

**Technical Schedule**

Second Floor, Grand Ballroom I–III

*Sunday***October 30, 2005**

1:30–7:00 p.m.

- 1:30 p.m. **Welcome Remarks.** M. Messina, Nutrition Matters, Inc., USA.
- 1:45 p.m. **Soy Isoflavones and Cognition: A Review of the Clinical Data.** L. Dye, Institute of Psychological Sciences, University of Leeds, UK.
- 2:15 p.m. Discussion

**Absorption of Soy Bioactives**

- 2:25 p.m. **Long-Term Dietary Habits Affect Soy Isoflavone Metabolism and Accumulation In Prostatic Fluid In Caucasian Men.** T. Hedlund<sup>1</sup>, P. Maroni<sup>1</sup>, P. Ferucci<sup>1</sup>, R. Dayton<sup>1</sup>, S. Barnes<sup>2</sup>, K. Jones<sup>2</sup>, R. Moore<sup>2</sup>, L. Ogden<sup>1</sup>, K. Wahala<sup>3</sup>, H. Sackett<sup>1</sup>, and K. Gray<sup>1</sup>, <sup>1</sup>Univ. of Colorado Health Sciences Center, USA, <sup>2</sup>Univ. of Alabama at Birmingham, USA, <sup>3</sup>Univ. of Helsinki, Finland.
- 2:35 p.m. Discussion
- 2:45 p.m. **Bioavailability of the Cancer Preventive Soy Peptide Lunasin in Animals.** B. de Lumen<sup>1</sup>, C. Lim<sup>1</sup>, I. Reyes<sup>1</sup>, P. Vichayavilas<sup>1</sup>, H. Chu<sup>1</sup>, J. Lee<sup>1</sup>, R. Hurwitz<sup>1</sup>, Y. Fang<sup>1</sup>, M. Fitch<sup>1</sup> and H. Jeong<sup>2</sup>, <sup>1</sup>Division of Nutritional Sciences & Toxicology, University of California, USA, <sup>2</sup>Andong University, Korea.
- 2:55 p.m. Discussion
- 3:05 p.m. Break

**Inflammatory Diseases**

- 3:35 p.m. **Dietary Soy Protein During Pregnancy and Lactation Reduces Renal Inflammation and Disease Progression in Young Adult Rat Offspring with Genetically Determined Kidney Disease.** H. Aukema<sup>1,2</sup>, L. Cahill<sup>1</sup>, C. Peng<sup>1</sup>, D. Sankaran<sup>1</sup>, N. Bankovic-Calic<sup>1</sup>, and M. Ogborn<sup>1,2</sup>, <sup>1</sup>University of Manitoba, Canada, <sup>2</sup>Manitoba Institute of Child Health, Canada.
- 3:45 p.m. Discussion
- 3:55 p.m. **Isoflavonoid-Free Soy Shows Anti-Inflammatory Activity in an Experimental Model for Chronic Nonbacterial Prostatitis.** M. Kauppila<sup>1</sup>, J. Bernoulli<sup>1</sup>, E. Yatkin<sup>\*1</sup>, N. Saarinen<sup>2</sup>, and R. Santti<sup>1</sup>, <sup>1</sup>Dept. of Anatomy,

Institute of Biomedicine, University of Turku, Finland, <sup>2</sup>Functional Foods Forum, University of Turku, Finland.

- 4:05 p.m. Discussion
- 4:15 p.m. **Presentation of Lifetime Achievement Awards—Industry**
- **Teeranard Chokwatawa, Nutrition House Company Co., Ltd.**  
Award to be presented by Mark Messina, Nutrition Matters, Inc. USA.
  - **Steve Demos, Founder, White Wave, Inc.**  
Award to be presented by Peter Golbitz, Soyatech, Inc., USA.

- 4:35 p.m. **Dedicated Poster Session I**

5:30–7:00 p.m.

Welcome Reception, Grand Ballroom IV–VI

*Monday***October 31, 2005**

7:30 a.m.–12:30 p.m.

*(The symposium concludes early to allow for free time to meet with colleagues and to enjoy Chicago.)*

7:30–8:30 a.m.

Continental Breakfast/Sponsor Displays/  
Poster Session I Viewing

**Equol**

- 8:30 a.m. **Opening Remarks.** T. Badger, University of Arkansas for Medical Sciences, Arkansas Children's Nutrition Center, USA.
- 8:40 a.m. **A Review of the Equol Hypothesis.** M. Kurzer, University of Minnesota, USA.
- 8:55 a.m. Discussion
- 9:05 a.m. **Equol: A Comparison of the Effects of the Racemic Compound with that of the Purified S-Enantiomer on the Growth, Invasion and DNA Integrity of Breast and Prostate Cells *in vitro*.** P. Magee<sup>1</sup>, M. Raschke<sup>2</sup>, C. Steiner<sup>2</sup>, J. Duffin<sup>1</sup>, B. Pool-Zobel<sup>2</sup>, T. Jokela<sup>3</sup>, K. Wahala<sup>3</sup>, and I. Rowland<sup>\*2</sup>, <sup>1</sup>University of Ulster, UK, <sup>2</sup>Friedrich Schiller University, Germany, <sup>3</sup>University of Helsinki, Finland.
- 9:15 a.m. Discussion
- 9:25 a.m. **Probiotic and Prebiotic Effects on Soy Isoflavone Metabolism, Equol, and Lipids.** T. Larkin<sup>1,3</sup>, L. Astheimer<sup>1,3</sup>, and W. Price<sup>3</sup>,

University of Wollongong, Australia, <sup>3</sup>Smart Foods Key Centre, Australia.

9:35 a.m. Discussion

9:45 a.m. **Urinary Excretion of Equol and the Risk of Breast Cancer in Japanese Women.** C. Nagata<sup>1</sup>, T. Ueno<sup>2</sup>, S. Uchiyama<sup>2</sup>, K. Urata<sup>2</sup>, Y. Nagao<sup>3</sup>, C. Shibuya<sup>3</sup>, Y. Kashiki<sup>3</sup>, and H. Shimizu<sup>1</sup>, <sup>1</sup>Gifu University Graduate School of Medicine, Japan, <sup>2</sup>Saga Nutraceuticals Research Institute, Otsuka Pharmaceutical Co., Ltd., Japan, <sup>3</sup>Gihoku General Hospital, Japan.

