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## The 4<sup>th</sup> International TEA Conference ILSI Japan Session

The 4<sup>th</sup> International Conference on O-CHA (Tea) Culture and Science (ICOS 2010) was held on from October 26 to 28, 2010 at at Conversion Tour Center [GRANSHIP Medium Hall], 11F Seminar Hall Wind, Shizuoka city. In this event ILSI Japan Session: Tea of the World and Activity of the ILSI Japan was taken place on October 27 (Wednesday) 16.00-18.00. 4 speakers were invited and around 200 audiences participated with an animated discussion.

### Program

- 16:15-16:45 Dr. Yukiko Nakanishi (Koshien University)  
"Contribution to International Society through Project SWAN and IDEA in Asian Developing Countries" (Chair Person Yukiko Nakanishi, Vice Chair Person, Masayuki Suzuki)
- 16:45-17:15 Mr. Susumu Oishi (Kao Corporation) (Tea Research Committee)  
"On the Data Bank of the Analysis of Tea Bush from Around the World"
- 17:15-17:45 Dr. Timothy Bond (James Finlay Inc.)  
"Global Tea Extracts: Production to Consumption"
- 17:45-18:15 Dr. Zeno Apostolides (South Africa)  
Dept of Biochemistry, Faculty of Natural and Agricultural Science, University of Pretoria, South Africa "Genetic Markers for Drought Tolerance in *Camellia sinensis* Genotypes"

### Lecture 1: By Dr. Yukiko Nakanishi

#### "Contribution to International Society through Project SWAN and IDEA in Asian Developing Countries"

In order to secure safe water for farming villages in northern Vietnam, where public water supply is not expected for the foreseeable future, ILSI Japan CHP is implementing Project SWAN to improve awareness and knowledge of public health, hygiene and nutrition and establish a safe water supply, with on the participation of local residents. On the other hand, in developing Asian countries where micronutrient deficiencies are serious public health issue, iron-deficiency anemia is the serious health problem. Project IDEA is being carried out in order to help prevent iron-deficiency anemia, by supplying iron through daily meals.

### Lecture 2: By Mr. Susumu Oishi (Tea Research Committee)

#### "On the Data Bank of the Analysis of Tea Bush from Around the World"

Samples of tea leaves were collected from representative tea growing areas around the world, and their chemical components have analyzed with a standardized analytical method. We have found a vast variation of chemical components in catechin content, caffeine content, theanine content. In catechin composition, there seem to be two groups. One group where total catechins increase by the increase in gallated catechins, and another group where total catechins increase without the increase in gallated catechins. The tea leaves in the world have differences in chemical components in each region. This fact shows the possibility of developing more characteristic tea products for respective regions.

### Lecture 3: By Dr. Timothy Bond

#### "Global Tea Extracts: Production to Consumption"

Tea extracts have a multitude of uses in beverages and foods, as well as in non-food items, cosmetics etc. In this presentation we will seek to clarify what tea extracts are, how and where are they manufactured. In addition we will examine the major markets and consumer uses for these widely varied products.

### Lecture 4: By Dr. Zeno Apostolides

#### "Genetic Markers for Drought Tolerance in *Camellia sinensis* Genotypes"

Sixteen cultivars of *Camellia sinensis* were selected from the phenotyping field trials at the TRFCA contrasting in the trait "drought tolerance". This trait was present in eight and absent in eight cultivars. Eighteen Random Amplified Polymorphic DNA (RAPD) primers were designed from literature studies on other plant species. RAPD 7 was found to segregate with 4 of the 8 and RAPD 8 with 6 of the 8 drought tolerant cultivars. The amplified bands were extracted from the agarose gels, and PCR amplified six times until 200 nanograms were obtained from each drought tolerant cultivar. These genotyping primers may be useful for other tea growing countries in Marker Assisted Selection (MAS) of new tea cultivars.



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## Report of the 2nd BeSeTo Meeting

**The** second BeSeTo Meeting (short for Beijing/Seoul/Tokyo), initiated by ILSI Korea, was held Aug 12<sup>th</sup> and 13<sup>th</sup> in Beijing at the Capital Hotel Beijing China. Seven members of ILSI Japan's International Cooperation Task Force attended and gave a presentation on food safety and regulations in Japan. Plans are to continue cooperation and exchanges of opinions in the future. Five members of ILSI Korea and six members of ILSI Focal Point in China attended. After only one year, there are already new regulations and much activity in each country as well as development in the food safety area. In addition, methods for use in the analysis of the second phase of ILSI Southeast Asia Region's comparative research on food regulations were discussed.

**Chen** Jun-Shi of ILSI Focal Point in China served at the chair and provided the opening remarks. This was followed by summaries and discussion of the food safety issues which had occurred in each country during the previous year. The following is a list of the topics discussed.

