**Immunotoxicology**

**Specialty Section Newsletter**

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**President’s Message**

*Steve Pruett*

As indicated in the report from the Program Committee in this Newsletter, Jeanine and the Committee were successful in recruiting and selecting a number of excellent proposals that have now been favorably received by the SOT Program Committee. As a result, the program at 2008 SOT Meeting promises to be very enjoyable and informative for immunotoxicologists. As usual, there will be something for everyone, from applied to basic and back again.

As an academician, I have enjoyed observing the interactions between colleagues in this specialty section who work for regulatory agencies or industry. I wish the public could see what I have seen. My distinct impression is that all parties are genuinely interested in doing the research appropriately and using the data wisely to best serve human and environmental health.

An ad hoc committee has been formed to address the problems related to the new structure of Study Sections at NIH. The situation has not improved, and Pat Mastin (NIEHS) provided results indicating that the success rate for funding of immunotoxicology projects has been dismal. We are now trying to arrange a conference call with the SOT Task Force working on this issue. We plan to offer any assistance we can to help the Task Force in this important task. Please contact me if you have any ideas, specific concerns, or examples of problems that might help this committee.

A group from our Specialty Section has begun planning a Current Concepts in Toxicology Conference. These conferences are designed to bring scientists together to consider a single issue in a manner that is more thorough and thoughtful than is possible at the Annual Meeting of SOT. I mention this just to remind you that these Conferences can be very useful, and I would encourage you to consider proposing one. Please be aware, however, that the minimum lead-time is at least 6 months, so begin preparing early. The Specialty Sections are responsible for financing these events, and the goal is to make them revenue neutral (registration fees are sufficient to cover the costs). However, SOT will step in if there are unanticipated losses that cannot be covered by the Specialty Section’s budget. Please contact me if you are interested in proposing a CCT.
Finally, I would like to give you updates on two issues that Dr. Cohen emphasized during his Presidency. First, we have not abandoned the idea of seeking contributions from companies to permit the Specialty Section to do even more for students traveling to meetings or to learn new techniques in another lab. However, the recent emphasis by SOT on supporting the SOT Foundation has muddied the waters with regard to whether we will be able to do this. If SOT will permit it, I do plan to pursue it. Second, Mitch did a great deal to encourage interactions between the immunotoxicologists in Japan and Europe with those in the US.

I am pleased to announce two new initiatives to keep the momentum going. The Specialty Section Executive Committee voted to provide airfare for a non-US resident post-doc to attend the annual SOT meeting. Graduate students can already apply for student travel awards, but assistance for post-doc travel would be unique. Look for an announcement in the next newsletter or in a special e-mail regarding the criteria and application procedure for this travel award. The Awards Committee will be developing these soon. Also, the Executive Committee voted to support the travel expenses of a Japanese colleague to attend the SOT meeting this year and speak at our business meeting for about 10 minutes on “Immunotoxicology in Japan”. For now, this is a one time event; we hope to continue the exchanges in the future.

Student and Post-doctoral Report

Submitted by Stacey Anderson, Post-doctoral Representative, and Sheung Ng, Student Representative

Greetings fellow students and post-docs! Not too much has changed since the last newsletter so I just want to remind/update you on a few things. Please continue to watch for information about our meeting place in upcoming communications from the ISS as the national meeting approaches.

I’m still searching for a meeting place for the mixer in Seattle, so if anyone is familiar with the area and has suggestions or recommendations for where the mixer could be, please let me know. Also, any other thoughts on how to increase student/post-doc participation at the mixers would be appreciated. We hope more of you attend future mixers: it is a great way to get to know the other students/post-docs in ISS.

For those of you looking for the most up-to-date information related to SOT, please visit the SOT website for students and post-docs: http://www.toxicology.org/index.asp?navTop=3

This useful website provides information such as online versions of SOT newsletters, highlights of past meetings, SOT forums for interactive discussion and resources for undergrads, graduate students and post-docs. Links are also available for career resources and development services as well as awards and fellowships. Post-doctoral members can also find great resources for scientific growth, networking, and career advancement from the Post-Doctoral Assembly (PDA). Check out the online version of the PDA semi-annual newsletter for more information: http://www.toxicology.org/ai/spd/SOT_PDA_newsletter-spring2007.pdf

Similar information is available for graduate students through the Student Advisory Council (SAC). The SAC aims at addressing the needs of students in the Society and encourages student participation and membership. Please visit the SAC website for more information: http://www.toxicology.org/ai/spd/studentservices.asp#SAC

We are still looking for the next student representative of the ISS. Sheung Ng’s term runs out next year and we are looking for her replacement. All your advisor has to do is send a letter of recommendation to the ISS president that includes verification that he or she can fund your travel to SOT for the next two years. Your term would run from March 2008-March 2010 and you would serve as the student voice on the ISS.

If you have any questions about student representation in the ISS or how the ISS can best serve you as a student of immunotox, please do not hesitate to contact me at sanderson4@cdc.gov or Sheung at ng@env.med.nyu.edu.
Program Committee Update

Submitted by Jean Regal

I know it seems early because we are just half way through 2007 and the program for 2008 has barely been settled. However, we already need to begin working on the Immunotoxicology Specialty Section program proposals for the Baltimore SOT meeting in 2009!


Step 1: Think about the Symposium, Workshop, Roundtable or Continuing Education Course that you always wanted to attend.

Step 2: Sketch out a possible title and/or speakers

Step 3: Contact any member of the Program Committee and have them help you flush out your idea and turn it into a program proposal.

Step 4: Submit your proposal to jregal@d.umn.edu by November 30, 2007

The Immunotoxicology Specialty Section has traditionally sponsored excellent and well-attended programs at the Annual Meeting. The Program Committee comes up with many good ideas year after year, but depends on ALL of the members of the Immunotoxicology Specialty Section to generate ideas for outstanding proposals.

Helpful information

Past Immunotoxicology programs are now listed on our website (http://www.toxicology.org/ISOT/SS/immunotox/Index.html)


Symposia

Cutting-edge science, new areas for toxicologists, new concepts or approaches, new data

♦ 165 minutes or less
♦ Chairperson and 3-4 speakers (~30-35 minutes per speaker)
♦ Summary of symposium by last speaker

Workshop

Emphasis on quality presentation of generally accepted, state-of-the-art knowledge in toxicology