9:55 a.m. Discussion

10:05 a.m. **Treatment of Postmenopausal Monkeys with Equol Did Not Improve the Plasma Lipid Profile.** S. Appt, T. Clarkson\*, and H. Chen, Wake Forest University School of Medicine, USA.

10:15 a.m. Discussion

10:25 a.m.

Break/Sponsor Displays/Poster Session I Viewing

## Cancer

10:50 a.m. **Developing a Soy Food Based Intervention Among Healthy Men.** G. Maskarinec<sup>1</sup>, S. Hebshi<sup>1</sup>, Y. Morimoto<sup>1</sup>, S. Sharma<sup>1</sup>, A.A. Franke<sup>1</sup>, and F.Z. Stanczyk<sup>2</sup>, <sup>1</sup>Cancer Research Center of Hawaii, USA, <sup>2</sup>University of Southern California, USA.

11:00 a.m. Discussion

11:10 a.m. **Soy Intake, Use of Menopausal Hormones, Body Size, and Breast Cancer Risk in Asian-American Women.** A. Wu<sup>1</sup>, M. Yu<sup>2</sup>, C. Tseng<sup>1</sup>, and M. Pike<sup>1</sup>, <sup>1</sup>University of Southern California, USA, <sup>2</sup>University of Minnesota, USA.

11:20 a.m. Discussion

11:30 a.m. **Antiestrogen Effects of Soybean Glyceollins in Postmenopausal Monkeys.** C. Wood<sup>1</sup>, S. Appt<sup>1</sup>, T. Clarkson<sup>1</sup>, A. Franke<sup>2</sup>, S. Boue<sup>3</sup>, M. Burow<sup>4</sup>, and J.M. Cline\*<sup>1</sup>, <sup>1</sup>Wake Forest University School of Medicine, USA, <sup>2</sup>Cancer Research Center of Hawaii, USA, <sup>3</sup>Southern Regional Research Center, United States Dept. of Agriculture, USA, <sup>4</sup>Tulane University School of Medicine, USA.

11:40 a.m. Discussion

11:50 a.m. **Phytoprevent: A European Project on the Prevention of Breast and Prostate Cancer**

**by Phytoestrogens.** I. Rowland, University of Ulster, UK.

12:00 p.m. Discussion

12:10 p.m. **The Combination of Soy and Flaxseed or Their Phytoestrogens Can Better Reduce the Growth of Breast Tumors Than Soy or Genistein Alone While Causing Little Effects on Bone Health in Ovariectomized Nude Mice.** L. Thompson, K. Power, N. Saarinen, J. Chen, and W. Ward, Dept. of Nutritional Sciences, University of Toronto, Canada.

12:20 p.m. Discussion

*Tuesday*

**November 1, 2005**

7:30 a.m.–4:40 p.m.


7:30–8:30 a.m.

Continental Breakfast/ Sponsor Displays/  
Poster Session II Viewing


## Cardiovascular Disease

8:30 a.m. **Opening Remarks.** M. Messina, Nutrition Matters, Inc., USA.

It's like a  
double shot of soy.



Double the impact of your soy products with the innovative Soyselect® from Indena. Patented Soyselect® is supported by **two human clinical trials** and features **two standardized active constituents.**



Science is our nature™

Indena USA, Inc.  
811 First Avenue, Suite 218  
Seattle, WA 98104  
Tel.: 206-340-6140  
Fax: 206-340-0863  
  
[www.soyselect.info](http://www.soyselect.info)



8:40 a.m. **Hypocholesterolemic Effect of Soy Proteins—Only Due to Protein and Only in Hypercholesterolemics.** C. Sirtori, Institute of Pharmacological Sciences, University of Milan, Italy.

8:55 a.m. Discussion

9:05 a.m. **7S Soy Globulin Peptide and Cholesterol Homeostasis: *in vitro* and *in vivo* Data.** M. Lovati, C. Manzoni, S. Castiglioni, and E. Disconzi, Dept. Pharmacological Sciences, University of Milano, Italy.

9:15 a.m. Discussion

9:25 a.m. **Effect of Two Types of Soy Milk and Dairy Milk on Plasma Lipids in Hypercholesterolemic Adults: A Randomized Trial.** C. Gardner<sup>1</sup>, J. Morris<sup>1</sup>, M. Messina<sup>2</sup>, A. Kiazand<sup>1</sup>, A. Varady<sup>1</sup>, A. Franke<sup>3</sup>, <sup>1</sup>Stanford University School of Medicine, USA, <sup>2</sup>Nutrition Matters, Inc., USA, <sup>3</sup>Cancer Research Center of Hawaii, USA.

9:35 a.m. Discussion

9:45 a.m. Break/Sponsor Displays

10:15 a.m. **Soy Food Effects on Serum Lipoproteins in Humans: Updated Meta-Analysis.** J.W. Anderson, VA Medical Center and University of Kentucky Medical Service, USA.

10:35 a.m. Discussion

10:45 a.m. **Effect of Soy Isoflavone Protein and Soy Lecithin on Endothelial Function in Healthy Postmenopausal Women.** Z. Faridi, M. Evans, V. Njike, M. Hoxley, and D. Katz, Yale Griffin Prevention Research Center, USA.

10:55 a.m. Discussion

11:05 a.m. Dedicated Poster Session II

12:15–1:15 p.m.

Symposium Luncheon—Third Floor, Reviere Ballroom

## Workshop Presentation

1:15 p.m. **Role of Soy Foods in the Management of Obesity and Related Chronic Diseases: Summary of a Symposium at the University of Illinois.** J. W. Erdman, Jr., K. Cadwallader, and B.P. Klein, University of Illinois, USA.

1:30 p.m. Discussion

## Immune Function

1:40 p.m. **Soy Isoflavones Modulate Immune Function in Healthy Postmenopausal Women.** T. Ryan-Borchers, J. Park, B. Chew, M. McGuire, L. Fournier, and K. Beerman, Washington State University, USA.

1:50 p.m. Discussion

2:00 p.m. **Effects of ImmuSoy as a Food Supplement for Altering Peanut Allergic Reactions.** T. Zhang<sup>1</sup>, W. Pan<sup>2</sup>, M. Takebe<sup>3</sup>, H. Sampson<sup>1</sup>, and X. Li<sup>\*1</sup>, <sup>1</sup>Pediatrics, Allergy & Immunology, Mount Sinai School of Medicine, USA, <sup>2</sup>Surgery, Harvard Medical School, Beth Israel Deaconess Medical Center, USA, <sup>3</sup>Nichimo Co., Ltd., Japan.

