

KIF 2006

Aichi, JAPAN

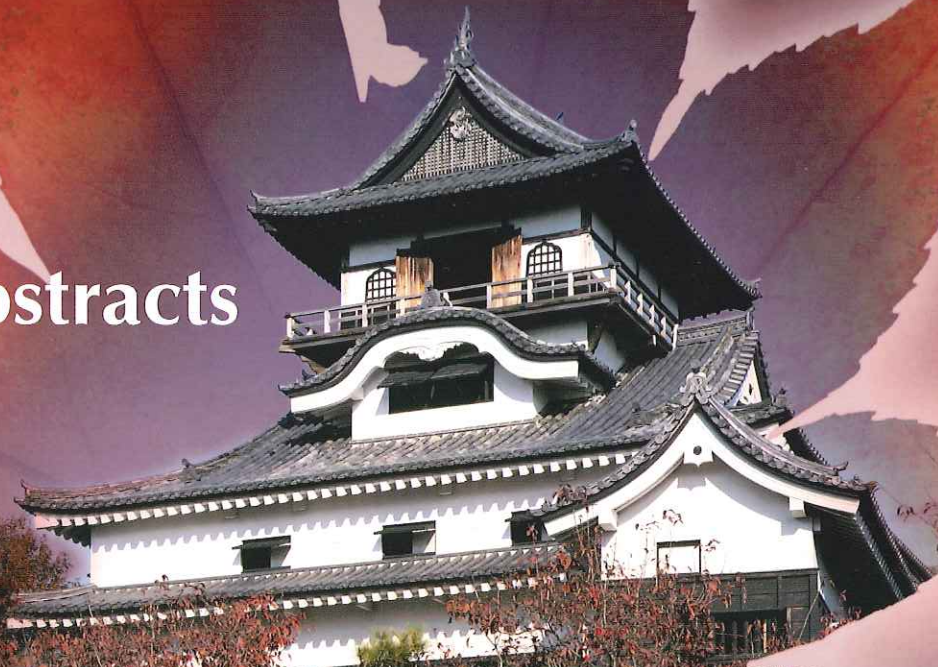
The Kadota Fund International Forum 2006

The Scientific Substantiation of Functional Foods: Human Studies toward the Global Standard

November 21-22, 2006

Inuyama International Sightseeing Center "FREUDE"

Program & Abstracts



<http://kadota06.umin.jp/>

The Kadota Fund International Forum 2006

The Scientific Substantiation of Functional Foods

- Human Studies toward the Global Standard -

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Inuyama International Sightseeing Center "Freude"

Inuyama, Aichi, Japan

Supported by

Japan Health Foundation Kadota Fund

Greeting

Welcome to the Kadota Fund International Forum 2006(KIF 2006)

We are delighted to have the opportunity to hold this year's international forum at Inuyama with support from the Japan Health Foundation Kadota Fund. Inuyama is a city known as a picturesque, academic place. We'd like to give all of you a hearty welcome.

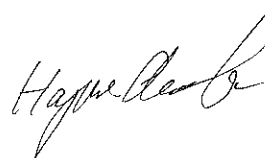
Now, a few years after the beginning of the 21st century, "longevity in good health" is a common goal pursued by people all over the world. As is already known to participants at this forum, it's generally accepted that health care and promotion through a sensible daily diet is gaining attention as the most feasible strategy for the achievement of "longevity in good health." Therefore we researchers, who are engaged in food science, assume an extremely heavy responsibility. Under such circumstances, we've decided to bring up the Present Status on Physiological Function of Foods as a major topic in KIF 2006. It is true that the academic development of food science has greatly contributed to health care and promotion through daily diet.

In contrast, development is causing significant social problems in that many kinds of foods that have not yet been scientifically researched. One of the objectives of this forum is to discuss the following issues: First, how the analysis for food evaluation is conducted in a human intervention study. Second, how major approaches are being carried out for analysis. Third, how we can establish a global standard through these activities. We've invited 12 international researchers who are at the forefront of each related area. We hope knowledge of the current global situations will help to make this forum fruitful for future discussions.

In hope for the further development of related academic areas, KIF 2006 also aims to enlighten and foster young researchers. We set space aside for the poster session for public subscription and will present the Kadota Award for Poster Presentation for the excellent presentations.

Despite the short period of two days, we look forward to active participation and discussion from all of you.

Last but not least, we would like to thank lecturers and poster presenters for making time in their busy schedules for the presentations. We are also most grateful to the Japan Health Foundation Kadota Fund for supporting the holding of this important forum.