♦ 165 minutes or less
♦ Chairperson and 1-5 speakers

2007-2008 Program Committee

| Jean Regal (Chair) | jregal@d.umn.edu | Lin Mantell | mantelll@stjohns.edu |
| Tony Arulanandam | tonyarul@comcast.net | Prakash Nagarkatti | pnahark@med.sc.edu |
| Sarah Blossom | BlossomSarah@uams.edu | Keiko Nohara | keikon@nies.go.jp |
| Jeanine Bussiere (mandated) | bussierj@amgen.com | Marc Pallardy | Marc.pallardy@u-psud.fr |
| Nikolay Filipov | filipov@cvm.msstate.edu | Steve Pruett (mandated) | Pruett@cvm.msstate.edu |
| Deborah Finco-Kent | Deborah.finco-kent@pfizer.com | Lisa Ryan | Ryan/k@uams.edu |
| Barb Kaplan | bKaplan@msu.edu | Jennifer Schlezinger | jschleyzi@bu.edu |
| Ian Kimber | ian.kimber@syngenta.com | MaryJane Selgrade | Selgrade.maryjane@EPA.gov |
| Raj Krishnaraj | rkrishna@ulc.edu | Lewis Shi | shi@svm.vetmed.wisc.edu |
| David Lawrence | lawrencd@wadsworth.org | Mike Woolhiser | mwoohliser@dow.com |
| Lynne LeSauteur | lynne.lesauter@ca.crl.com | Courtney Sulentic (CE Committee) | courtney.sulentic@wright.edu |
Informal, interactive presentations

Emphasis on discussion

**Roundtable**

Controversial subject matter

- 80 minutes or less
- Chairperson(s) and 2-4 speakers
- Each speaker makes a 5-10 minute statement (Moderator coordinates the comment)
- Comments coordinated by chairperson
- Balance of time for questions and discussion

**Continuing Education Courses**

- Emphasis on quality presentation of generally accepted, state-of-the-art knowledge in toxicology
- CE Courses:
  - 240 minutes or less
  - Chairperson(s) and 3-4 speakers (syllabus and slide presentation)
- Sunrise Mini-Course
  - 60 minutes
  - 1 speaker (syllabus and slide presentation)

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**Regulatory Committee Update**

*Submitted by Wendy Komocsar*

The response period has ended (31-Jul-2007) for the EMEA draft guidance on the Immunogenicity Assessment of Biotechnology-Derived Therapeutic Proteins, (EMEA/CHMP/BMWP/14327/2006). Two of the responding groups included the Immunotoxicology Technical Committee (ILSI-HESI) and BioSafe. Some of the recommendations submitted included:

- The use of a risk-based assessment strategy for decisions related to immunogenicity assessment (similar to US regulators’ strategies already in place)
- Clarification of scope to apply to the nonclinical and clinical assessment of immunogenicity as defined by the detection of anti-drug antibodies (This applies to proteins and polypeptides, as well as their derivatives and products of which they are components.)
- Organization of nonclinical and clinical requirements in separate sections
- Additional information regarding the evaluation of neutralizing antibodies and the application of this data to both nonclinical and clinical studies
- Evaluation of cellular immune responses on a case by case bases, in addition to the standard evaluation of the humoral response
- Assurance of consistency with the Immunogenicity section of ICH S6 Preclinical Safety Evaluation of Biotechnology - Derived Pharmaceuticals (Address those recommendations that differ.)

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**Japanese Society of Immunotoxicology - SOT Immunotoxicology Specialty Section Collaboration**

*Submitted by Kazuichi Nakamura*

In the furtherance of our growing collaboration with the SOT IMTOX SS, the Japanese Society of Immunotoxicology (JSIT) is happy to share with all our most recent Newsletter. While it will be readily apparent that most of the text is in Japanese, there are actually three articles (i.e., "Miscellaneous thoughts on immunotoxicity", "An application of a post-hoc test followed by ANOVA and the protocol of immunotoxicity", and "Life as a post-doc: Similarities and differences between the US and Japan") that are written in both Japanese and English. We will strive to provide versions in both Japanese and English. In the meantime, we hope that this item will at least serve to introduce to all of you some of the current situations and efforts of JSIT.

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**Note:**

Please refer to the JSIT newsletter attached in it’s entirety at the end of this newsletter.
Membership Committee Report

Submitted by George DeGeorge

SOT Immunotoxicology Specialty Section Membership

By Membership Category

- Full: 17%
- Assoc: 15%
- Student: 68%

Jul 2007
Total = 344

Dec 2006
Total = 321

By Organization Category

- Industry: 43%
- Academia: 35%
- Government: 10%
- Consulting: 7%
- Research: 4%
- Other: 1%

Jul 2007

- Industry: 47%
- Academia: 35%
- Government: 11%
- Consulting: 4%
- Research: 2%
- Other: 1%

Dec 2006
SOT Immunotoxicology Specialty

Section Membership (Continued)

By Membership Category

Dec 2005
Total = 349

Dec 2004
Total = 297

By Organization Category

Dec 2005

Current Year (2007)

Highest Degree

Toxicology Diplomates

Note: Members with some dual degrees (MD/PhD, PhD/DVM, etc) are counted twice in the graph.
## Financial Report

### Immunotoxicology Specialty Section
July 2006—June 2007

<table>
<thead>
<tr>
<th>Ordinary Income/Expense</th>
<th>Amount $</th>
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<td>Grants - Food Safety</td>
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<td>Newsletter</td>
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<td>Web Development</td>
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<tr>
<td><strong>Total Expense</strong></td>
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Excess (Deficiency) of Revenue over Expenses  2,687

Net Assets Beginning of Year  15,683

Transfers from General Fund

Net Assets Beginning of Year after Transfers  15,683

Net Assets End of Year  18,370

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**Submitted by**
Helen V. Ratajczak  
Secretary/Treasurer
**IMMUNOTOXICOLOGY**

The Immunotoxicology Specialty Section is a branch of the Society of Toxicology whose members include scientists with training in immunology, toxicology and risk assessment. Our purpose is to promote immunotoxicology as a discipline by: (1) increasing our understanding of the impact that xenobiotics have on the immune system; (2) advocating research into the mechanisms of immunomodulation; and, (3) encouraging the development of new methods and techniques to improve risk assessment. At the national meeting, the Section sponsors symposia, continuing education courses, workshops, and roundtable discussions. Annual meetings are held at the national meeting to discuss specialty section business and program topics for the following year. The Section helps to encourage it’s pre- and postdoctoral students to participate in the scientific program at the Annual Meeting by awarding a prize for best presentation in the field of immunotoxicology. Student input into the Section is also encouraged, and facilitated by an appointed Student Representative that attends Section Officer’s meetings as a full voting member.

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**Financial Report**

**Immunotoxicology Specialty Section**

**July 2005—June 2006**

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<th>Ordinary Income/Expense</th>
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<td><strong>Total Expense</strong></td>
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**Excess (Deficiency) of Revenue over Expenses**

2,489

**Net Assets Beginning of Year**

13,193

**Transfers from General Fund**

—

**Net Assets Beginning of Year after Transfers**

13,193

**Net Assets End of Year**

15,683
You are invited to attend a special conference presented by the Center for Environmental Health Sciences, Health and Human Services and the Centers for Disease Control.

Conference Goals

Biomass from a variety of sources is used for heating and cooking, burned for land use, and serves as fuel for wildfires. In each case, smoke from biomass combustion produces significant levels of criteria pollutants, including ambient particulate matter and a wide variety of volatile organic pollutants. In addition, these pollutants are produced at very high levels in indoor environments, and are consequently unregulated. Since biofuels are relatively inexpensive, resulting smoke exposures tend to have the greatest impacts on individuals at lower socioeconomic levels and in developing countries.