- 1) Korea
  - System for Communicating Foreign Matter in Food
  - Food Irradiation
- 2) Japan
  - The Econa Incident · Mad Cow Disease
  - Food Irradiation
- 3) China
  - Melamine Contamination
  - Potentially Harmful Food Contaminants
  - Artificial Contaminants
  - Food Information Which Causes Alarm, But Does Not Pose a Threat to Human Health
  - Food Irradiation

#### 4) Topics Discussed

Continuing from the first meeting, risk communication was a topic of common interest. It was proposed that ILSI should organize an effective risk communication strategy (determining the reliable scientific information, then communicating it concisely and accurately in a manner easily understandable to the typical consumer), but later determined that the differences between the countries was still too great to proceed. (For more detailed information, see issue #103 of ILSI.)

## First ILSI Japan-Endowed Chair of Functional Food Science and Nutrigenomics Research Seminar

**On** Dec. 12, 2010, the First ILSI Japan-Endowed Chair of Functional Food Science and Nutrigenomics Research Seminar was held at the LePort Kojimachi Hotel. As the ILSI Japan sponsored research in nutrigenomics enters its second phase, results are starting to become available and the program centered on presentations on recently published scientific papers.



#### Opening Remarks

Keiko Abe (Professor, ILSI Japan-Endowed Chair of Functional Food Science and Nutrigenomics, Graduate School of Agricultural and Life Science, The University of Tokyo)

#### The ILSI Japan Chair of Nutrigenomics: Phase II Plans and Case Studies

Yuji Nakai (Associate Professor, ILSI Japan-Endowed Chair of Functional Food Science and Nutrigenomics, Graduate School of Agricultural and Life Sciences, The University of Tokyo)

#### Intake of Tomatoes and Red Peppers and the Expression of Genes in the Liver: DNA Microarray Analysis

Hirokazu Aizawa, Kagome Co. Ltd

#### An Analysis of the Effects of Plant Extracts in Countering Metabolic Syndrome.

Shinichi Honda, Kaneka Corporation

#### Functional Analysis of Fructooligosaccharide Nutrigenomic Research

Dr. Tomoyuki Fukasawa Meiji Seika Kaisha, Ltd.

#### Analysis of the Metabolic Function and Effects of Naringenin Chalcone on Fat Cells

Taro Horiba Kikkoman Corporation

## Sponsored Symposium

# ILSI Japan International Symposium The Usefulness of TTC in Risk Assessment

Sponsors : ILSI Research Foundation and ILSI Japan

Support : Japanese Society for Food Hygiene and Safety and the  
Communication Center for Food and Health Science

On Dec. 9, 2010, the ILSI Research Foundation (America) and ILSI Japan held an international symposium titled The Usefulness of TTC in Risk Assessment at the U Thant International Conference Hall of the United Nations University in Tokyo. TTC\* (Threshold of Toxicological Concern) is a tool which deals with all chemicals and determining the levels of exposure at which they become harmful to human health. Among the many areas where this tool is useful, food safety is of special concern because the risk of low exposure to many chemicals in foods is not well known.

This symposium dealt with food safety evaluation, the thinking behind TTC, comparisons with other evaluation methods and the areas for which these methods are suitable. The following is a list of the speakers (for details see issue No. 105 of ILSI).

Opening Remarks: Previous Methods for Risk Evaluation and Why TTC Has Gained Attention

Chikako Uneyama National Institute of Health Sciences  
Threshold for Carcinogenicity

Shoji Fukushima (Japan Bioassay Research Center)

Genotoxicity Risk assesment

Makoto Hayashi (Biosafety Research Center Food,  
Drugs and Pesticides)

The History of TTC and the Development of a Decision Tree by ILSI Europe

Corrado Galli (University of Milan)

The Use of TTC in risk assesment of Flavor

Timothy Adams (Flavor and Extract Manufacturers  
Association)

TTC End Points Susan Felter (Procter & Gamble)

ILSI KEDR: Toward Improved Toxicity Profiles for Chemicals Alan Boobis (Imperial College London)

TTC Risk assesment of Food Packaging

Akihiko Hirose (National Institute of Health Sciences)

Future Uses of TTC Corrado Galli (University of Milan)

## Risk Communication Workshop

Sponsors: Research Center for Food Safety  
The University of Tokyo

### "Food and Science—Ideal Way of Risk Communication—"

The risk communication workshop entitled "Food and Science—Ideal Way of Risk Communication—" was held on September 7<sup>th</sup> 2010. at Yayoi Auditorium Ichijo—Hall, the University of Tokyo. More than 200 people participated. The workshop was co-sponsored by Ajinomoto Co. Inc. and Kao Corporation and supported by ILSI Japan.

Ms. Irene van Geest—Jacobs (University of Twente, the Netherlands) who is a former deputy director of Communication at the European Food Safety Authority (EFSA) lectured on how to promote risk communication in Europe. Next, Prof. Hartley (University of Sussex, UK) who visited Japan for "The Royal Institution Christmas Lecture" in Tokyo, lectured on the history of the relationship between humans and edible plants.