Hajime Ohigashi, Ph.D.
Chairman of KIF 2006
Professor, Graduate School of Agriculture
Kyoto University

Organization

Supported by

Japan Health Foundation Kadota Fund

Organizing Committee

Chairman

Hajime Ohigashi Division of Food Science and Biotechnology,
Graduate School of Agriculture, Kyoto University, Japan

Members

Toshihiko Osawa Laboratory of Food and Biodynamics,
Nagoya University Graduate School of Bioagricultural Sciences,
Japan

Toshio Shimizu Nagoya-bunnri University (Fresco Japan Ltd. Co.), Japan

Secretariat

The Kadota Fund International Forum 2006 (KIF2006) Secretariat
c/o e-side, inc.

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E-mail: kadota2006-office@umin.ac.jp

General Information

Dates

November 21-22, 2006

Venue

Inuyama International Sightseeing Center "Freude"

4-21, Matsumoto-cho, Inuyama, Aichi, Japan

Phone: +81-568-61-1000 / Fax: +81-568-63-0156

Official Language

English will be working language for presentation and comment.

Simultaneous interpretation will be provided at "Toward the Global Standard and Conclusive Discussion" session from 13:15 to 15:50 on Nov. 22.

Web site

<http://kadota06.umin.jp/>

Banquet

Date & Time: November 21, 2006 18:00-20:00

Venue: Banquet Room "Chateau", 6th Floor of Meitetsu Inuyama Hotel

* Courtesy bus service will be provided from conference venue to Meitetsu Inuyama Hotel.

PROGRAM

November 21(Tue.)

4th Floor

Opening Address

13:00-13:10

Hajime Ohigashi

Div. of Food Science and Biotechnology, Graduate School of Agriculture, Kyoto Univ., Japan

Functional Foods and Food-ingredients I

13:10-14:30

Moderators: Kazuki Kanazawa, Makoto Shimizu

Characterising Probiotics and Prebiotics for Functional Foods: Balancing Intestinal Microbiota Against Diseases

Seppo Salminen

Dept. of Food Development, Functional Foods Forum, Univ. of Turku, Finland

The Synergistic Effect of PUFA and Polyphenol to Protect the Neurodegeneration in Ageing

Wakako Maruyama¹, Fujiko Ando², Masayo Nagai¹, Toshio Niwa¹, Toshihiko Osawa³

¹Dept. of Geriatric Medicine, National Center for Geriatrics and Gerontology, ²Dept. of Epidemiology, National Center for Geriatrics and Gerontology, ³Lab. of Food and Biodynamics, Nagoya Univ. Graduate School of Bioagricultural Sciences, Japan

Epidemiology and Toxicogenomics

15:00-17:00

Moderators: Dai Nakae, Akira Murakami

How "Dietary Intervention Trials" should be designed: Importance of Knowledge on Epidemiology and Consideration to Feasibility.

Satoshi Sasaki

National Inst. of Health and Nutrition, Japan, Project Leader of Nutritional Epidemiology Program

Gene Expression Analysis in the Liver of Mice Administered Carcinogens and Non-carcinogens ---For the Development of a New Carcinogenicity Test---

Satoshi Kokura, Tomohisa Takagi, Osamu Handa, Toshikazu Yoshikawa

Biomedical Safety Science, Kyoto Prefectural Univ. of Medicine, Japan

Toxicogenomic Approach for Prediction of Carcinogenicities of Chemicals in Rats

Tomoyuki Shirai

Dept. of Experimental Pathology and Tumor Biology, Graduate School of Medical Sciences
Nagoya City Univ., Japan.

Banquet

18:00-20:00

Venue: Banquet Room "Chateau", 6th Floor of Meitetsu Inuyama Hotel

* Courtesy bus service will be provided from conference venue to Meitetsu Inuyama Hotel.

Functional Foods and Food-ingredients II

9:15-10:35

Moderators: Junji Terao, Eiji Takeda

Development of Functional Food for Metabolic Syndrome

Eiji Takeda

Dept. of Clinical Nutrition, Inst. of Health Biosciences, Univ. of Tokushima Graduate School, Japan

Is Caloric Restriction the Key to a Longer and Healthier Life?

Luigi Fontana

Div. of Geriatrics and Nutritional Science and Center for Human Nutrition, Washington Univ. School of Medicine, USA

Div. of Food Science, Human Nutrition and Health, Italian National Inst. of Health, Rome, Italy

Functional Foods and Food-ingredients III

10:50-12:10

Moderators: Tojiro Tsushida, Naomi Osakabe

Anthocyanins and the Promise for Human Health: Research Gains and Knowledge Gaps

Beverly A. Clevidence

Diet and Human Performance, Lab., USDA, Beltsville, USA

A Probiotic Strain LG21 (*Lactobacillus Gasseri* OLL 2716) for Prevention of *Helicobacter Pylori*-induced Gastric Diseases

Yasuhiro Koga

Lab. for Infectious Diseases, Tokai Univ. School of Medicine, Japan

Lunch

2F

12:10-13:15

※Simultaneous interpretation will be provided.