The University of Montana/CDC conference will bring together experts in the chemistry of biomass smoke, field exposure studies, human and animal studies, biomarkers, as well as clinical and basic research investigators to help define our current knowledge in understanding the health effects resulting from smoke exposure and the potential public health implications of those exposures. In addition, the conference will have working sessions in order to use the current information to provide recommendations and prioritization on research gaps and future research directions.

More information at: http://www.umt.edu/ehhs/ibshe_p3.html Email: andrij.holian@umontana.edu
### Tuesday, August 21

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<tbody>
<tr>
<td>7:00</td>
<td>Registration and Continental Breakfast</td>
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<tr>
<td>8:00</td>
<td>Welcome and Introductions - <strong>Andrij Holian</strong>, Mike McGeehin</td>
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<tr>
<td>8:15</td>
<td>The Chemistry of Fresh and Aging Biomass Burning Smoke - Bob Yokelson</td>
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<td>8:45</td>
<td>Contribution of Smoke to Fine Particulate Matter: Development of Smoke Source Profiles and Routine Source Apportionment Tools - Bret Schichtel</td>
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<td>9:15</td>
<td>Georgia Wildfires: Integrating State Public Health into Response - Betsy Kagey</td>
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<tr>
<td>10:00</td>
<td>Break</td>
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<tr>
<td>10:15</td>
<td>Session II: Risk Assessment and Intervention Strategies - <strong>Chair: Tim Larsen</strong></td>
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<tr>
<td>11:00</td>
<td>EPA's Wood Stove Changeout Program - <strong>Amanda Aldridge</strong></td>
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<td>11:30</td>
<td>Tracking Woodstove Changeout Efforts in Libby, MT and Nez Perce Reservation - <strong>Curtis Noonan</strong></td>
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<td>12:00</td>
<td>Woodstove Changeout Results of the Libby, Montana and Nez Perce In-Home PM2.5 Studies - <strong>Tony Ward</strong></td>
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<td>Woodstove Program in British Columbia - <strong>Ryan Allen</strong></td>
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<tr>
<td>1:00</td>
<td>Session III: Health outcomes of air pollution: study design/lessons learned - <strong>Chair: Andrij Holian</strong></td>
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<tr>
<td>1:30</td>
<td>Epidemiological evidence of PM-related health effects - <strong>C. Arden Pope</strong></td>
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<td>2:00</td>
<td>Estimation of health effects: Roles of exposure variation and study design - <strong>Lianne Sheppard</strong></td>
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<tr>
<td>2:30</td>
<td>Lunch</td>
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<tr>
<td>3:00</td>
<td>Session IV: Health Outcomes of Biomass Smoke: Observational studies - <strong>Chair: Maria Morandi</strong></td>
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<tr>
<td>3:30</td>
<td>Observational evidence on biomass smoke health effects - <strong>Sverre Vedal</strong></td>
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<td>4:00</td>
<td>Impact assessment of an improved stove program in Michoacan, Mexico - <strong>Isabelle Romieu</strong></td>
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<tr>
<td>4:30</td>
<td>Break</td>
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<td>5:00</td>
<td>Session IV (cont.): Health Outcomes of Biomass Smoke: Experimental studies - <strong>Chair: Maria Morandi</strong></td>
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<tr>
<td>5:30</td>
<td>Biomass Smoke Experimental Studies in Humans - <strong>John Balmes</strong></td>
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<tr>
<td>6:00</td>
<td>Laboratory Studies of Inhaled Wood Smoke - <strong>Joe Mauderly</strong></td>
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<tr>
<td>6:30</td>
<td>Panel Discussion (Morandi, Vedal, Romieu, Balmes, Mauderly)</td>
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<tr>
<td>7:00</td>
<td>Poster Session</td>
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### Wednesday, August 22

<table>
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<tr>
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<tr>
<td>8:00</td>
<td>Hot Breakfast</td>
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<tr>
<td>8:30</td>
<td>Session V: Biomarkers <strong>Chair: Allison Stock</strong></td>
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<td>9:00</td>
<td>Biomonitoring Principles with Emphasis on Exposure to Biomass Products - <strong>Larry Needham</strong></td>
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<td>9:30</td>
<td>Application of Woodsmoke Exposure biomarkers - <strong>Chris Simpson</strong></td>
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<td>10:00</td>
<td>Biomarkers in Exhaled Air - <strong>Silvia Carraro</strong></td>
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<tr>
<td>10:20</td>
<td>Assign Breakout Groups - Discuss Expectations of Breakup Groups</td>
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<tr>
<td>10:20</td>
<td>Breakout Sessions</td>
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<tr>
<td>11:00</td>
<td>A. Risk assessment, defining the questions (<strong>Tony Ward</strong>, <strong>Maria Morandi</strong>)</td>
</tr>
<tr>
<td>11:15</td>
<td>B. Biomarkers of exposure (<strong>Luke Naether</strong>, <strong>Chris Simpson</strong>)</td>
</tr>
<tr>
<td>11:30</td>
<td>C. Toxicology and animal study design (<strong>Chris Migliaccio</strong>, <strong>Joe Mauderly</strong>)</td>
</tr>
<tr>
<td>11:45</td>
<td>D. Health outcomes measures/study design (<strong>John Balmes</strong>, <strong>Curtis Noonan</strong>)</td>
</tr>
<tr>
<td>12:00</td>
<td>E. Communications Gaps (<strong>Scott Damon</strong>, <strong>John Schumpert</strong>, <strong>Shannon Therriault</strong>)</td>
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<td>12:30</td>
<td>Lunch</td>
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<tr>
<td>13:00</td>
<td>Breakout Session Summary Reports</td>
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<tr>
<td>2:00</td>
<td>Session VI Research Support for Biomass Health Effect Studies</td>
</tr>
<tr>
<td>2:00</td>
<td><strong>Chair: Mike McGeehin</strong></td>
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<td>2:30</td>
<td><strong>Pat Mastin</strong></td>
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<tr>
<td>2:45</td>
<td><strong>Allison Stock</strong></td>
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<tr>
<td>3:00</td>
<td><strong>Amanda Aldridge</strong></td>
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<tr>
<td>3:30</td>
<td>Session VII Research Gaps, Future Directions</td>
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<td>4:00</td>
<td><strong>Andrij Holian</strong></td>
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<tr>
<td>4:15</td>
<td><strong>Paul Garbe</strong></td>
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Pharmaceutical Education Associates Proudly Presents Our

IMMUNOTOXICOLOGY

Innovative Methods and Applications for Risk Assessment in Pharmaceutical Development

September 17 - 18, 2007
The Hilton Alexandria Mark Center
Alexandria, Virginia

Our distinguished speaking faculty includes:

Dr. Gary R. Burleson, Conference Chair
BTR - BURLESON RESEARCH TECHNOLOGY, INC.

