

**English pages**

**The 15th Annual Meeting of the  
Japanese Society of Immunotoxicology  
(JSIT2008)**

September 11-12, 2008

Tower Hall Funabori, Edogawa, Tokyo, Japan

TEL : 03-5676-2211 FAX : 03-5676-2501

Organizing Committee of the 15th Annual Meeting of  
JSIT

President: Jun-ichi Sawada, National Institute of  
Health Sciences

Secretary General: Reiko Teshima, National Institute  
of Health Sciences

Mail Address: jsit2008@nihs.go.jp

URL: <http://jsit2008.umin.ne.jp/>

Program (tentative schedule)

September 11

9:00 Registration

10:00 Opening Remark

10:05-10:45 Keynote Lecture "Genetic polymorphisms  
and myelotoxicity of anti-cancer drugs"

Dr. Jun-ichi Sawada, National Institute of  
Health Sciences

10:50-11:35 Oral Presentations

11:40-12:20 General Assembly

12:30-13:15 Luncheon Seminar (Charles River  
Laboratories) (2F Zui-un)

13:25-14:55 Oral Presentations

15:00-17:00 Symposium "Immunotoxicity of nanoparticles"  
(Organized by Drs. T. Otsuki, S. Hirano and H.  
Fujimaki)

(1) Measures to evaluate the health effects  
of manufactured nanomaterials (Dr. Akihiko  
Hirose, National Institute of Health Sciences)

(2) The importance of characterization for  
nanoparticles and its pulmonary effects in rats.  
(Dr. Akira Ogami, University of Occupational  
and Environmental Health)

(3) Synergistic effects of nanoparticles on

pathological respiratory/vascular conditions  
(Drs. Ken-ichiro Inoue, Rie Yanagisawa, Eiko  
Koike, Hirohisa Takano, National Institute for  
Environmental Studies)

(4) Skin exposure and skin penetration of  
nanomaterials: prediction of their possibilities  
(Prof. Kenji Sugibayashi, Josei University)

17:05-18:05 Invited Plenary Lecture

"Immunotoxicology of innate immunity"

Prof. Stephen B. Pruetz, College of Veterinary  
Medicine, Mississippi State University, USA

18:30-20:30 Reception (2F Hou-rai)

September 12

8:40 Registration

9:10-11:35 Oral presentations

10:00-12:00 Symposium "Gut-associated lymphoid  
tissues and their regulations"

(Organized by Drs. R. Teshima and Y. Kanazawa)

(1) Regulation of gut immunity by retinoids (Dr.  
Makoto Iwata, Tokushima Bunri University)

(2) Intestinal immunity-mediated allergy :  
establishment of murine food allergy model (Dr.  
Shindo, Hatano Laboratory, Food and Drug  
Safety Center)

(3) Immunomodulation by probiotic lactobacilli  
through regulating functions of macrophages  
(Dr. Kan Sida, Yakuruto Honnsha)

(4) Mucosal immune dysfunction by the  
trichothecene mycotoxins (Prof. Pestka,  
Michigan State University)

12:10-12:55 Luncheon Seminar (Huntingdon Life  
Sciences) (2F Zui-un)

13:05-13:50 Oral Presentations

13:55-14:35 Poster Discussion (4F Seminar Room)

14:40-15:25 Master's Lecture "Immunotoxicogenomics  
of environmental chemicals" (Sep. 12)

Dr. Keiko Nohara, National Institute of  
Environmental Studies, Japan

15:30-17:30 Workshop "Secondary immunomodulatory  
effects and allergenicity of pharmaceuticals"

(Organized by Drs. N. Tutui and S. Hisada)

(1) Immunomodulatory effect of PPAR agonists  
(Dr. Shigeharu Ueki, University of Akita)

(2) Immunomodulatory effect of dopamice (Dr. Kazuhisa Nakano, University of Occupational and Environmental Health)

(3) Validation of non-RI LLNA method -Testing method- (Dr. Hajime Kojima, National Institute of Health Sciences)

(4) Validation of non-RI LLNA method -Data analysis- (Dr. Takashi Omori, Kyoto University School of Public Health)

(5) Report on ICCVAM LLNA peer review (Prof. Takahiko Yoshida, Asahikawa Medical College)

17:30-17:35 Awards Ceremony

17:35-17:40 Closing Remark

**A message from the  
former President of JSIT  
– Expectations for New Research Trends  
in Immunotoxicology**

Motoyasu OHSAWA

Teikyo University and Hatano Research Institute, Food and Drug  
Safety Center, Japan

In April, 2002, I succeeded Prof. Hiroshi Nagura, the first President, to serve as President of the Japanese Society of Immunotoxicology (JSIT). It has since passed six years for the two terms of the duty, while I had been pushed to manage the Society. Now I feel ease at passing baton to new President Dr. Jun-ichi Sawada, and also feel sorry I could have contributed more to the Society.

As reported already at the Annual Meeting JSIT2007 (Kobe), during last terms of duty, the Society has been managed under the following policies: 1) to form the firm Society system, 2) to communicate open with members, and 3) to promote international collaboration.

For the first policy, according to proposal by the working committee, the councillorship was introduced in addition to the Directorate, to activate the Society. Although complex system is less favorable to not a big Society, the councillorship would be essential for keeping and refreshing activities. It is further desired to encourage turnover among members, Councillors and Directors, and active commitment by Councillors to the Society.