Moderators: Toshihiko Osawa, Toshio Shimizu

Japanese Regulatory System of Health Claim on Foods and the International Comparison

Toshio Shimizu

Nagoya-bunri Univ. (Fresco Japan Ltd. Co.), Japan

Health Foods Regulatory System in China-The Existing State of Affairs and Future Prospects-

Jian Wu

Japan-China Health Science Society, Japan

Health Claims on Foods in Europe - Regulations and Scientific Substantiation

Susanne Bryngelsson and Nils-Georg Asp

SNF Swedish Nutrition Foundation, Lund, Sweden

Closing Address

15:50-16:00

Toshihiko Osawa

Lab. of Food and Biodynamics, Nagoya Univ. Graduate School of Bioagricultural Sciences, Japan

Poster Session

10:00-12:00

P01

Biological Behaviors of Anthocyanins: Relation to their Chemical Structure

Takashi Ichiyanagi¹, Yoshiki Kashiwada², M. Mamunur Rahman¹, Yasuo Shida³, Yoshihiko Hatano¹,
Yasumasa Ikeshiro¹, Tetsuya Konishi¹

¹Niigata Univ. of Pharmacy and Applied Life Sciences, ²Univ. of Tokushima, ³Tokyo Univ. of Pharmacy, Japan

P02

Synergism of Anthocyanins and their Preventive Effect on Oxidative Stress in vivo

M. Mamunur Rahman, Takashi Ichiyanagi, Yoshihiko Hatano, Tetsuya Konishi
Niigata Univ. of Pharmacy and Applied Life Sciences (NUPALS), Japan

P03

Analysis of the Direct Interaction between Signal Transducer and Activator of Transcription 1 (STAT1) and some Flavonoids by Surface Plasmon Resonance

Kazuo Shoji, Elena Darra, Sofia Mariotto, Marta Menegazzi, Hisanori Suzuki
Dept. of Morphological and Biomedical Sciences, Univ. of Verona, Italy

P04

A Cacao Polyphenols on Cardiovascular Disease Prevention

Naomi Osakabe
Strategic Information & Ingredient Development Dept. Meiji Seika Kaisha Ltd., Japan

P05

Anti-ageing Effects of Food-derived Polyphenols

Lan Xiang¹, Akira Matsuura², Leo Tsud³, Wakako Maruyama⁴, Toshihiko Osawa¹
¹Dept. of Applied Molecular Bioscience, Graduate School of Bioagricultural Biosciences, Nagoya Univ., ²Dept. of Biology, Faculty of Science, Chiba Univ., ³Dept. of Mechanism of ageing, National Center for Geriatrics and Gerontology, ⁴Dept. of Geriatric Medicine, National Center for Geriatrics and Gerontology, Japan

P06

Involvement of Antithyroidal Effects and Inhibition of the Aromatase Activity in the Endocrinological Effects of Green Tea Extracts in Rats

Kanako Satoh¹, Yoshimitsu Sakamoto¹, Akio Ogata¹, Hisashi Kamimura¹, Mitsuteru Numazawa²
¹Tokyo Metropolitan Inst. of Public Health, ²Tohoku Pharmaceutical Univ., Japan

P07

Analysis of Functional Changes of Neutrophil-like Differentiated Cell Lines and Effect of Tea Extracts on Cell Abnormality using a Hyperglycemia Model

Tomoko Oya-Ito^{1,2}, Hirotaka Naitou¹, Shuichi Masuda¹, Norio Ohashi^{1,2}, Naohide Kinae^{1,2}

¹Graduate School of Nutritional and Environmental Sciences, ²COE21, Univ. of Shizuoka, Japan

P08

Effects of Green Tea Polyphenols on Dextran Sulfate Sodium-induced Colitis in Male ICR Mice

Mihye Kim¹, Akira Murakami¹, Takuji Tanaka², Hajime Ohigashi¹

¹Div. of Food Science and Biotechnology, Graduate School of Agriculture, Kyoto Univ., ²Dept. of Oncologic Pathology, Kanazawa Medical Univ., Japan

P09

Prevention of Diet-induced Hypercholesterolemia by a Catechin-free Saponin-rich Extract from Green Tea Leaves