Dr. Kenneth L. Hastings
US FOOD AND DRUG ADMINISTRATION

Dr. Rodney R. Dietert
CORNELL UNIVERSITY

Dr. Lynne Lesauter
CHARLES RIVER LABORATORIES

Dr. Elizabeth Gribble
ZYMOCENETICS, INC

Dr. Ian Kimber
SYNGENTA CENTRAL TOXICOLOGY LABORATORY

Judy Van De Water
UNIVERSITY OF CALIFORNIA, DAVIS

The industry’s leading researchers and regulators will discuss:

- ICH S6 Immunotoxicity Guidance
- Developmental Immunotoxicology in Safety Assessment
- Immunogenicity and the Impact on Preclinical Development
- The Fallout of TGN-1412
- Characterization and Classification of Chemical Allergens
- Toxicity as a Result of Immunostimulation by Biologics
- Epidemiologic and Mechanistic Evidence for Immunosuppression-Mediated Cancer
- Immunobiology of Autism
- and much more...

To Register:
Call 800-280-8440 or visit us at www.frallc.com
NONCLINICAL SAFETY EVALUATION OF BIOPHARMACEUTICALS

Monday 1 October
Chairperson: J. Descotes (Lyon Poison Center, France)

10:00 Start of registration and welcome coffee
12:00 Opening lunch
13:15 Welcome to participants
13:30 TGN1412: lessons to be learnt
13:30 Part 1- A case of non-prediction? Ch. Horwath (Archemix, USA)
13:45 Part 2- ABPI/BIA recommendations regarding the MABEL approach. J. Sims (AstraZeneca, UK)
14:00 Part 3- Regulatory consequences guideline on high-risk medicinal products. Ch. Schneider (Paul Erlich Institute, Germany)
14:15 General discussion
14:45 Biopharmaceuticals: current developments and perspectives. Speaker to be confirmed
15:30 Coffee break
16:00 Adverse effects of biopharmaceuticals: from immunopharmacology to the clinic. J. Descotes
16:45 Summerschool in Immunotoxicology Annual PhD Award
17:30 Social event
20:00 Dinner

Tuesday 2 October
Chairpersons: E. Evans (Scherring-Plough, USA) & B. Molinier (Sanofi-Aventis, France)

9:00 Purpose of immunogenicity evaluation in preclinical vs clinical studies. J. Bussiere (Amgen, USA)
9:30 Overview of immunogenicity assays and regulatory aspects. R. Thorpe (National Institute for Biological Standards and Control, UK)
10:00 Practical application of immunogenicity assays. D. Finco-Kent (Pfizer, USA)
10:30 Coffee break
11:45 Risk assessment with case studies:
Preclinical case studies. L. Plitnick (Merck, USA), Curtis Maier (GSK, USA)
Clinical case studies. T. Kawabata (Pfizer, USA), H. Haggerty (Bristol-Myers Squibb, USA)
12:30 Lunch
13:45 HESI-ITC Immunogenicity roundtable: risk assessment and application of the EMEA guideline on the immunogenicity of therapeutic proteins. P. Chamberlain (MDS Pharma, France), H. Schellekens (Utrecht University, the Netherlands), Ch. Schneider, and all the speakers of the day
15:45 Coffee Break
16:15 Social Event and Gala Dinner

SOFITEL Hotel, Lyon (France), 1-3 October 2007
Wednesday 3 October

Chairpersons: J-W. van der Laan (RIVM, The Netherlands) & S. Spanhaak (Johnson & Johnson)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>9:00</td>
<td>General principles and unique (molecule /class-specific) approaches in biopharmaceutical development [ICH6]. J-W Van der Laan</td>
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<tr>
<td>9:45</td>
<td>Chronic toxicology studies for biopharmaceuticals. Speaker to be confirmed</td>
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<tr>
<td>10:30</td>
<td>Coffee break</td>
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<tr>
<td>11:00</td>
<td>Carcinogenicity: the need for in vitro and in vivo studies. M. Oliecwiis (Novo-Nordisk, Denmark)</td>
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<tr>
<td>11:45</td>
<td>Alternatives for safety assessment of biopharmaceuticals (surrogates, transgenics). Speaker to be confirmed</td>
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<tr>
<td>12:30</td>
<td>Lunch</td>
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<tr>
<td>13:30</td>
<td>Use of non-human primates in reproduction toxicology. Speaker to be confirmed</td>
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<tr>
<td>14:15</td>
<td>Safety pharmacology. Speaker to be confirmed</td>
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<tr>
<td>15:00</td>
<td>Risk assessment of monoclonal antibodies. Speaker to be confirmed</td>
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<tr>
<td>15:45</td>
<td>Coffee break</td>
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<tr>
<td>16:15</td>
<td>Roundtable on ICH S6: where does it work and where it does not. J-W. Van der Laan, S. Spanhaak</td>
</tr>
<tr>
<td>17:45</td>
<td>Concluding remarks. J-W. Van der Laan, J. Descotes</td>
</tr>
</tbody>
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Visit our web site: http://www.school-immunotoxicology.org

Recent Advancements in Immunotoxicology

Sponsored by the US Food and Drug Administration

Monday, December 3rd, 2007

9:00 AM – 3:30 PM

US FDA - White Oak Campus
Central Shared Use Building, Room 2031
Silver Spring, MD

This meeting is open to all and there is no fee for registration.

Agenda will be distributed in September.

For more information, please contact
Carmen Booker (carmen.booker@fda.hhs.gov) or Peyton Myers (peyton.myers@fda.hhs.gov).
BRISTOL-MYERS SQUIBB COMPANY
PHARMACEUTICAL RESEARCH INSTITUTE

IMMUNOTOXICOLOGY
DRUG SAFETY EVALUATION
SYRACUSE, NEW YORK

Employment Opportunity

The Immunotoxicology Department within Drug Safety Evaluation at Bristol-Myers Squibb Co. in East Syracuse, New York is seeking an independently-thinking, highly motivated scientist with mechanistic and investigative experience in the assessment of alterations in immune status and function. Placement will be commensurate with the level of experience, but the ideal candidate will have a Ph.D. or equivalent and research background in immunology and/or immunotoxicology/ immunopharmacology and a comprehensive knowledge of animal and human biology/physiology. The candidate should also have effective written and oral communication skills and the ability to manage multiple research activities. This person would be responsible for the scientific and toxicologic evaluation of selected drug candidates, such as immunomodulators and protein therapeutics; design and coordinate mechanistic and toxicology studies to support project and discovery working groups; and develop mechanistic approaches and utilize molecular and emerging technology platforms to address toxicity issues that arise, particularly those associated with the immune system.

Please submit letters of interest as well as academic credentials, relevant scientific publications and laboratory/research experience, and contact information for supporting references via e-mail, fax, or US mail to:

Dr. Helen G. Haggerty and Karen Price
Department of Immunotoxicology
Drug Safety Evaluation
Pharmaceutical Research Institute
Bristol-Myers Squibb Company
6000 Thompson Road, Mailstop J-4
East Syracuse, NY 13057
Fax- 315-432-2295
Email- helen.haggerty@bms.com
and karen.price@bms.com
Compiled by Haley Neff-LaFord.

