The 21st International Congress on Nutrition and Integrative Medicine

The annual international meeting of AHCC Research Association (ARA), the 21st International Congress on Nutrition and Integrative Medicine (ICNIM), was held on July 27 and 28 at Royton Sapporo (Hokkaido, Japan) with the support of Hokkaido Bureau, Ministry of Economy, Trade and Industry (METI) in recognition of ARA’s continuous international activities regarding accumulation and utilization of scientific evidences of functional foods. It gathered 370 participants including 110 from 20 countries and regions all over the world. A keynote lecture, 21 oral presentations (10 basic studies and 11 clinical studies) and 29 poster presentations (22 basic studies and 7 clinical studies), 51 in total, were presented. Besides AHCC and Oligonol, study results of Perilla Extract and ETAS were reported.

Keynote Lecture

Dr. Philip C. Calder, Professor of Nutritional Immunology, Faculty of Medicine, University of Southampton, Southampton, UK gave the keynote lecture entitled “Role of Nutrition in Supporting Immune Function.” Starting with immunology outline, he presented various data about methods for immune function evaluation, importance of nutrition supporting immune system, interactions between gut immune function and gut microflora and the role of the interaction on host immune system.

Research Awards – Best Research Award to Dr. Tatsuya Hisajima

“Effect of AHCC on the Autonomic Nervous Function” of Dr. Tatsuya Hisajima from Faculty of Health Care, Teikyo Heisei University, Tokyo, Japan was selected for the Best Research Award, and Mr. Toshikazu Masuyama, director of METI Hokkaido awarded Dr. Hisajima. He evaluated AHCC’s reaction on illnesses and health conditions from the aspect of autonomic modulation.

Dr. Hayato Urushima from Department of Complementary and Alternative Medicine, Graduate School of Medicine, Osaka University, Osaka, Japan received the Young Investigator Award, an award given to the most excellent researcher under 40 years old, for his presentation entitled “The Efficacy of Perilla Extract on DSS-induced Colitis (the Second Report).” Dr. Yoshimi Kishimoto from Endowed Research Department “Food for Health”, Ochanomizu University, Tokyo, Japan won the Best Poster Award with her presentation, “Effects of Oligonol on Lipid Metabolism in HepG2 Cells.” These two awards were awarded by Dr. Masuo Hosokawa, chairman of ARA.

This year, a special prize for an advanced and remarkable research project which requires significant amount of resources, with a clear prospect of distinguished results, was newly set as ‘Promising Research Award’ and was given to Dr. Gonzalo C. Banuelos Jr. from St. Frances Cabrini Medical Center and Cancer Institute, Sto. Tomas, Philippines.

All awardees were honored at the Reception held in the evening of July 27.
General Discussion

The points in conducting clinical studies on functional foods were discussed and opinions from academic, economic and ethical points of view were exchanged. Dr. Tenpei Miyaji of the University of Tokyo, Tokyo, Japan outlined standard methods of clinical research for patients on functional foods through activities of Japanese Organization for Research and Treatment of Cancer (JORC). Dr. Jun Nishihira, Hokkaido Information University, Ebetsu, Japan picked up the topic about clinical trial on functional foods for healthy subjects. He explained methods of end point setting, difficulties and challenges compared to studies for patients. Also Dr. Gerald Sonnenfeld, Clemson University, Clemson, USA raised the issue of bio-markers focusing especially on immune parameters in AHCC human trials.

Protocol designing and budget planning were discussed

Subjects of a clinical trial should be determined by the purpose of the trial. When the functional food is used for medical treatment, the subjects should be patients. Healthy subjects should be set for preventive purpose. Expected outcome depends on appropriate protocol designing including subject group selection.

There was also an opinion that it is not always necessary to conduct a well-designed clinical study with high cost, because the effects of the examined functional food can be properly judged by closely monitoring the subjects’ clinical conditions. Another voice advocated that it was more realistic to plan the upmost study within the limited budget.

After meaningful opinion exchange, the vigorous discussion ended on a high note.

AHCC Research Association 2013 Activity Report

Executive Meeting

Executive Meeting was held on June 22, 2013. Approved activity report and plans were distributed to members with this Annual Report instead of holding the General Meeting.

