice Dietert



The second book is possibly the first ever general audience book in immunotoxicology. Authored by Rodney R. Dietert and Janice Dietert, published via World Scientific Publications (Singapore/London) and designed for parents, family members and health care providers, ***Strategies for Protecting Your Child's Immune System*** (ISBN-13: 978-9814287098) provides readers with risk reduction strategies for the developing immune system.

19th Summerschool in Immunotoxicology

IMMUNOGENICITY OF PROTEINS

Marseille, France - 27-29 September 2010

Chairperson : *J.Descotes (Poison Center and Pharmacovigilance, Lyon, France)*

PROVISIONAL SCIENTIFIC PROGRAM (February 2010)



MONDAY 27th

10:00 - **Start of registration and welcome coffee**

12:00 - **Opening lunch**

13:45 - **Welcome to participants**

14:00 - **Challenges in assessing the immunogenicity of therapeutic proteins**

I.Kimber (University of Manchester, UK)

14:45 - **Factors influencing the immunogenicity of proteins: current evidence**

(Speaker to be confirmed)

15:30 - **Coffee break**

16:00 - **Immunogenicity of therapeutic proteins: clinical adverse consequences**

J.Descotes

16:45 - **Immunogenicity/allergenicity evaluation of new proteins in food: current approach**

C.Herouet-Guicheney (Bayer Crop Sciences, France)

17:30 - **Social event**

20:00 - **Dinner**

<http://www.school-immunotoxicology.org/>

TUESDAY 28th

09:00 - **Bioinformatics tools for the prediction of protein immunogenicity**

M Baker (Antitope, UK)

09:45 - **In silico, HLA binding and T cell assays: how to use the toolbox of immunogenicity prediction of therapeutic proteins**

B. Maillere (CEA, France)

10:30 - **Coffee break**

11:00 - **In vitro lymphocyte activation assays to predict the immunogenicity of proteins**

(Speaker to be confirmed)

11:45 - **Endpoints to assess immunogenicity and associated consequences in nonclinical studies**

I. Gourley (Pfizer, USA)

12:30 - **Lunch**

13:45 - **Role of preclinical testing in managing changes in CMC**

P. Bugelski (Centocor, USA)

14:30 - **Comparative immunogenicity assessment of biosimilars**

R. Thorpe (National Institute for Biological Standards and Control, UK)

WEDNESDAY 29th

09:15 - **How do preclinical immunogenicity results with human proteins impact the design of clinical trials?**

J. Cavagnaro (AccessBio, USA)

10:15 - **Perspectives in the assessment of the immunogenicity of therapeutic proteins: a regulator's point of view**

(Speaker to be confirmed)

11:00 - **General discussion**

12:00 - **Concluding remarks**

12:15 - **Closure of summerschool and farewell lunch**

POSTDOCTORAL POSITION ON NIEHS TRAINING GRANT

The Department of Environmental Medicine at the NYU School of Medicine (NYUSOM) is seeking applicants for a postdoctoral position on its NIEHS training grant. If you are interested in the position or have a candidate in mind, [deadline for submission](#) is **June 4, 2010**. All applications must be submitted either to Angela.muniz@nyumc.org. **The candidate must be a U.S. citizen or permanent resident (i.e., green card).**

The postdoctoral training program emphasizes research conducted on a particular **Toxicology** project in collaboration with a member of the Department faculty (Mentor). Whenever possible, interdisciplinary collaboration will be encouraged for the trainee's postdoctoral research project, so that they can gain maximum experience in several aspects of Toxicology. This NIEHS Training grant is designed to train applicants in one of two potential focus areas: Pulmonary Toxicology or Molecular Toxicology. In this selection round, an applicant in the area of Pulmonary Toxicology is being sought. Applicants who wish to pursue research in the areas of **Immunotoxicology**, **Developmental Toxicology**, or **Reproductive Toxicology** secondary to host inhalation exposures to environmental agents/toxicants/pollutants are also highly welcomed.

The selection of the postdoctoral applicant and their career development will utilize a formal process:

Postdoctoral Recruitment Process:

All applicants must complete a standard application that consists of: a full CV; three letters of reference; and, a brief proposal (1-2 pages) that outlines their intended research plan. All inquiries and applications will be forwarded from Ms. Muniz to Dr. Terry Gordon and an Internal Advisory Committee for review.