ANYTIME you have a new publication to report, please send it to the new coordinator, Haley Neff-LaFord: hneff@u.washington.edu.

Asthma, Allergy, Autoimmunity & Hypersensitivity


Effects: Compounds


General Immunotoxicology


Models & Methods


Ladics GS. Primary immune response to sheep red blood cells (SRBC) as the conventional T cell-depende antibody response (TDAR) test. J Immunotoxicol 4:139-142, 2007.


Reviews and Book Chapters:


Letter to the editor:

第14回日本免疫毒性学会学術大会（JSIT 2007）のご案内

会期：平成19年9月20日（木）、21日（金）
会場：兵庫県民会館9F県民ホール
神戸市中央区下山手通4-16-3
TEL：(078) 321-2131 FAX：(078) 321-2138
新幹線「新神戸駅」下車、地下鉄乗換「県庁前」下車1分
JR・阪神「元町」下車徒歩7分
主催：日本免疫毒性学会
共催：日本薬学会、日本トキシコロジー学会、日本環境学会、日本産業衛生学会「アレルギー・免疫毒性研究会」
協賛：日本毒性病理学会
データトキシコロジミクスと免疫毒性
URL：http://med.gakkai.com/jsit14/
年会長：吉田武美（神戸薬科大学）

学術大会第1日目：一般演題、招聘講演「マスト細胞とKIT受容体チロシンキナーゼ（大阪大学名誉教授 北村幸彦）」、特別講演「ドコサペンタエンオメガ3プロテクティブデータベース（TG-GATT）」を用いた肝毒性の予測（同志社女子大学薬学部教授 深谷徹郎）

第2日目：一般演題、シンポジウム「生理性免疫毒性」、招聘講演「Drug-induced allergies (University of Oxford, Prof. Edith Sim)」ワークショップ「免疫毒性評価の問題点と対策・サルを用いた免疫毒性評価・バイオ医薬品の安全性評価」

発表形式：口頭発表
一般演題申込締切日：平成19年7月14日（土）18時
参加費：一般参集6,000円（当8,000円）
学生会員、事前登録3,000円（当日5,000円）
非会員、事前登録6,000円（当日10,000円）
申込締切日：8月31日（金）
懇親会（大会第1日目終了後）：会費8,000円（神戸港ダイナーグループ）
申込締切日：9月12日（水）
問合先：第14回日本免疫毒性学会学術大会・年会事務局
神戸薬科大学薬理学
〒658-8658 神戸市垂水区市立北町1-19-1
TEL & FAX：(078) 441-7577
E-mail：yam@kobcpharma.u.ac.jp

「免疫毒性」雑感
吉田武美（昭和大学薬学部薬物毒性教室）

免疫毒性学会とは、毒と名のつく学会はということもあり、何となく関わりを持ち、今日に至っています。学術に対し何らの貢献もしていないこともあり、ImmunoToxへの投稿を義務づけてくれました。現在に至るまで免疫毒性の分野にはとんと参していないこともあり、標記のような課題で思いつくままに書き連ねることになります。

免疫毒性学会に至るまでの経緯に関しては、これまで多くの方々により語られていますが、時流の速さを感じつつ、振り返ってみたいと思います。小生が「免疫毒性」を専門用語としてまともに自覚したのは、当薬学教室の前田先生岩寺教授が日本毒科学学会、日本学術会議毒科学研究連絡委員会の主催で平成2年11月16日に昭和大学薬学部で開催した第12回日本学術会議毒科学研究連絡シンポジウムでした。そのときは、標的識別
免疫毒性に関して－という内容で、現在の本学会の重鎮の先生方のご講演がありました。その2年後に、黒岩教授が主宰された第19回日本毒科学会学術年会（7月23-24日）に先立つ7月22日に、第14回日本毒科学会サテライトシンポジウムにおいても“免疫毒性”を主題として取上げられました。この2回のシンポジウムの講演内容は、現在に至るまで医薬品などによる各種臓器毒性としての免疫系の役割を考え上げて Lyftな環境に富んでいるものであり、今日に至るまでの発現情報解明のための手法としての意義は大きいと思います。医薬品による免疫毒性関与では、益々発現機序解明のための分子生物学的または分子毒性学的な方向性が求められています。毒科学会のサテライトシンポジウムは、その後の展開はなくなりましたが、これらの経緯を踏まえて第1回の学術年会に際せることになり、その成果に今日の免疫毒性学へと発展してまいりました。

さて、免疫毒性という用語は、本学会や毒性学の領域では当たり前の用語ですが、医学用語辞書やその他の辞書には必ずしも入り込むのであるとは思いないでしょう。免疫毒性は、医薬品ははじめ生活環境中の中種類化合物や生体の免疫系の恒常性を乱し、免疫機能の異常亢進や抑制を引き起こすことによる有害な現象と定義されるのです。しかしここは、一般毒性が発症しない用量での引き起こされる免疫系への作用を主に免疫毒性と判断していただけます。現在はもっと緩やかで、軽度な免疫伝導をも幅広くうるおいの場。生体異物、免疫系自体への影響を与える直接的な免疫毒性としても関連するがそれ以外の組織や器官に障害を与えるアレルギーや自己免疫疾患と区別することもあるが、一般社会では後者のほうがむしろなじみが深いかもしれない。

最近生体異物、神経伝導、内分泌系に作用して関係的にも免疫毒性を発現することもあり、研究内容は一段と幅広く、深いものになってきていることは周知のとおりである。医薬品やその他の生活環境中の化学物質が免疫担当組織や細胞に作用する場合には、その作用機構を解明していくことは、ある意味では取り組みやすいでもある。しかし、多くの医薬品の重大な有害作用の原因としての免疫系との関わりの解明は極めて困難を極めているのが現状である。実際に医薬品についてみると、免疫毒性の発現は有用性として発現する多くの現象は、医薬品の化合物そのものであるかもしれませんが、せめて免疫系内で生する標的性代謝物（活性代謝物）によるものと考えられています。実際にこのような活性代謝物を産生するいわゆる薬物代謝酵素と称される数多くの酵素は、それぞれに遺伝的多型の存在やSNPsによる多様性が次々と明らかにされてきている。現在遺伝的背景としての薬物感受性因子の解析が進んでいるが、それと連動して免疫系関与の因子のも多岐に渡っていることは言うまでもない。このことは、医薬品による有害作用としての免疫系の関与を解明することはいかに困難であるかを物語っている。事実、まれに発生するSJやTENあるいはトログリタゾンによる肝障害などの発現機構は、必ずしも明確ではない。このようなヒトにおける免疫毒性関与の発症機序は、実際に動物実験で再現できない大きな問題である。いずれにしろ、医薬品の使用と免疫系の機能と連動する有害作用の発現は、患者個々の多岐にわたる遺伝的背景、生活習慣さらに病態とその複雑な事象を解明された特徴点で病態していることとは否めない。一方、医薬品として免疫応答組織や細胞に直接作用する免疫抑制薬は、免疫系をやや免疫を抑制する薬剤を目的として病態の他効用を目的として医薬品開発も進められている。また、メチオレキサートやタクロリムスのように、それぞれリウマチやアトピー病で有用に拡大している医薬品もある。