2:10 p.m. Discussion

## Diabetes

2:20 p.m. **Habitual Soyfood Consumption Improves Glycemic Control Among Postmenopausal Chinese Women: A One-Year Follow-up Study.** S. Ho and Y. Chen, The Chinese University of Hong Kong, Hong Kong SAR.

2:30 p.m. Discussion

2:40 p.m. Break/Sponsor Displays/ Poster Session II Viewing

3:10 p.m. **Beneficial Metabolic Effect of Soy-Rich Diets in Young Firefighter Trainees.** Y. Yamori<sup>1,2</sup>, M. Shibata<sup>1</sup>, M. Mori<sup>3</sup>, N. Ishiwata<sup>4</sup>, M. Tokoro<sup>2</sup>, and Y. Yamamoto<sup>1</sup>, <sup>1</sup>Hyogo Prefecture Health Promotion Association, Japan, <sup>2</sup>Mukogawa Women's University, Japan, <sup>3</sup>Research Institute for Production Development, Japan, <sup>4</sup>Atomi Junior College, Japan.

3:20 p.m. Discussion

## Menopausal Symptoms

3:30 p.m. **The Effects of 100mg Soy Isoflavone Supplements on Menopausal Symptoms and Quality of Life: A Double-Blind, Randomized, Placebo-Controlled, Crossover Trial in British Postmenopausal Women.** C. Hill<sup>1</sup>, A. Cassidy<sup>2</sup>, J. Powell<sup>3</sup>, D. Talbot<sup>3</sup>, and L. Dye<sup>1</sup>, <sup>1</sup>Institute of Psychological Sciences, University of Leeds, UK, <sup>2</sup>School of Medicine, Health Policy and Practice, University of East Anglia, UK, <sup>3</sup>Unilever R&D, UK.

3:40 p.m. Discussion

3:50 p.m. **Isoflavone Supplements Predominantly Containing Genistin/Genistein Reduce Hot**



**Flushes: A Critical Analysis of Published Studies.** P. Williamson-Hughes<sup>1</sup>, B. Flickinger<sup>1</sup>, M. Messina<sup>2</sup>, and M. Empie<sup>1</sup>, <sup>1</sup>Archer Daniels Midland Company, USA, <sup>2</sup>Nutrition Matters, Inc., USA.

4:00 p.m. Discussion

4:10 p.m. **Comparison of Isoflavones and Tibolone Regarding Vaginal Estrogenicity in Peri and Postmenopausal Women.** U.D. Rohr<sup>1</sup> and A. Jungbauer<sup>2</sup>, <sup>1</sup>AHS, Austria, <sup>2</sup>Dept. of Biotechnology, BOKU, Austria.

4:20 p.m. Discussion

4:30 p.m. **Presentation of the Scientific Achievement Award.**

● **Mariarosa Lovati, Department of Pharmacological Sciences, Italy.**

Award to be presented by Cesare Sirtori, Institute of Pharmacological Sciences, University of Milan, Italy.

*Wednesday*

**November 2, 2005**

7:30 a.m.–12:00 p.m.

7:30–8:30 a.m.

Continental Breakfast/ Sponsor Displays/  
Poster Session II Viewing

8:30 a.m. **Opening Remarks.** M. Messina, Nutrition Matters, Inc.

8:40 a.m. **Can Soy Isoflavones Cause Endometrial Cancer?** J. Mark Cline, Wake Forrest University School of Medicine, USA.

9:10 a.m. Discussion

### **Osteoporosis**

9:20 a.m. **Effects of the Phytoestrogen Genistein on Bone Loss, Cardiovascular Risk Prevention and Climacteric Symptoms: A Two Year Double Blind Placebo Controlled Study. Interim Evaluation at One Year.** F. Squadrito, R. D'Anna, F. Corrado, A. Gaudio, M. Atteritano, A. Bitto, D. Altavilla, and N. Frisina, University of Messina, Italy.

9:30 a.m. Discussion

9:40 a.m. **Effects of Long Term Soy Dietary Supplementation on Bone Mineral Density.** F. Lovrien<sup>1</sup>, J. Williams<sup>2</sup>, B. Meyer<sup>1</sup>, and D. Erger<sup>1</sup>, <sup>1</sup>Sioux Valley Hospital, USA, <sup>2</sup>University of South Dakota, USA.

9:50 a.m. Discussion

10:00 a.m. Break/Sponsor Displays/Poster Session II Viewing

10:30 a.m. **Effect of Soy Protein With or Without Isoflavones on Bone Mineral Density in Postmenopausal Women.** J.C. Gallagher, P. Rapuri, S. Longsdon, and J. Detter, Creighton University, USA.

10:40 a.m. Discussion

### **Cognitive Function**

10:50 a.m. **Cognitive Effects of Soy Isoflavones in a Older Adults: Influence of Gender and ApoE Genotype.** C. Gleason<sup>1,2</sup>, S. Meade<sup>1,2</sup>, N. Lane<sup>1,2</sup>, T. Ohrt<sup>1,2</sup>, and S. Asthana<sup>1,2</sup>, <sup>1</sup>University of Wisconsin, Dept. of Medicine, Sect. of Geriatrics, USA, <sup>2</sup>Madison VA GRECC, USA.

11:00 a.m. Discussion

11:10 a.m. **Prediction of Direct Anti-Oxidant Activity for Soy Isoflavones in Mammalian Brain.** S. Eliuk, J. Deshane, L. Wilson, M. Kirk, S. Barnes, and H. Kim\*, University of Alabama at Birmingham, USA.

11:20 a.m. Discussion

### **Weight Control**

11:30 a.m. **16-Week Randomized, Controlled Trial of Soy vs. Casein Meal Replacements for Weight Management of Obese Women.** J. W. Anderson<sup>1</sup>, J. Fuller<sup>1</sup>, Elizabeth Konz<sup>1</sup>, and A. Tabor<sup>2</sup>, <sup>1</sup>University of Kentucky, USA, <sup>2</sup>Revival Soy, USA.

11:40 a.m. Discussion

11:50 a.m.–12:00 p.m.