Postdoctoral Eligibility for Support on Training Grant:

The candidate must be a U.S. citizen or permanent resident (i.e., green card). All applications will be reviewed by a panel that includes: basic scientists; a clinical research scientist; and, the Director of the Department's Graduate Steering Committee. Each panel member will quantitatively score each applicant based on past accomplishments and references, potential for success in the program, dedication to Toxicology research, and the quality of the research proposal. The top scoring applicants will be invited for a personal interview and to give a seminar; a final decision will be based on the interview and seminar.

Career Development of Postdoctoral Trainee:

A major goal of the Training grant's Career Development plan is to assist the postdoctoral trainee in becoming a junior faculty member by entering a research career in Environmental Health, and to gain a broader and more thorough understanding of the field than might otherwise be possible.

The training of postdoctoral trainees will include:

- A formal mentoring committee comprised of NYU faculty members
- A yearly evaluation of the postdoctoral trainee's progress
- Creation of an Individual Development Plan
- Participation in scholarly activities such as research seminars and journal clubs
- Classes in grant writing skills, such as that held annually by the NYUSOM's Sackler Program

Compiled by Haley Neff-LaFord.

ANYTIME you have a new **fully published** article to report, please send it to the coordinator, Haley Neff-LaFord: hnlaford@seagen.com

Asthma, Allergy, Autoimmunity & Hypersensitivity

Pucheu-Haston CM, Copeland LB, Haykal-Coates N and Ward MDW. The effects of pregnancy on the exacerbation and development of maternal allergic respiratory disease. *J Immunotoxicol* 6:276-284, 2009.

vanTriel JJ, Arts JHE, Muijser H and Kuper CF. Allergic inflammation in the upper respiratory tract of the rat upon repeated inhalation exposure to the contact allergen dinitrochlorobenzene (DNCB). *Toxicology* 269:73-80, 2010.

Developmental Immunotoxicology

Hanson ML, Brundage KM, Schafer R, Tou JC and Barnett JB. Prenatal cadmium exposure dysregulates sonic hedgehog and Wnt/b-catenin signaling in the thymus resulting in altered thymocyte development. *TAAP* 242:136-145, 2010.

Pucheu-Haston CM, Copeland LB, Haykal-Coates N and Ward MDW. Maternal respiratory sensitization and gestational allergen exposure does not affect subsequent pup responses to homologous or heterologous allergen. *J Immunotoxicol* 7:57-67, 2010.

Effects: Compounds

Antoine F, Ennaciri J and Girard D. Syk is a novel target of arsenic trioxide (ATO) and is involved in the toxic effect of ATO in human neutrophils. *Toxicol in Vitro* 24:936-941, 2010.

Burchiel SW, Mitchell LA, Lauer FT, Sun X, McDonald JD, Hudson LG and Liu KJ. Immunotoxicity and biodistribution analysis of arsenic trioxide in C57Bl/6 mice following a 2-week inhalation exposure. *TAAP* 241:253-259, 2009.

Gonçalves DM, Chiasson S and Girard D. Activation of human neutrophils by titanium dioxide (TiO₂) nanoparticles. *Toxicol in Vitro* 24:1002-1008, 2010.

Haffor AA. Effect of myrrh (*Commiphora molmol*) on leukocyte levels before and during healing from gastric ulcer or skin injury. *J Immunotoxicol* 7:68-75, 2010.

Fukuyama T, Tajima Y, Ueda H, Hayashi K, Shutoh Y, Harada T and Kosaka T. Apoptosis in immunocytes induced by several types of pesticides. *J Immunotoxicol* 7:39-56, 2010.

Gardner RM, Nyland JF, Evans SL, Wang S, Doyle KM, Crainiceanu CM and Silbergeld EK. Mercury induces an unopposed inflammatory response in human peripheral blood mononuclear cells in vitro. *Environ Health Persp* 117:1932-1938, 2009.

Jankowski MD, Franson JC, Mostl E, Porter WP and Hofmeister EK. Testing independent and interactive effects of corticosterone and synergized resmethrin on the immune response to West Nile virus in chickens. *Toxicology* 269:81-88, 2010.

Kawanai T, Satoh M, Murao K and Oyama Y. Methylmercury elicits intracellular Zn²⁺ release in rat thymocytes: Its relation to methylmercury-induced decrease in cellular thiol content. *Toxicol Lett* 191:231-235, 2009.

Kibakaya EC, Stephen K and Whalen MM. Tetrabromobisphenol A has immunosuppressive effects on human natural killer cells. *J Immunotoxicol* 6:285-292, 2009.

N'jai AU, Larsen M, Shi L, Jefcoate CR and Czuprynski CJ. Bone marrow lymphoid and myeloid progenitor cells are suppressed in 7,12-dimethylbenz(a)anthracene (DMBA) treated mice. *Toxicology* 271:27-35, 2010.