ところで、当務課題であった研究内容を紹介させていただくことにする。当科免疫学系の連携での仕事ということでは、最もまとまったのが、各種のサイトカインの作用を調べることであった。これは有限的ではあるのが、たまたま手近くにサイトカインKGAウマスが入手できたので、皮膚に比較的多量存在するとされているKGAウマスでのアレルギー反応などを調べていたが、必ずしも予定通りの結果は得られなかった。もっとも手懸けの研究内容との関連で方向を変えて、各種サイトカインが、P450など薬物代謝酵素や免疫分解の関与酵素ヘムオキシゲナーゼ1（HO-1）に影響していることが知られていたことから、その面からの検討を進めた。P450やHO-1関連については、サイトカインKGA動物では、必ずしも顕著な変化を見ることがなく、ただIL-6KGAウマスでは薬物による活動誘導が生じないことを見抜かした。さらに、これにサイトカインKGAウマスを用いて、LPSによるHO-1誘導を、主にTNFαが関与し、JNKやP38系の情報伝を介することを（T. Oguro et al., FEBS Lett., 516, 63-66 (2002)、BGCやLPSによるP450のダウンレギュレーションには、IL-6やTNFαが関与していることが、S. Ashino et al., Drug Metab. Dispos., 32, 707-714 (2004)）などを明らかにした。その後ヒト慢性間質炎モデルマウスを用いて実験を進め、IL-6の血中濃度が高レベルであること、肝臓のHO-1誘導が高い状態にあること、P450は減少していることなどが分かり、HO-1誘導にはStat3系の情報伝達系が寄与している。
My miscellaneous thoughts on Immunotoxicology

Takemi Yoshida
Department of Biochemical Toxicology, School of Pharmaceutical Sciences, Showa University

As many members of the Society may recognize, the Japanese Society of Immunotoxicology has been found on the basis of the preceding two important symposia held at the Kanjiyo Memorial Hall in Showa University in November 16, 1990 and June 22, 1992, respectively. I still remember that the some of the members of the Society were the guest speakers at either or both symposia.

Immunotoxicology, although this technical term is very popular for us in toxicology fields, but not in public compared to the words of allergy and autoimmune disease, is an important research area with respect to the effects of pharmaceuticals and environmental chemicals on immune systems. These chemicals produce direct or indirect toxicity on immune tissues and cells. In case of drug-induced immunological adverse effects, the drug may change its chemical structure by catalyzing so-called drug-metabolizing enzymes and the producing reactive metabolite may bind to proteins, and acquire immunogenicity. However, the detailed mechanisms of drug induced autoimmune diseases, such as SJS TEN and Troglitzazone-induced hepatotoxicity, still remains to be investigated. Because of wide variety differences in genetic backgrounds and presence of SNPs in drug-metabolizing enzymes and immune systems, outcome of idiosyncratic drug toxicity is hardly predictable, when patients take prescribed drugs or OTC drugs. The immunotoxicology-related worst events occurred when six healthy volunteers received a dose of TGN1412. In all volunteers, cytokine-release syndrome developed, including multiorgan failure. Mechanisms of such cytokine storm should be clarified in details.

By the way, we have been investigating the effects of cytokines on hepatic drug- and heme-metabolizing enzymes by using cytokine KO mice. We have reported the following findings to date: 1) LPS-mediated induction of hemeoxygenase-1 (HO-1) is involved in TNF α through JNK and NFκB pathways; 2) BCR and LPS-mediated F450 downregulation is involved in IL-6 and/or TNF α;
human chronic arthritis model mice, there were higher
serum IL-6 concentration, the decreased P450 content
and the increased HO-1 and metallothionein(Mt) levels
in the liver. We also found that the induction of HO-1 in
this model mouse liver is signal transduced by Stat
pathway. All of these events occurred in chronic arthritis model
mice are almost completely returned to normal levels by
the i.v. injection of IL-6 neutralized antibody. The changes in
circulating cytokine levels may affect on drug-
and home metabolizing enzymes, thus may lead to changes in
pharmacokinetics of the administered drugs in infectious
and inflammatory diseases. We are currently expanding
our research work to Nr4zf-Kras1 Kon mice Nr4zf-Kras1
system is a main regulatory machinery of HO-1 induction
and other stress responsive enzymes and proteins. Besides,
HO-1 and it enzymatic products, biliverdin (bilirubin) and
carbon monoxide has been shown to play important roles
as an antioxidant and anti-inflammatory effect and immune
regulation, respectively. Thus, our current study seems
something to relate to immunotoxicology.

The concept and possible mechanisms of
immunotoxicology should be learned much by pharmacists
graduating from 6-year education system, starting from
last year.

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ImmunoTox Letter

Immunotoxicity of the Procollagen and
Statistical Analysis on the Related Phenomena

Yoshitaka Ozawa
(Northwestern University, Department of Pharmacology)

Immunotoxicity is the phenomenon that occurs when
immunologic re-activity is enhanced and the body
responds to a stimulus. It is known that immunotoxicity
occurs in the liver, kidneys, and other organs of the body.
When immunotoxicity occurs, the body's immune system
reacts to a stimulus and the body's response is enhanced.
In this study, we investigated the immunotoxicity of the
proteins in mice and found that the proteins in the liver
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Immunotoxicity in the liver is a phenomenon that occurs
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Immunotoxicity of the Procollagen and
Statistical Analysis on the Related Phenomena

Yoshitaka Ozawa
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Immunotoxicity is the phenomenon that occurs when
immunologic re-activity is enhanced and the body
responds to a stimulus. It is known that immunotoxicity
occurs in the liver, kidneys, and other organs of the body.
When immunotoxicity occurs, the body's immune system
reacts to a stimulus and the body's response is enhanced.
In this study, we investigated the immunotoxicity of the
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法等があります。統計学の専門書では、細かい数式は省きますが、４群以上の場合には第一種の過誤を5％以下の抑えきれないので、これらの方法は使用してはならな
い、という説明があります（永田と吉田、1997）。一方、
同じ本に、無毒性量が「無疫群と比較したときに統計
的検定で有意差のない用薬レベル」と考えられている場
合、多重比較法は通常の検定よりも検出力が低くなって
いるから、毒性を見落とす確率が大きくなり、無毒性量
を多重比較法を用いて定めるというやり方は正しくない、
とあります。厳密に統計学的に正しい方法を用いると
検出力が低くなるのはやむを得ないというところなので
しょう。実際の免疫毒性を初めとするプロトコールで行っ
た結果に統計学的手法を適用する場合、若干の統計学的
な考えと、どのように一定の適合性を求めるかが問題に
なると思います。