Yoko Matsui¹, Hitomi Kumagai², Hideki Masuda¹, Osamu Nishimura¹

¹Ogawa & Co., Ltd., ²Dept. of Agricultural and Biological Chemistry, Nihon Univ., Japan

P10

Coffee Cherry Extract Increases the Activity of Glutathione-S-transferase and Quinone Reductase in Mice

Simona Vicas^{1,2}, Takashi Hashimoto¹, Mayumi Okamoto³, Takeshi Suzuki⁴, Kazuo Sambongi⁵, Midori Nobuchi³, and Kazuki Kanazawa^{1,3}

¹Dept. of Biofunctional Chemistry, Faculty of Agriculture, Kobe Univ., Japan, ²Faculty of Environmental Protection, Univ. of Oradea, Romania, ³Dept. of Biofunctional Chemistry, Graduate School of Science and Technology, Kobe Univ., Japan, ⁴Dept. of Biological Environmental Science, Faculty of Agriculture, Kobe Univ., Japan, ⁵Kobe Inst. of Tropical Agriculture, Japan

P11

In vivo Breakdown of S-allyl-L-cysteine Sulfoxide by Hemoglobin with an Inhibitory Effect Against Platelet Aggregation

Takeshi Shibuya, Toshio Aoyama, Atsushi Shimazaki, Jun Ogihara, Hitomi Kumagai, Hidetoshi Sakurai

Dept. of Agricultural and Biological Chemistry, College of Bioresource Sciences, Nihon Univ., Japan

P12

Moringa Oleifera (Lam): Effects on Glucose Tolerance in Goto-Kakizaki and Wistar Rats, and on Hepatocyte Ultrastructural Changes in Iron Deficient Rats.

Moussa Ndong, Mariko Uehara, Shinichi Katsumata, Kazuharu Suzuki

Dept. of Nutritional Science, Faculty of Applied Bioscience, Tokyo Univ. of Agriculture, Japan

P13

Anti-Dental Caries Activity of the Ginger Family Plants.

Fumie Saito¹, Akihiro Ohara¹, Masako Abe², Yoshio Ozawa², Yoshimasa Nakamura³, Tsugio Matsuhisa¹

¹Graduate School of Meijo Univ., ²Takasaki Univ. of Health and Welfare, ³Graduate School of Okayama Univ., Japan

P14

Antioxidant Properties of Several Mushrooms

T. Ito¹, H. Tsuchida¹, M. Kato², M. Komazaki², T. Osawa²

¹Aichi Mizuho College, ²Nagoya Univ. Graduate School of Biogricultural Sciences, Japan

P15

Prune Extract (*Prunus Domestica* L.) Suppresses the Proliferation and Induces the Apoptosis of Human Colon Carcinoma Caco-2

Takashi Fujii¹, Takao Ikami¹, Jin-Wen Xu², Katsumi Ikeda²

¹Research and Development Inst., MIKI Corporation, ²Frontier Health Science, School of Human Environment Science, Mukogawa Women's Univ., Japan

P16

Linoleic Acid Metabolite Suppresses Skin Inflammation and Tumor Promotion in Mice and Induces Programmed Cell Death 4 in Mouse Epidermal JB6 Cells

Michiko Yasuda¹, Akira Murakami¹, Takashi Nishizawa¹, Takuji Tanaka², Nancy H. Colburn³, Hajime Ohigashi¹

¹Div. of Food Science and Biotechnology, Graduate School of Agriculture, Kyoto Univ., ²Dept. of Oncologic Pathology, Kanazawa Medical Univ., Japan, ³Gene Regulation Section, Lab. of Cancer Prevention, Center for Cancer Research, National Cancer Inst., Frederick, Maryland

P17

Inhibition of Colitis-related Mouse Colon Carcinogenesis by Dietary Administration with Prenyloxycoumarins, Auraptene and Collinin.

Yumiko Yasui¹, Hiroyuki Kohno¹, Rikako Suzuki¹, Shingo Miyamoto^{1,2}, Shigeyuki Sugie¹, Massimo Curini³, Francesco Epifano³, Federica Maltese³, Sylvia P. Gonzales³, Takuji Tanaka¹

¹Kanazawa Medical Univ., ²Graduate School of Agriculture, Kyoto Univ., Japan, ³Universita degli Studi, Perugia, Italy, Centro de Quimica Farmaceutica, Ciudad de la Habana, Cuba

P18

Citrus Auraptene Targets Translation of MMP-7 (Matrilysin) via ERK1/2-dependent and mTOR-independent Mechanism

Kyuichi Kawabata, Akira Murakami, Hajime Ohigashi

Div. of Food Science and Biotechnology, Graduate School of Agriculture, Kyoto Univ., Japan