Olea-Herrero N, Vara D, Malagarie-Cazenave S and Díaz-Laviada I. The cannabinoid R(+)-methanandamide induces IL-6 secretion by prostate cancer PC3 cells. *J Immunotoxicol* 6:249-256, 2009.

Santiago-Osorio E, Mora L, Bautista M, Montesinos JJ, Martínez I, Ramos-Mandujano G, Zambrano R, Monroy-García A, Weiss-Steider B, Ledesma-Martínez E and Aguiñiga I. Sodium caseinate induces secretion of macrophage colony-stimulating factor from neutrophils. *Immunobiol* 215:332-339, 2010.

General Immunotoxicology

Frey B, Schildkopf P, Rödel F, Weiss EM, Munoz LE, Martin Herrmann M, Fietkau R and Gaipl US. AnnexinA5 renders dead tumor cells immunogenic—implications for multimodal cancer therapies. *J Immunotoxicol* 6:209-216, 2009.

Hamm S, Rath S, Michel S and Baumgartner R. Cancer immunotherapeutic potential of novel small molecule TLR7 and TLR8 agonists. *J Immunotoxicol* 6:257-265, 2009.

Kelly RJ and Morris JC. Transforming growth factor-beta: A target for cancer therapy. *J Immunotoxicol* 7:15-26, 2010.

Kryukov F, Očadlíková D, Kovářová L, Burešová I, Hájek R and Michálek J. In vitro activation of cytotoxic T-lymphocytes by hTERT-pulsed dendritic cells. *J Immunotoxicol* 6:243-248, 2009.

Mandalari G, Adel-Patient K, Barkholt V, Bublím M, Baro C, Graser G, Gaier S, Ladics GS, Mierzejewska D, Vassilopoulou E, Vissers Y, Zuidmeer L, Rigby NM, Salt L, Deférnez M, Mulholland F, Mackie AM, Wickham MS and Mills ENC. In vitro digestibility of b-casein and b-lactoglobulin under simulated human gastric and duodenal conditions: a multi-laboratory evaluation. *Reg Toxicol Pharmacol* 55:372-381.

Mathesius CA, Barnett JF Jr, Cressman RF, Davis T, Ding J, Finlay C, Ladics GS, Sampson H, Bardina L, Schmidt J, Layton RJ, Zhang JXQ, Carlson G, Ballou S and Delaney B. Safety assessment of a modified acetolactate synthase protein (GM-HRA) in genetically-modified soybeans. *Reg Toxicol Pharmacol* 55:309-320.

Recent Immunotoxicology Publications

Ohayon A, Babichev Y, Pasvolsky R, Dong G, Sztarkier I, Benharroch D, Altman A and Isakov N. Hodgkin's lymphoma cells exhibit high expression levels of the PICOT protein. *J Immunotoxicol* 7:8-14, 2010.

Shichkin VP, Lon AD, Yugrinova LG, Grinevich YA, Belova OB, Berezhnaya NM, Akalovich S, Pashkova O and Voitenok NN. TNF receptor p55 and IL-872 and IL-877 isoforms: blood and urine levels in breast cancer patients. *J Immunotoxicol* 6:235-242, 2009.

Tan HH, Fiel MI, Sun Q, Guo J, Gordon RE, Chen LC, Scott L, Friedman SL, Odin JA and Allina J. Kupffer cell activation by ambient air particulate matter exposure may exacerbate non-alcoholic fatty liver disease. *J Immunotoxicol* 6:266-275, 2009.

Voronov E, Reich E, Dotan S, Dransh P, Cohen I, Huszar M, Fogel M, Kleinman HK, White RM and Ron N. Apte. Effects of IL-1 molecules on growth patterns of 3-MCA-induced cell lines: An interplay between immunogenicity and invasive potential. *J Immunotoxicol* 7:27-38, 2010.

Methods

Boverhof DR, Gollapudi BB, Hotchkiss JA, Osterloh-Quiroz M and Woolhiser MR. A draining lymph node assay (DLNA) for assessing the sensitizing potential of proteins. *Toxicol Lett* 193: 144-151, 2010.

Burleson GR, Burleson F and Dietert RR. The cytotoxic T lymphocyte assay in immunotoxicity testing. *Methods Molec Biol* 598:195-205, 2010.

Dietert RR, Bunn TL and Lee JE. The delayed hypersensitivity type assay using protein and xenogenic cell antigens. *Methods Molec Biol* 598:185-194, 2010.