他のpost hoc test、例えばDunnettの方法は対照群との
比較しか出来ないので、不満が残るし、統計学的には問
題がないと考えられるTukey-Kramerの方法では検出力
に不安が残ることになります。更に保守的なScheffeの方
法では検出力の割合のために、動物試験で有意差が出る
のは極めて限られた場合に限ってしまいます。

現時点では、まだ統一見解はないと考えています。一
つの考え方として、ある化学物質について、一定のレベ
ルで実際に毒性があるものを見落とすのが大きな問題であ
る可能性がある場合、検出力が大きく多重比較法で行っ
ても良いのではないか、ということがあります。また国
内毒性学会の統計処理サービスのブースなどでもディス
カッションした際に、それぞれの毒性学者が、それぞれ
の多重比較法の長所・欠点（検出力や甘さ）や適用条件
を理解した上で行えば良いのではないか、という意見が
ありました。

難しい数式を別として、毒性学の研究者の間でそれぞ
れのpost hoc testについて一定の理解を進める必要はあ
ると思います。今後は私自身は統計学の専門家ではない
ので、多重比較法の新たな発展、見解を期待したいとこ
ろです。

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Life as a Post-Doc: Similarities and Differences between the US and Japan
Contributed by Castle J. Funatake, Ph.D.
(Postdoctoral Scholar, University of California, San Diego, Department of Medicine and Cancer Center, San Diego, California, USA)

I have had the great pleasure of experiencing life and research in both the US and Japan. From September 2006 through February 2007, I was honored to work in the laboratory of Dr. Keiko Nohara at the National Institute for Environmental Studies in Tsukuba, Japan (Photo 2). Since then, I have taken a postdoctoral position at UCSD in the Moores Cancer Center where I am continuing to study how T cell responses can be perturbed, but now it is the microenvironment of the tumor instead of environmental contaminants that are the focus of my research efforts.

Post-doctoral Experience: Japan

I am very grateful to the efforts of Dr. Nohara that gave me the opportunity to come to Japan and work in her laboratory. I had no idea what to expect when I de-boarded my plane and arrived at her laboratory on a hot and humid day early in September of last year. I was pleasantly surprised to see that it was not so different from the laboratories at home. Even more reassuring was the fact that everyone dressed about the same, too — hooray for blue jeans! I started to work the very next day. We were expected to start sharply at 9:00 AM and the researchers would often work 12 hours or more. I was not shocked by the long hours and I soon found myself staying late, too, but starting promptly at 9:00 AM was a bit of a struggle for me. In the US, it has been my experience that 9:00 AM is more of a "guideline" than a strict start time. I believe that this stems from the fact that the average workday in the US is around 8-10 hours so if you start late, you stay late and it all works out in the end. Day-to-day events in the lab were not different from the US, but what made these tasks more difficult for me was the fact that nearly everything was written and labeled in Japanese, and I cannot read Japanese. Thankfully, everyone in the lab was extremely patient with me, and we managed to get translations for everything I needed. Each of us had regular meetings with Dr. Nohara to discuss our results and to plan for the next experiment. We had weekly journal clubs that were not unlike those in the US, except that they were given in Japanese. Journal clubs were a great challenge for me, but also a great learning experience for listening comprehension skills. When it was my turn to present, I presented in English, so I hope that the others felt that it was an equally good opportunity to practice listening to and speaking in English! Aside from these language barriers, I believe that the similarities between Japanese and American laboratories far outnumber the differences, and the consistency between them made my transition into Dr. Nohara's laboratory relatively easy.

Life in Japan: the Everyday to the Exotic

For the first few weeks, I was completely overwhelmed and in a state of culture shock. Everyday things like grocery shopping, watching television and traveling around the city seemed to take every ounce of mental
strength just to cope. But eventually I found a routine, and an English-language news broadcast, and I settled in. In Tsukuba, I got around the city by bike which was very easy thanks to the fact that the city is totally flat. But I cannot deny the fact that I did get lost one night on my way home from work in search of a convenience store that I never did find. It was scary since there were no people out that late, no people to ask for directions, but thanks to some dumb luck I eventually found my way home. Of course, I never again went looking for anything after dark if I did not know exactly where it was. To a newcomer, the train system in and around the Tokyo metro area can be completely overwhelming. I was certainly one of those people, and I was in Japan for almost three weeks before I even got on a train. But, after overcoming my intense fear of the complexity of the train and subway system in Tokyo, I came to love its efficiency and promptness — you really can set your watch by the trains!

Although we worked long days and long weeks, I was fortunate that there were many national holidays that gave me extra time to travel and see Japan. When I only had one day, I went to Shinjuku for shopping. I went to Shinjuku for shopping a lot. I think perhaps I might have gone to Shinjuku too much because the graduate students would ask what I had done for the weekend and when I would sheepishly grin at them in reply, they would know I had gone to shop in Shinjuku. When I had more time, I would travel farther and spend more time in places. I visited Tokyo Tower (Photo 3), the Imperial Palace Eastern Gardens, Tokyo Daijingu, Zōjō-ji Temple, and Yoyogi Park. I went to Asakusa, Mito, and Nikko. I hiked around Tsukuba-san, I tried my hand at imohori (Photo 4), I saw the ocean near Kamogawa, and I went snowboarding at Madarao in Nagano. I saw kabuki and rakugo shows. I saw Fuji-san in December, the snow festival in Sapporo (Photo 5), and toured the Tsukiji fish market one cold and early morning (Photo 6). Everywhere I went, I was amazed by the unique beauty of Japan, the amazing juxtaposition of modern and traditional, the efficiency with which they filled the space in the great metropolitan area of Tokyo.

Graduate school and post-doctoral life in the US: Oregon State University and UCSD

I attended graduate school at Oregon State University (OSU) in the Department of Environmental and Molecular Toxicology. The program varies depending on the specialization that you choose, but on average, it takes
five years to get a Ph.D. Because the students who join OSU’s program come from a diverse background, the first two years are heavily focused on classes to give everyone a solid education in the basics of toxicology. At the same time, the program at OSU is also very self-guided because once I had finished the core classes I was given a lot of freedom to choose which additional classes I wanted to take to complement my research. Once I had completed my coursework, there was a qualifying exam. The qualifying exam was possibly the most difficult exam I had ever taken and involved both an oral presentation and written exam in the form of a grant proposal. After passing the qualifying exam, the rest of my time was dedicated to research, writing papers, and convincing my committee that I was ready to graduate. The hours were long. I worked on weekends, and my lab did not even have windows so sometimes the only daylight I saw was if I left early enough to see it on my way home. But in the end, it was worth it because I loved my project and I knew I had really earned my Ph.D.