**Closing Remarks.** M. Messina, Nutrition Matters, Inc.

## Session I Poster Presentations

### Athletic Performance

**Post-Exercise Consumption of Soy Protein Promotes General Protein Synthesis and mRNA Translation Factor Activity in Skeletal Muscle.** T. Anthony<sup>1</sup> and M. McNurlan<sup>2</sup>, <sup>1</sup>Indiana University School of Medicine, USA, <sup>2</sup>State University of New York, USA.

**Soy Protein Intake Has Broad Positive Interactions with Exercise.** R. DiSilvestro, Ohio State University, USA.

### Cancer

**Phytoestrogen Intake Prior to Diagnosis is Associated with Improved Indicators of Breast Cancer Survival in a Group of Newly-Diagnosed Australian Women.** J. Ha<sup>1</sup>, P. Lyons-Wall<sup>\*2</sup>, D. Moore<sup>3</sup>, D. Tattam<sup>3</sup>, J. Boyages<sup>4</sup>, O. Ung<sup>4</sup>, and R. Taylor<sup>1</sup>, <sup>1</sup>School of Public Health, The University of Sydney, Australia, <sup>2</sup>School of Public Health, Queensland University of Technology, Australia, <sup>3</sup>Faculty of Pharmacy, The University of Sydney, Australia, <sup>4</sup>New South Wales Breast Cancer Institute, Westmead Hospital, Australia.

**Effect of Genistein on iNOS Expression and its Relation to Proliferatory Inhibition of Gastric Carcinoma Cells.** D.F. Song<sup>1,2</sup>, S.K.C. Chang<sup>1</sup>, and H.B. Cui<sup>2</sup>, <sup>1</sup>Dept. of Cereal & Food Sciences, North Dakota State University, USA, <sup>2</sup>Dept. of Food Nutrition & Hygiene, Public Health College, Harbin Medical University, China.

**The *in vitro* Metabolism of Estrogens by Human Fecal Bacteria: A Comparison of Equol-Producers and Non-Producers.** C. Atkinson<sup>1</sup>, S. Berman<sup>2</sup>, W. Thomas<sup>1</sup>, and J. Lampe<sup>1</sup>, <sup>1</sup>Fred Hutchinson Cancer Research Center, USA, <sup>2</sup>Bastyr University, USA.

**Phytoestrogens do not Affect the Growth of Breast Cancer Tumors in Mice.** D. Gallo<sup>1</sup>, C. Ferlini<sup>1</sup>, M. Fabrizi<sup>1</sup>, S. Prislei<sup>1</sup>, A. Riva<sup>2</sup>, P. Morazzoni<sup>2</sup>, E. Bombardelli<sup>2</sup>, and G. Scambia<sup>1</sup>, <sup>1</sup>Dept. of Obstetrics and Gynecology, Catholic University of the Sacred Heart, Italy, <sup>2</sup>INDENA S.p.A., Italy.

**Prospective Survey Evaluating the Use of Soy Products in Women with Breast Cancer.** J. Franciose, C. Lammersfeld, J. Grutsch, P. Vashi, and S. Walker, Cancer Treatment Centers of America, USA.

**Dietary Soy Isoflavones Have no Adverse Effects on the Non-Human Primate Prostate, Testis, or Mammary Gland.** D. Perry<sup>1</sup>, J. Spedick<sup>1</sup>, M. Adams<sup>1</sup>, A. Franke<sup>2</sup>, S. Walker<sup>1</sup>, and J. Cline<sup>1</sup>, <sup>1</sup>Dept. of Pathology, Section on Comparative Medicine, Wake Forest University School of Medicine, USA, <sup>2</sup>Cancer Research Center of Hawaii, USA.

**Beneficial Effects of Regular Consumption of Whole Soy Foods on Serum Lipids, Lipid Peroxidation, High Sensitivity CRP and Blood Pressure in Perimenopausal Women: A Randomized, Controlled, Crossover Trial.** S. Songchitsomboon, K. Chanda, D. Danboonchant, J. Manonai, J. Hong, and S. Komindr, Ramatibodi Hospital, Mahidol University, Thailand.

**Using Biomarkers to Assess Phytoestrogen Intake in Breast Cancer Patients During a Dietary Intervention Study.** T. Rawjee<sup>1</sup>, G. Spahn<sup>2</sup>, C. Kennemann<sup>2</sup>, A. Blake<sup>3</sup>, J. Mackinnon<sup>1</sup>, G. Dobos<sup>2</sup>, and M. Ritchie<sup>1</sup>, <sup>1</sup>Bute Medical School, University of St. Andrews, Scotland, <sup>2</sup>Dept. of Internal and Integrative Medicine, University Duisburg-Essen, Germany, <sup>3</sup>Scottish Crop Research Institute, Scotland.

### Are Phytoestrogens Beneficial in Breast Cancer



**ILLINOIS  
SOYBEAN  
ASSOCIATION**

**PRODUCING RESULTS**



**Patients? Use of a Newly Validated Biomarker to Assess Phytoestrogen Intake in Women With Breast Cancer and Controls.** J. Mackinnon<sup>1</sup>, T. Rawjee<sup>1</sup>, A. Blake<sup>3</sup>, G. Spahn<sup>2</sup>, G. Dobos<sup>2</sup>, and M. Ritchie<sup>1</sup>, <sup>1</sup>Bute Medical School, University of St. Andrews, Scotland, <sup>2</sup>Dept. of Integrative Medicine, University Duisburg-Essen, Germany, <sup>3</sup>Scottish Crop Research Institute, Scotland.

**Phytoestrogen-Gene Associations with Sex Hormone Levels Among Postmenopausal Women in EPIC-Norfolk.** Y. Low<sup>1</sup>, A. Dunning<sup>2</sup>, M. Dowsett<sup>3</sup>, and S. Bingham<sup>1</sup>, <sup>1</sup>MRC Dunn Human Nutrition Unit, United Kingdom, <sup>2</sup>Cancer Research UK - Department of Oncology, Cambridge, United Kingdom, <sup>3</sup>Institute of Cancer Research, London, UK.

**Microarray Analysis of Gene Expression Regulation By Equol in MCF-7 Cells.** J.S. Kim<sup>1</sup>, J.H. Kim<sup>1</sup>, J.R. Kim<sup>1</sup>, C.H. Jang<sup>1</sup>, H.A. Lim<sup>1</sup>, S.J. Lee<sup>3</sup>, and D.Y. Kwon<sup>2</sup>, <sup>1</sup>Department of Animal Science & Biotechnology, Kyungpook National University, S. Korea, <sup>2</sup>Korea Food Research Institute, Republic of Korea, <sup>3</sup>Division of Food Science, Korea University, Republic of Korea.