Dietert RR, Dietert JM and Gavalchin J. Risk of autoimmune disease: challenges in immunotoxicity testing. *Methods Molec Biol* 598:39-51, 2010.

Dietert RR and DeWitt J. Developmental immunotoxicity (DIT): the why, where and how of DIT testing. *Methods Molec Biol* 598:17-25, 2010.

Zhang W, Caspell R, Karulin AY, Ahmad M, Haicheur N, Abdelsalam A, Johannesen K, Vignard V, Dudzik P, Georgakopoulou K, Mihaylova A, Silina K, Aptsiauri N, V. Adams V, Lehmann PV and McArdle S. ELISPOT assays provide reproducible results among different laboratories for T-cell immune monitoring—even in hands of ELISPOT-inexperienced investigators. *J Immunotoxicol* 6:227-234, 2009.

Reviews, Book Chapters, Commentaries

Basketter DA, Broekhuizen C, Fieldsend M, Kirkwood S, Mascarenhas R, Maurer K, Pedersen C, Rodriguez C and Schiff HE. Defining occupational and consumer exposure limits for enzyme protein respiratory allergens under REACH. *Toxicology* 268: 165-170, 2010.

Basketter DA and Kimber I. Updating the skin sensitization in vitro data assessment paradigm in 2009. *J Appl Toxicol* 29: 545-550, 2009.

Dietert RR. Developmental immunotoxicology. In Ballentyne B, Marrs T and Syversen T (Eds). *General and Applied Toxicology* (3rd edition). John Wiley & Sons, Ltd. Chichester, UK. Vol 4:1977-1991, 2009.

Recent Immunotoxicology Publications

- El-Kassar N and Gress RE. An overview of IL-7 biology and its use in immunotherapy. *J Immunotoxicol* 7:1-7, 2010.
- Holt PG, Strickland DH, Bosco A and Jahnsen FL. Chapter 3 – Pathogenic mechanisms of allergic inflammation: atopic asthma as a paradigm. *Adv Immunol* 104:51-113, 2009.
- Kern PS, Gerberick GF, Ryan CA, Kimber I, Aptula A and Basketter DA. Local lymph node data for the evaluation of skin sensitization alternatives: a second compilation. *Dermatitis* 21:8-32, 2010.
- Kimber I, Basketter DA and Dearman RJ. Chemical allergens – what are the issues? *Toxicology* 268:139-142, 2010.
- Ladics GS, Knippels LMJ, Bannon GA, Goodman RE, Penninks AH and Herouet-Guicheney C. Review of animal models designed to predict the potential allergenicity of novel proteins in genetically modified crops. *Reg Toxicol and Pharmacol* 56:212-224, 2010.
- Loveless SE, Api A-M, Crevel RWR, Debruyne E, Gamer A, Jowsey IR, Kern P, Kimber I, Lea L, Lloyd P, Mehmood Z, Steiling W, Woolhiser M and Hennes C. Potency values from the local lymph node assay: application to classification, labeling and risk assessment. *Regul Toxicol and Pharmacol* 56:54-66, 2010.
- Malyguine A, Umansky V and Shurin MR. Cancer Immunotherapy and Immunomonitoring (CITIM): Redefining Cancer Therapy. *J Immunotoxicol* 6:205-208, 2009.
- Pickard C, Louafi F, McGuire C, Lowings K, Kumar P, Cooper H, Dearman RJ, Cumberbatch M, Kimber I, Healy E and Friedmann PS. The cutaneous biochemical redox barrier: a component of the innate immune defenses against sensitization by highly reactive environmental xenobiotics. *J Immunol* 183:7576-7584, 2009.
- Pollard KM, Hultman P, Kono DH. Toxicology of autoimmune diseases. *Chem Res Toxicol* 15:455-66, 2010.
- Pucheu-Haston CM, Copeland LB, Vallanat B, Boykin E and Ward MDW. Biomarkers of acute respiratory allergen exposure: Screening for sensitization potential. *TAAP* 244:144-155, 2010.
- Vannucci L, Stepankova R, Grobarova V, Kozakova H, Rossmann P, Klimesova K, Benson V, Sima P, Fiserova A and Tlaskalova-Hogenova H. Colorectal carcinoma: Importance of colonic environment for anti-cancer response and systemic immunity. *J Immunotoxicol* 6:217-226, 2009.
- Walker M, Makropoulos D, Achuthanandam R and Bugelski PJ. Recent advances in the understanding of drug-mediated infusion reactions and cytokine release syndrome. *Curr Opin Drug Discov Devel* 13:124-135, 2010.