For the second policy it was undertaken to communicate

with members as frequently and soon as possible. In addition to the member survey done by Director-Information, it was planned to set up the homepage of JSIT and complete member's e-mail list for close communication. The electronic formats were established after many efforts of successive Secretary-Generals. Now we can see the ImmunoTox Letter on the homepage and down-load its back-number. This makes it easy to send information of JSIT to members and to communicate each other among members. However, it is sorry that the Society budget turned tight with more expense for the homepage beyond the expected. Then I would like to ask members for no delay of membership renewal.

The third policy is that the JSIT takes active part for international collaboration in the research of immunotoxicology. Prior to this action plan a working group (project leader: Dr. Sawada) was organized for making ICH guidance of immunotoxicology. At ICH conference or else JSIT members of the group took active part for preparing the guidance. Moreover, the JSIT working group for the future vision also suggested promoting international exchange of researchers. It was necessary for the purpose to open English homepage of JSIT, and it is realized now. Since JSIT2005 meeting (Tokyo) researchers have been exchanged at each Annual Meeting between JSIT and Immunotoxicology Specialty Session (Director: Prof. Pruet) of Society of Toxicology (SOT), USA. International communication has been rapidly activated, and JSIT comes to mediate international research collaboration. It is further desired to communicate closely with immunotoxicologists in other countries, in particular Asian countries.

Thus we are having most of results expected for the policies. After now it is further expected that JSIT may improve academic status on such basis of the Society.

There are many new challenges in immunotoxicology: developments of more efficient and reliable assay systems (e.g. in vitro test system, high-throughput screening, etc.), concept forming of tailor-made immunotoxicology for high-risk population, establishment of safety evaluation for bioproducts (biologicals, biotechnology-derived foods, biotechnology-derived pollutants, etc.) and for high-tech products (nano-tech products, new materials,

and electromagnetic waves, etc.), and elucidation of risk factors in increasing allergic and autoimmune diseases and improvement of preventive and therapeutic methods against the diseases, and so on. JSIT may be greatly expected to address these challenges. I really thank all of members for much collaboration, feeling happy that I could do a main part of my duties and pass the baton toward new progress in immunotoxicology with expectations to the Society.

### Greeting from the Executive President

Jun-ichi Sawada  
Executive President

The Japanese Society of Immunotoxicology (JSIT) was founded in 1994 as a small researcher's society. We appreciate much effort made by the former Presidents, Drs. Hiroshi Nagura and Motoyasu Ohsawa to establish and expand the Society. The aims of the Society, to educate young immunotoxicologists, to release the newest immunotoxicological information to the public, to facilitate cooperations among immunotoxicologists in different fields, and to contribute to the development of safer drugs and chemicals, are still valid even after fourteen years.

As the immunotoxicology field has expanded from the classical immunotoxicity (immunosuppression) to unintended immunoenhancement (or immunomodulation) including autoimmunity and chemical and food allergy, our Society has been more interdisciplinary. The topics or keywords in current toxicology include "ecological" toxicity, "high-risk group", newly developed materials like "nanoparticles", and new technologies like "omics" and "epigenetics". These also apply to immunotoxicology, and we must challenge these new aspects. In this point, the role of the Society as a platform for interdisciplinary communications becomes more important.

Finally, from an international point of view, the Society would promote cooperations with foreign immunotoxicologists, including Asian researchers.

### An article of request

#### Atopy and DEP

Masaharu Muranaka, MD<sup>1</sup>,

Shuji Suzuki, MD<sup>2</sup>,

Masao Yamaguchi, MD<sup>3</sup>

<sup>1</sup>Yugawara Kosei-Nenkin Hospital

<sup>2</sup>Takashimaya Clinic

<sup>3</sup>Department of Allergy and Rheumatology, University of Tokyo  
Graduate School of Medicine

Through long-term studies on the immediate type drug allergy, the author realized importance of two factors other than atopic disposition for the IgE antibody production. One was the route of the antigen to enter into the body, and another was the role of substances with adjuvant activities. Intramuscular injection of 20 units of ACTH-Z preparation at weekly intervals produced IgE antibody even in patients with non-atopic asthma and those with rheumatoid arthritis. Mice models using alum gel or activated carbon as an adjuvant were established, in which case some commercial penicillin preparations could elicit passive cutaneous anaphylactic (PCA) reactions.

Diesel-exhaust particulates (DEP) are thought to be akin to activated carbon since both have huge surface area. Adjuvant activity of DEP was ascertained for the production of IgE against the Major Antigen of Japanese Cedar Pollen (JCPA) in this mice model. It was confirmed that DEP inoculated by the intranasal route had an adjuvant activity for IgE antibody production in mice. This confirmation has contributed to explain the reason why the rate of Japanese Cedar pollinosis, pure IgE dependent allergic disease, increases rapidly in Japan to the levels far beyond that of atopic disposition.

**Young power for immunotoxicological research**

**An innate immunity-based approach  
for examining immunotoxicity  
-Bacteriology has led me to the field  
of immunotoxicology-**

Kei-ichi Sugiyama, Ph. D.

Senior Researcher

Division of Microbiology, National Institute of Health Sciences

My Ph. D. degree was obtained in the field of stress response of de novo glutathione synthesis in budding yeast from Kyoto University in 2000. Since then, I worked as a researcher at a pharmaceutical company to develop a novel method for screening drug. At present, I have been on Division of Microbiology, National Institute of Health Sciences. In this institute, I am researching effects of mycotoxins which are fungal toxins on innate immunity. My scientific field has included bacteriology since receiving my Ph. D., which led me to participate in immunotoxicological research and presented a lot of exciting new science to me. Hence, I would like to continue innate immunity-based explorations into mechanisms of immunotoxicity, and then believe that my research can make a contribution to this society.