## Isoflavones

**Discrepancy Between Self-Claimed and Actual Soy Intakes.** M. Sagara<sup>1</sup>, M. Mori<sup>1</sup>, H. Mori<sup>2</sup>, and Y. Yamori<sup>1,3</sup>, <sup>1</sup>Research Institute for Production Development, Japan, <sup>2</sup>Institute for Health Restoration, Japan, <sup>3</sup>International Center for Research on Primary Prevention of Cardiovascular Diseases, Japan.

**Genetic Manipulation of Soybean Seed Isoflavones.** V. Lozovaya, O. Zernova, A. Lygin, and J. Widholm, Dept. of Crop Sciences, University of Illinois, USA.

**Effect of Ipriflavone on the Growth Performance and Related Physiological Function in Rats.** H. Ma, Z. Han\*, G. Wang, and S. Zou, Key Lab of Animal Physiology & Biochemistry, Ministry of Agriculture, Nanjing Agricultural University, China.

**Effects of Isoflavone on Aromatase Activity and Muscle Growth in Male Rats.** H. Ma, Z. Han\*, G. Wang, and S. Zou, Key Lab of Animal Physiology & Biochemistry, Ministry of Agriculture, Nanjing Agricultural University, China.

**Mechanism of Soybean Isoflavone on Regulation of Testosterone Secretion in Rat Leydig Cell.** H. Ma, Z. Han\*, S. Zou, and G. Wang, Key Laboratory of Animal

Physiology & Biochemistry, Ministry of Agriculture, Nanjing Agricultural University, China.

**Temperature and Soil Moisture Effects on Soybean Seed Isoflavones.** A.V. Lygin<sup>1</sup>, V.V. Lozovaya<sup>1</sup>, A.V. Ulanov<sup>1</sup>, R.L. Nelson<sup>4</sup>, and J. Daide<sup>5</sup>, <sup>1</sup>Dept. of Crop Sciences, University of Illinois, USA, <sup>4</sup>USDA, Agricultural Research Service, University of Illinois, USA, <sup>5</sup>Ecole Supérieure d'Agriculture de Purpan, France.

**Determination of Major Isoflavone Components Based on HPLC Technology among Southern Soybean Varieties in China.** J.-M. Sun, F.-X. Han, and A.-L. Ding, Institute of Crop Sciences, Chinese Academy of Agricultural Sciences, P.R. China.

**Intervention Study of Soy Isoflavone Supplement for Menopausal Women.** N. Ishiwata<sup>1</sup>, S. Watanabe<sup>2</sup>, Y. Omori<sup>3</sup>, M. Murayama<sup>3</sup>, W. Mohara<sup>3</sup>, A. Yamada<sup>3</sup>, and T. Wada<sup>3</sup>, <sup>1</sup>Atomi Junior College, Japan, <sup>2</sup>National Institute of Health and Nutrition, Japan, <sup>3</sup>Tokyo University of Agriculture, Japan.

**Genistein and Daidzein Reduces Level of Total Serum Cholesterol in Orhidectomized Middle-Aged Rats.** B. Sobic-Jurjevic<sup>1</sup>, D. Brkic\*<sup>2</sup>, B. Filipovic<sup>1</sup>, V. Ajdzanovic<sup>1</sup>, and M. Sekulic<sup>1</sup>, <sup>1</sup>Institute for Biological Research, Serbia and Montenegro, <sup>2</sup>Crown Agents, Serbia and Montenegro.

**High Sensitivity, Quantitative LC-MS Analysis of Isoflavones and Their Metabolites in Physiological Fluids.** K. Jones, R. Moore, S. Barnes, University of Alabama at Birmingham, USA.

## Isoflavone Metabolism

**Absorption of Soybean Isoflavones in Isolated Rat Small Intestine.** H. Ma, Z. Han\*, S. Zou, and G. Wang, Key Lab of Animal Physiology & Biochemistry, Ministry of Agriculture, Nanjing Agricultural University, China.

**Comparison of the *in vitro* Metabolism of Isoflavones by Fecal Flora from Human Flora-Associated Mice and Human.** M. Tamura<sup>1</sup> and H. Saitoh<sup>2</sup>, <sup>1</sup>National Food Research Institute, Japan, <sup>2</sup>Biotechnology and Food Research Institute, Fukuoka Industrial Technology Center, Japan.

**Assessment of Dietary Isoflavone Intake by the 24-hour Urinary Excretion in Japanese Women.** M. Mori<sup>1</sup>, M. Sagara<sup>1</sup>, H. Mori<sup>2</sup>, and Y. Yamori<sup>1,3</sup>, <sup>1</sup>Research Inst. for Production Development, Kyoto, Japan, <sup>2</sup>Institute for Health

Restoration, Japan, <sup>3</sup>International Center for Research on Primary Prevention of Cardiovascular Diseases, Japan.

**Bioavailability of Soy Isoflavones as Affected by Gender, Age, and Food Matrix in Rats.** E. Sepehr<sup>1,5</sup>, P. Robertson<sup>1</sup>, G.S. Gilani<sup>1</sup>, G.M. Cooke<sup>5</sup>, B.P.-Y. Lau<sup>1</sup>, and J. Fournier<sup>1</sup>, <sup>1</sup>Health Product and Food Branch, Health Canada, Banting Research Centre, Canada, <sup>5</sup>Dept. of Cellular and Molecular Medicine, Faculty of Medicine, University of Ottawa, Canada.

**Intra-Individual Variability of Phytoestrogen Excretion During Three Months Soy Consumption.** S. Rebello<sup>1</sup>, A. Duncan<sup>2</sup>, K. Wangen<sup>1</sup>, W. Thomas<sup>1</sup>, and M. Kurzer<sup>1</sup>, <sup>1</sup>University of Minnesota, USA, <sup>2</sup>University of Guelph, Canada.

**Food Matrix-Assisted Control of Urinary Isoflavone Metabolite Profiles in Humans.** K. Riedl<sup>1</sup>, T. Bohn<sup>1</sup>, M. Rogers<sup>2</sup>, Y. Vodovotz<sup>1</sup>, S. Clinton<sup>1</sup>, and S. Schwartz<sup>1</sup>, <sup>1</sup>The Ohio State University, USA, <sup>2</sup>University of Michigan, USA.