The lectures were followed by a panel discussion. Panelists discussed science communication and science literacy and other related topics.

### "Risk Assessment and Risk Communication for New Chemical Contaminants in Foods"

The risk communication workshop entitled "Risk Assessment and Risk Communication for New Chemical Contaminants in Foods" was held on September 8<sup>th</sup> 2010. The workshop was organized by the Research Center of Food Safety of the University of Tokyo, and supported by ILSI Japan.

Ms. Irene van Geest presented the first lecture. This lecture was entitled "New Contaminants or New Risk?". Ms. Van Geest gave an overview of three cases, "acrylamide", "semicarbazide" and "bisphenol A" in the context of lessons learned in Europe.

Dr. Angelica Prei?—Weigert, who is the Director of Contaminant at the German federal institute for risk assessment (BfR), introduced "BfR Guidance Document for Health Assessment" which reports a standardized procedure for risk assessment in Germany.



## ILSI 2010 Activities

# What Activities Was Each Task Force Involved In?

### 1) Safety Information Research Task Force

- (1) Held 7 meetings of the Toxicology Education Task Force.
- (2) Public Lectures: Food and Science - Risk Communication (September 7th) and Evaluation and Communication of the Risks of New Chemicals in Foods (September 8).
- (3) Held the International Symposium "Risk Evaluation and the Usefulness of TTC (Threshold of Toxicological Concern)".
- (4) Food Microorganisms Task Force
  - Took part in the Ministry of Health, Labor and Welfare research titled "Research on the Origin of Contaminants in Drinking Water"
  - Two new topics are being incorporated: "Information on Global Trends in Microbiological Testing" and "Information on Harmful Microorganisms in Food and Drinking Water"
- (5) Risk Assessment Task Force
  - Information gathering and cooperation with international organizations (JECFA, IARC, etc.) and The Food Safety Commission's Special Investigation Commission.
- (6) Food Allergy Task Force
  - Translated the EU food allergy survey project "Euro Prevall" report.
  - Analysed allergy patient total allergen load data as part of the research theme "Can allergy thresholds be determined from total allergen load data?"
- (7) Flavour Task Force
  - Education about the Threshold of Toxicological Concern (TTC) approach.

### 2) Biotechnology Task Force

- Took part in planning the International ISO/TC34/SC16 Meeting held by the AOAC, February 9th to 11th and sponsored a workshop titled "International Trends in GMO Detection Technology".
- Published "Understanding Genetically Modified Foods II" in October.

### 3) Nutrition and Health Research Committee

- (1) Nutrition Task Force
  - Conference on Nutrition and Aging: The conference and a commemoration of the 30th Anniversary of the ILSI Japan will be held at Tokyo University's Yayoi Auditorium, Ichijo Hall, September 28th to 30th, 2011.
  - Obesity Working Group: worked to support sales of the "Obesity Among the Japanese and Metabolic Syndrome - Nutrition, Exercise, Eating Habits and Obesity Physiology Research" book and CD.
- (2) Carbohydrates Task Force
  - GR Project: work to provide technical support establishment of a

Glycaemic Response (GR) method prototype was consigned to Koshien University.

- (3) Tea Task Force, Tea Information Working Group
  - Studied analytic objects and methods in order to create data base of quality and health benefits of tea.
  - Planned the ILSI Japan session of the 4th International Conference "Tea Technology Meeting".
  - Worked with Yoshiyuki Takeda, a former researcher at the National Institute of Vegetable and Tea Science, in validating procedures for listing and storing materials.

### 4) Food Functionalities Research Committee

- (1) Food Functionalities Research Committee
  - Met 3 times and the secretariat met 3 times.
  - Translated the ILSI Europe monograph "Functional Foods: From Science to Health and Claims".
  - Planned the program for the Sixth Conference on Nutrition and Aging.
- (2) The University of Tokyo ILSI Japan-Endowed Chair on the Functional Food Science and Nutrigenomics Second Phase
  - The activities of both the first and second phase were summarized in English and published in the Science & Technology in Japan, No. 104.
  - A meeting to exchange information and results related to the first and second phases of the endowed chair was held Dec. 15th.

## Editor's postscript

This marks the second year of publication of this newsletter. The information committee has announced that changes to the appearance, content and publication timing of this newsletter. In issues 1 to 4, there was a lack of strong informational content, therefore going forward the content can be streamlined with a focus on newsworthy items, and the publication schedule increased from twice a year to three times a year. From this issue (#5), this new format goes into effect. The current information committee is working to publicize the issue 100 of ILSI via the ILSI internet home page. The ILSI home page is used to present the details of presentations and other important matters as well as general news and breaking news. Since issue #1, this newsletter has been published in English in order to more widely disseminate and explain to those outside Japan the activities of ILSI Japan. We welcome any opinions and feedback concerning this newsletter.

## ILSI Japan Newsletter

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