I started my post-doc position at UCSD at the beginning of April, just two short months ago. Life as a post-doc in the US is not so different from Japan. I have regular meetings with the PI (principal investigator) to discuss data and future experiments. As in Japan, there is a weekly journal club, but we also have lab meetings every week where everyone gets a chance to discuss their data. In addition, there are departmental and institutional seminars that can be attended on a weekly basis. My workday averages 10 hours long, but some days are longer or shorter depending on what I need to do. As far as the scientific endeavors go, life as a post-doc in the US is not so different from Japan. From a more social aspect, the environment in the laboratory is, I think, less formal than in Japan. PIs are addressed by their first name in most labs, and the rest of us — from technician to graduate student to post-doc — are like a family. There are many lab outings for lunch, sporting events, and beach parties. We work hard together, but we play hard together, too.

Science, Life, and Gratitude

I have always known that I was meant to be a scientist. I love the thrill of a new discovery and doing something that no one else has done. But science would not be as much fun if there were not great people with whom to share it. I have been fortunate in that way — every lab I have been in has been like a family. And working with Dr. Nohara and her group in Japan was like being an exchange student and they were my host family. It was an incredible, once-in-a-lifetime experience and I cannot begin to say how grateful I am. I hope that one day, when I have a lab of my own, that I am able to return the favor. Such an exchange of scientific ideas and cultures is an invaluable resource that can only lead to certain success!
事務局移転についてのお知らせ

長らく日本免疫毒性学会事務局としてご尽力いただきました自治医科大学 進山不二雄先生から、平成19年4月1日を持って以来、事務局を移管されました川崎医科大学衛生学 大槻剛巳敬にております。敬礼ではありますが、本学会の事務局として、本学会の今後の更なる発展に貢献できるようお願いしておりますので、何卒よろしくお願い申し上げます。

今回の事務局移転後の整備も整わないまま、新メールリスト（ML）の立ち上げや会費請求などの事務局ワークを行わなければならない、いろいろと不備が生じまして、会員の皆様には多大のご迷惑をおかけいたしました。この場をお借りいたいと申しまして、陳謝いたしますと共に、今後とも何卒よろしくご協力の程、お願い申し上げます。

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第13回日本免疫毒性学会学術大会
アンケート結果

1. 第13回日本免疫毒性学会学術大会の発表に関する感想
   ■演題数がもう少し多いと良いと思った。コンピュータ環境が充実していた。
   ■もう少し発表者が落ち着いて発表さればよかったと思う。
   ■活発な討論がされていて、目的の達成になりそうな演題が多く、有意義であった。
   ■潮勢に合致した内容だと思う。
   ■発表時間の後のディスカッションが比較的長くて良いと思います。
   ■演題が少なくて寂しいですが...プロセッパーはきれいでしたし、見やすいでした。ポスター展示はスペースが狭く、少し座長・議長の話が聞きづらかった。
   ■スケジュールはややタイトでしたが、最近の話題・動向も盛り込まれていて必要としていた情報がきちんと得られたと思います。
   ■想像していたより良い。
   ■免疫毒性ガイドラインについてQ&A等もあり参考になった。
   ■免疫毒性試験に関するWSは業務に役立ちます。
   ■良
   ■内容も新しく、新規情報を吸収され、有意義な会であった。
   ■発表論文は大変レベルが高く、興味深いものが多くかったと思います。ペーパーにして公表していただきたい。
   ■学術的なレベルが高く、毎年教えられるところが大きそうだ。
   ■スムーズに発表できました。
   ■有益な計画ができた。

2. 第13回日本免疫毒性学会学術大会の運営に関するご感想
   ■事前に何回かメールをいただいたのがうれしかった。
   ■会場が良かった。懇親会のオープニングに感動した。
   ■楽しかったです。
   ■発表会場、懇親会会場ともにゆったりとしていて、なごやかで雰囲気の中でもよく運営されてきたと思われる。
   ■スムーズで進行であり、タイムスケジュールも良かったと思います。
   ■非常に充実していました。
   ■運営の方はたいへんよくやってくださいました。
■会場も立派です。懇親会もアットホームな雰囲気があり、大変楽しめました。強風も春と同じ休憩時間を採用しなかったようです。ありがとうございました。
■時間の遅れがほとんどなく、進行が非常によく管理されていてと思います。
■flexibilityもあり良い。
■1）質問者は予め名前を書く必要です。飲食の休憩はどこまでか…これでAir dryのseasonなのでペットボトルは可としては…（論識的に云えば可と思いますが…） 3）Poster 開きにくいからばかりマイクが必要。広いで両サイドのAとBを離して。
■関係者の運営上の熱意が感じられた。
■開催時期が遅くに重なり、観光でできておりが多かったです。Webやメールでのエントリーができたら良かったです。（なかなか参加費の値込みに行けなかったので…）
■良
■スムーズな運営に心掛けられ、気持ちのよい大会でした。
■運営が大変頑張られ、貴重な一つの魅力も楽しみのでした。天気が晴れたのはラッキーでした。
■総会が評議委員会を兼ねておりましたが、普面は評議委員会を別に設け、決定事項を総会にかけるものと思います。恐らく総会を欠席する場合の委任状はとられなかったのでしょうか。
■速達会場であり、運営も予定どおりの時間に実施され非常に順調な会であった。
■スムーズでした。
■もう少し前を持って情報発信してほしい。

4. 日本免疫毒性学会の全体的な活動に対するご意見
■ホームページ、ニュースリリースの充実と活用
■メール、HPの充実を。
■学会のメールサービスを充実させて、Immunotoxicology Letterが発行される年に、学会の予告など会員への情報提供をお願いしたい。
■免疫毒性に関する実験などの技術トランスファーなども行うべきだ。
■予研医学懇の学会にも共通する事であるが、市民が知っているべき知見について発信、啓発する活動も将来に必要でしょう。
■小さいながらがんらのために会員を増やして下さい。
■TNG1412のような臨床試験事例に対する免疫毒性学的なアプローチを試みるような活動はむずかしいですね。
■JSITが中心になって、より具体的的な免疫毒性ガイドラインの実施例などを提供してほしい。
■以前（研究会？の頃か不明）実施されてきた共同研究を続ける予定はないのですか？
■産・官・学が一緒にして情報交換ができる場として必要な学会と思う。
■ホームページの改編などの折にはe-mailで会員に連絡してほしい。
■社会的な認知度が未だ低いと思う。
編集後記

ImmuNoTox Letterでは前号で発行された掲載を開始しましたが、本号ではアメリカから来日し国立環境研究所で免疫毒性研究に従事されておりますDr. Penatake (University of California) から英文の原稿が寄せられました。また、6月1日よりニューアルされた日本免疫毒性学会のホームページにおいても英文版が追加されております。さらに、本年9月に神戸にて開催される第14回日本免疫毒性学会学術大会では、米国トキシコロジー学会免疫毒性専門部会との定期交流の一環として、同部会のメンバーであるDr. Hastings (FTDA) およびProf. Dieter (Cornell University) による免疫毒性に関する講演が予定されております。このように、日本免疫毒性学会は免疫毒性研究の国際化と発展に向けて今後も様々な機会を講じていきたいと考えております。会員の皆様のご理解とご協力をお願い申し上げます。

（N.T.記）