**Pharmacokinetic Characteristics of Bonistein™ (Synthetic Genistein) in Humans.** U. Ullmann<sup>1</sup>, J. Metzner<sup>2</sup>, H. Oberwittler<sup>3</sup>, and J. Elliott<sup>1\*</sup> <sup>1</sup>DSM Nutritional Products, Switzerland, <sup>2</sup>Galmed, Germany, <sup>3</sup>Institute for Clinical Pharmacology, Germany.

**Further Development of a Biomarker of Isoflavone Intake.** J. Mackinnon<sup>1</sup>, E. Vink<sup>1</sup>, A. Blake<sup>2</sup>, T. Rawjee<sup>1</sup>, A. Riches<sup>1</sup>, and M. Ritchie<sup>1</sup>, <sup>1</sup>Bute Medical School, University of St. Andrews, Scotland, <sup>2</sup>Scottish Crop Research Institute, Scotland.

**Monkeys Exhibit Sex Differences in Behavioral and Physiological Responses to a High-Isoflavone, Soy-Based Diet.** J. Kaplan<sup>1</sup>, M. Adams<sup>1</sup>, N. Simon<sup>2</sup>, J. Wagner<sup>1</sup>, and A. Franke<sup>3</sup>, <sup>1</sup>Wake Forest University School of Medicine, USA, <sup>2</sup>Lehigh University, USA, <sup>3</sup>Cancer Research Center of Hawaii, USA.

**Determination of the Factors that Influence the Ability of Equol Production.** S. Vanhemmens, K. Decroos, and W. Verstraete, LabMET, University of Ghent, Belgium.

**Bioavailability of Isoflavones and Flavones Correlates with Human Gut Microbial Degradation.** A. Simons, M. Renouf, S. Lee, S. Hendrich, and P. Murphy\*, Iowa State University, USA.

**Identification of Human Fecal Microorganisms and Human Fecal Microbial DNA Sequences Influencing Isoflavone Degradation: Putative Bioavailability Biomarkers.** M. Renouf, A. Simons, and S. Hendrich\*, Iowa State University, USA.

**Varying Isoflavone Content of Soy Protein Affects Plasma Isoflavones but not Plasma Lipids in Surgically Postmenopausal Monkeys.** J. Kaplan<sup>1</sup>, T. Clarkson<sup>1</sup>, M. Anthony<sup>1</sup>, T. Badger<sup>2</sup>, and H. Chen<sup>1</sup>, <sup>1</sup>Wake Forest University School of Medicine, USA, <sup>2</sup>Arkansas Children's Hospital Research Institute, USA.

**In Vitro Study of Microbial Transformations of Daidzein in a Dynamic Model of the Gastrointestinal Tract.** K. Decroos<sup>1</sup>, E. Eeckhaut<sup>1</sup>, S. Vanhemmens<sup>1</sup>, S. Possemiers<sup>1</sup> and W. Verstraete<sup>1</sup>, <sup>1</sup>Laboratory of Microbial Ecology & Technology (LabMET), Department of Biochemical and Microbial Technology, Ghent University, Belgium.

**Effects of Isoflavone Supplements vs. Soy Foods on Blood Concentrations of Genistein and Daidzein.** C.D. Gardner<sup>1</sup>, L.M. Chatterjee<sup>1</sup>, B.M. Oliveira<sup>1</sup>, and A.A. Franke<sup>2</sup>, <sup>1</sup>Stanford Center for Research in Disease Prevention and the Department of Medicine, Stanford University Medical School, USA, <sup>2</sup>Cancer Research Center of Hawaii, USA.

## Cardiovascular Disease

**Anti-Hypertensive Effects of Nicotianamine in Spontaneously Hypertensive Rat (SHR) and Tukuba Hypertensive Mice (THM).** T. Sato<sup>1</sup>, A. Hayashi<sup>2</sup>, S. Tokutake<sup>1</sup>, A. Matsuyama<sup>1</sup>, M. Kikuchi<sup>1</sup>, and K. Kimoto<sup>2</sup>, <sup>1</sup>R&D Division, Kikkoman Corporation, Japan, <sup>2</sup>Dept. of Food and Nutrition, Tokyo Kasei University, Japan.

**Modulation of Hepatic Thyroid Hormone and Retinoic Acid Receptors May be a Novel Mechanism of Soy Hypolipidemic and Anticarcinogenic Effects.** C.W. Xiao<sup>1,3</sup>, W. Huang<sup>1</sup>, C. Wood<sup>1</sup>, M.R. L'Abbé<sup>1</sup>, G.S. Gilani<sup>1</sup>, G.M. Cooke<sup>2,3</sup>, and I. Curran<sup>2</sup>, <sup>1</sup>Nutrition Research Division, Health Products and Food Branch, Health Canada, Canada, <sup>2</sup>Toxicology Research Division, Health Products and Food Branch, Health Canada, Canada, <sup>3</sup>Dept. of Cellular and Molecular Medicine, University of Ottawa, Canada.

**Effect of Dietary GABA-Enriched Fermented Soybean (GABA-tempeh) on Blood Viscosity of Rats.** N. Watanabe<sup>1</sup>, K. Nakatsugawa<sup>1</sup>, K. Fujimoto<sup>2</sup>, and H. Aoki<sup>3</sup>,



<sup>1</sup>Showa Women's University, Japan, <sup>2</sup>Koriyama Women's University, Japan, <sup>3</sup>Ikeda Tohka Industries Lab., Japan.

## Cognitive Function

**Soy Foods Exposure Predicts Better Baseline Cognitive Function in Healthy Older Adults.** S. Meade<sup>1,2</sup>, N. Lane<sup>1,2</sup>, T. Ohrt<sup>1,2</sup>, S. Asthana<sup>1,2</sup>, and C. Gleason<sup>1,2</sup>, <sup>1</sup>University of Wisconsin, Dept. of Medicine, Sect. of Geriatrics, USA, <sup>2</sup>Madison VA GRECC, USA.

## Saponins

**Interaction Between Soybean Saponin and Protein, and Possible Functionality.** M. Shimoyamada<sup>1</sup>, S. Ikeda<sup>2</sup>, R. Yamauchi<sup>2</sup>, and K. Watanabe<sup>3</sup>, <sup>1</sup>Miyagi University, Japan, <sup>2</sup>Gifu University, Japan, <sup>3</sup>Tokyo University of Agriculture, Japan.

**Development of a Saponin Rich Soybean: Relationship Between Saponin Content and Genes Controlling the Polymorphism of Saponin Composition.** C. Tsukamoto<sup>1</sup>, I. Tayama<sup>1</sup>, Y. Takada<sup>2</sup>, M. Kamada<sup>3</sup>, and K. Kitamura<sup>3</sup>, <sup>1</sup>The Graduate School of Agricultural Sciences, Iwate University, Japan, <sup>2</sup>National Agricultural Research Organization, National Agricultural Research Center for Tohoku Region, Japan, <sup>3</sup>The Graduate School of Agriculture, Hokkaido University, Japan.

**Soy Saponins Display High Content and Profile Variability in Isoflavones Enriched Dietary Supplements.** M. Berger<sup>1</sup>, J. Hubert<sup>2,1</sup>, and J. Daydé<sup>1</sup>, <sup>1</sup>Ecole Supérieure d'Agriculture de Purpan, France, <sup>2</sup>Genibio Recherche, France.

## Session II Poster Presentations Diabetes

**A Novel Functional Food Ingredient—Soy Protein-Catechins Complex.** C. Kuo and S. Chen\*, Food Industry Research & Development Institute, Taiwan, R.O.C.

**Glycemic Response to Selected Soy Foods in Selected Diabetics and Development of Software on Diabetes with Special Reference to Soy and Glycemic Index.** R. Chithra and S. Deepa, PSG College of Arts & Science, India. **Proximate Composition, Glycemic Index, and Glycemic Load of Rice, Diabetic Diet Rice and Soy Incorporated Selected Recipes of India.** R. Chithra, S. Chitralkha, and P. Gayathri, PSG College of Arts & Science, India.

**Dietary Intake of Isoflavones and Lignans is Related to Lower Prevalence of Metabolic Syndrome and**

**Improved Insulin Sensitivity.** Y. van der Schouw, M. Muller, and D. Grobbee, UMC Utrecht, The Netherlands.

**Genistein Inhibits High Glucose-Induced Monocyte-Endothelial Cell Interaction Through a Camp-Dependent Protein Kinase Pathway.** W. Zhen, H. Si, and D. Liu\*, Virginia Polytechnic Institute and State University, USA.

**The Glycemic Index and Insulin Index of Selected Soy Foods.** R.M. Blair<sup>1</sup>, A. Tabor<sup>1</sup>, and E.C. Henley<sup>2</sup>, <sup>1</sup>Physicians Pharmaceuticals Inc., USA; <sup>2</sup>EC Henley Consulting, USA.

## Immune Function

**Genistin at the Concentration Present in Soy-Based Infant Formula Inhibits Rotavirus Infectivity *in vitro* Through Inhibition of Protein Tyrosine Kinase Activity.** A. Andres<sup>1</sup>, S.M. Donovan<sup>1</sup>, T.B. Kuhlenschmidt<sup>2</sup>, and M.S. Kuhlenschmidt<sup>1,2</sup>, <sup>1</sup>Div. Nutritional Sciences, University of Illinois, USA, <sup>2</sup>Dept. Veterinary Pathobiology, University of Illinois, USA.

## Menopausal Symptoms

**Soybean Composite Functional Factors Enhanced the Serum Estradiol Concentration and Superoxide Dismutase Activity in Postmenopausal Women.** D. Li<sup>1,2</sup>, C. Gao<sup>2</sup>, X. Chen<sup>2</sup>, Y. Huang<sup>2</sup>, and X. Li<sup>1</sup>, <sup>1</sup>Dept. of Food Science and Engineering, Changchun University, P.R. China, <sup>2</sup>National Research and Popularize Center for Soybean Refined Processing, P.R. China.

**Effects of a Novel Extract of Daidzein-Rich Isoflavone Aglycone on Dehydroepiandrosterone Production in Japanese Menopausal Woman.** Y. Sato<sup>1</sup> and W. Pan<sup>2,3</sup>, <sup>1</sup>Sophia Ladies Clinic, Japan, <sup>2</sup>Beth Israel Deaconess Medical Center, Harvard Medical School, USA, <sup>3</sup>Nichimo Co., Ltd., Japan.

**Impact of Supplementation of Soybean *Chikki* as a Source of Isoflavin on Plasma Calcium Levels of Menopause Women.** C. Kavitha and K. Krishna Kumari\*, ANGR Agricultural University, India.

## Obesity

**Effects of Dietary Soy on Adipose Tissue, Adipocytokines, and Insulin Sensitivity.** K. Ingram, J. Kaplan, K. Kavanagh, L. Zhang, and J. Wagner, Wake Forest University School of Medicine, USA.



## Osteoporosis

**Effect of Soymilk with and without Isoflavones on Insulin-Like Growth Factor 1. Results from a Two-Year Clinical Study.** E. Lydeking-Olsen<sup>1</sup>, A. Juul<sup>2</sup>, N.E. Skakkebaek<sup>3</sup>, K.D.R. Setchell<sup>4</sup>, and J.-E. Beck Jensen<sup>4</sup>, <sup>1</sup>Institute for Optimum Nutrition, Denmark, <sup>2</sup>Copenhagen University Hospital, Denmark, <sup>3</sup>Childrens Hospital and Medical Center, USA, <sup>4</sup>Copenhagen University Hospital, Denmark.

**Phytoestrogen Excretion is Associated with Improved Markers of Bone Health in Australian Women.** K. Hanna<sup>1</sup>, J. Wong<sup>2</sup>, G. Eaglesham<sup>3</sup>, C. Patterson<sup>1</sup>, S. O'Neill<sup>2</sup>, and P. Lyons-Wall<sup>\*1</sup>, <sup>1</sup>School of Public Health, Queensland University of Technology, Australia, <sup>2</sup>Betty Byrne Henderson Centre, Royal Brisbane & Women's Hospital, Australia, <sup>3</sup>Pathology and Scientific Services, Queensland Health, Australia.

**Effects of Genistein, Polyunsaturated Fatty Acids, and Vitamins D<sub>3</sub> and K<sub>1</sub> on Bone Metabolism in the OVX-Rat Model and the OVX-Dog Model of Osteoporosis.** S. Krammer<sup>2</sup>, U. Wehr<sup>1</sup>, W. Rambeck<sup>1</sup>, and P. Weber<sup>2</sup>, <sup>1</sup>Institute of Animal Physiology, Ludwig-Maximilians-University Munich, Germany, <sup>2</sup>Animal Nutrition and Health R&D, DSM Nutritional Products, Switzerland.

**Supplement of Soy Isoflavone and/or Calcium Can Enhance Bone Density in Growing Rats.** Y. Lin, H. Cheng, and J. Tsai, Dept. of Bioscience Technology, Chung Yuan University, Taiwan.

**Effects of Isoflavone and Calcium on Bone Cell Activities and Their Biomarkers in Growing Rats.** H.-C. Cheng and J. Tsai, Dept. of Bioscience Technology, Chu Yuan Christian University, Taiwan.

**A Novel Extract of Fermented Soybean Germs (AglyMax) Promoted Bone Growth in Ovariectomized Mice Fed a High-Fat Diet.** C. Wang<sup>1</sup>, W. Pan<sup>2,3</sup>, L. Huang<sup>1</sup>, and J. Zhou<sup>2</sup>, <sup>1</sup>Human Nutrition Program, Kentucky State University, USA, <sup>2</sup>Nutrition/Metabolism Lab, Beth Israel Deaconess Medical Center at Harvard Medical School, USA, <sup>3</sup>Biotics R&D Division, Nichimo Co., Ltd., Japan.

**Soy Protein Isolate and Moderate Exercise Independently and Additively Impact Bone Turnover but not Bone Mineral Density in Postmenopausal Women.** E.M. Evans, S.B. Racette, J.O. Holloszy, and D.T. Villareal, Division of Geriatrics and Gerontology,

Department of Internal Medicine, Washington University School of Medicine, USA.

## Other

**Isoflavones Do Not Show Astringent Taste in Soy Foods.** M. Abdullah Al, C. Tsukamoto, and T. Ono, The United Graduate School of Agricultural Sciences, Iwate University, Japan.

**Study on the Development and Characteristics of Chinese Soybean's Health Effects.** X. Mingzhong, Xichang College, China.

**Suitable Control Diets for Use in the Study of Phytoestrogens in, or Derived From, Soybeans.** C. Benton<sup>1</sup>, J. Odum<sup>2</sup>, and G. Tobin<sup>1</sup>, <sup>1</sup>Harlan Teklad, USA, <sup>2</sup>Syngenta Central Toxicology Laboratory, UK.

**Isoflavones Protect Mice from Radiation-Induced Weight Loss.** M. Landauer, J. Kramer, and V. Srinivasan, Armed Forces Radiobiology Research Institute, USA.

**Soybean Extracts Enhance Elastin in Skin.** R. Zhao<sup>1</sup>, J.C. Liu<sup>2</sup>, Ch. Bertin<sup>3</sup>, J.P. Ortonne<sup>4</sup>, M. Seiberg<sup>1</sup>, and V. Iotsova-Stone<sup>\*1</sup>, <sup>1</sup>Skin Research Center, Johnson & Johnson Consumer Products Worldwide, USA, <sup>2</sup>Global Skin Care Growth Platform, Johnson & Johnson Consumer & Personal Products Worldwide, USA, <sup>3</sup>Scientific Affairs, J&J Consumer Europe, France, <sup>4</sup>CPCAD, Hopital l'Archet II, France.

**Streamlining the Qualified Health Claim Process.** A.S. Persad and R.A. Isbrucker, Burdock Group, USA.

**Studies on Antiradical Action of Herbal Extracts From Seasoning and Their Effect on Foods and Human Health.** B. Herskowitz<sup>1</sup>, R. Reznik<sup>2</sup>, C. Ioudkevitch<sup>2</sup>, R. Segal<sup>3</sup>, and D. Moraru<sup>3</sup>, <sup>1</sup>Soglowek Food Industries, Israel, <sup>2</sup>Rad Natural Technologies Ltd., Israel, <sup>3</sup>University Dunarea de Jos, Romania.

**Change of Isoflavone Content During Manufacturing of Chunggukjang, a Traditional Korean Fermented Soyfood.** J.S. Kim<sup>1</sup>, C.H. Jang<sup>1</sup>, J.K. Lim<sup>1</sup>, J.H. Kim<sup>2</sup>, C.S. Park<sup>3</sup>, and D.Y. Kwon<sup>4</sup>, <sup>1</sup>Department of Animal Science & Biotechnology, Kyungpook National University, S. Korea, <sup>2</sup>Department of Food Science & Technology, Gyeongsang National University, S. Korea, <sup>3</sup>Department of Food Science & Technology, Kyunghee University, S. Korea, <sup>4</sup>Korea Food Research Institute, S Korea.



**Preparation of Extruded Snack Food from Green Gram Broken and Sawan Blends.** Daya S. Singh, Aarti Patel, Krishna Tiwari, and S.K. Garg, Department of Post Harvest Process and Food Engineering, College of Agricultural Engineering, India.

**Preparation of Nutritious Extruded Snacks from Soy–Sorghum Blends to Solve the Problem of Malnutrition in Tralal Belt of India.** Daya S. Singh and Duda Kalpana, Department of Post Harvest Process and Food Engineering Faculty Of Agricultural Engineering, J.,N. Agricultural University, India.

### **Skin Health**

---

**Sunscreen Active Derived from Soybean Oil and Ferulic Acid: Synthesis and Applications.** J. Laszlo<sup>1</sup>, D. Compton<sup>1</sup>, and R. Willis<sup>2</sup>, <sup>1</sup>USDA, ARS, NCAUR, USA, <sup>2</sup>SoyTechnologies Corp., USA.

### **Soy Peptides**

---

**Silicon Accumulation in Soybean Plants in Different Rhizosphere pH Conditions.** L. Oliveira<sup>1,2</sup>, E. Oliveira<sup>1</sup>, G. Korndorfer<sup>1</sup>, and S. Tsai<sup>2</sup>, <sup>1</sup>Universidade Federal de Uberlândia, Brazil, <sup>2</sup>Centro de Energia Nuclear, USP, Brazil.

**Enzymatic Production of Soybean Peptides with Potential Anti-Cancer Activity.** E. de Mjia and W. Wang, University of Illinois, USA.

**Are Undigested Soy Peptides the Major Hypocholesterolemic Components of Soy Protein?** J.W. Anderson and K. Patterson, University of Kentucky, USA.