The 21st International Congress on Nutrition and Integrative Medicine (ICNIM 2013)

The 21st annual symposium of ARA was held on July 27-28, 2013 at Royton Sapporo. Best Research Award, Young Investigator Award, and Best Poster Award were presented at the award ceremony held during the reception on July 27. These awards have been established aiming to encourage research of functional foods such as AHCC by recognizing excellent researchers for their outstanding reports. The selection was implemented according to the Research Award Bylaw of ARA at the selection committee approved by Executive Meeting.

Expense:

Expense of this AHCC Research Association is covered by Amino Up Chemical Co., Ltd. There was a support from METI Hokkaido for ICNIM2013 this year also.

Details:

Expenses of hosting ICNIM (annually, including reception)
Expenses of publications (annually)
Expenses of hosting manager’s meeting (annually)
Office expense
Publication list

AHCC

  "Active hexose-correlated compound and Bifidobacterium longum BB536 exert symbiotic effects in experimental colitis"
  Olga Martinez-Augustin, et al. (University of Granada, Spain)

  "The nutritional supplement Active Hexose Correlated Compound (AHCC) has direct immunomodulatory actions on intestinal epithelial cells and macrophages involving TLR/MyD88 and NF-κB/MAKP activation"
  Olga Martinez-Augustin, et al. (University of Granada, Spain)

  "Active Hexose Correlated Compound (AHCC) Alleviates Gemcitabine-Induced Hematological Toxicity in Non-Tumor-Bearing Mice"
  Daisuke Nakamoto, Nishioka Hiroshi, et al. (Amino Up Chemical Co., Ltd., Japan)

- Natural Product Communications, 7(9): 1193-1196 (2012)
  "Oligonol-induced degradation of Perillitin 1 is Regulated through Lysosomal Degradation Machinery"
  Junetsu Ogasawara, Hodeaki Ohno, et al. (Kyorin University, Japan)

- Toxicology Mechanisms and Methods, 22(7): 555-559 (2012)
  "Safety of oligonol, a highly bioavailable lycée-derived polyphenolic antioxidant, on liver, kidney and heart function in rats"
  Manashi Bagchi, et al. (NutriToday LLC, USA)

- Cellular and Molecular Life Sciences, 70(8): 1451-1467 (2013)
  "Stabilization of human interferon-α1 mRNA by its antisense RNA"
  Tominori Kimura, Tadayoshi Okumura, et al. (Ritsumeikan University, Japan)

- The Journal of Trauma and Acute Care Surgery, 74(6): 1411-1418 (2013)
  "A natural immune modulator attenuates stress hormone and catecholamine concentrations in polymicrobial peritonitis"
  Katie M. Love, William G. Cheadle, et al. (University of Louisville, USA)

  "Effect of Active Hexose-Correlated Compound in Women Receiving Adjuvant Chemotherapy for Breast Cancer: A Retrospective Study"
  Sho Hangai, Satoru Iwase, et al. (The University of Tokyo, Japan)

  "An Evidence-Based Systematic Review of Active Hexose Correlated Compound (AHCC) by the Natural Standard Research Collaboration"
  Catherine Ulbricht, Regina C. Windsor (Natural Standard Research Collaboration, Somerville, USA), et al.

  "Disruption of endothelial adherens junction by invasive breast cancer cells is mediated by reactive oxygen species and is attenuated by AHCC."
  Mehtran Haidari (The University of Texas Health Science Center at Houston), et al.

Oligonol

  "Functional Analysis of Oligonol by Novel Neutrophil Activity Measurement System"
  Yuichi Mori, et al. (Waseda University, Japan)

  "Oligonol Supplementation Attenuates Body Temperature and the Circulating Levels of Prostaglandin E2 and Cyclooxygenase-2 After Heat Stress in Humans."
  Jeong-Beom Lee, Hun-Mo Yang, et al. (Soonchunhyang University, Korea)

- Cryobiology, 67: 40-49 (2013)
  "Analysis of supercooling activity of tannin-related polyphenols"
  Seizo Fujikawa, et al. (Hokkaido University, Japan)

  "Oligomerized lycée fruit-derived polyphenol attenuates cognitive impairment in senescence-accelerated mice and endoplasmic reticulum stress in neuronal cells"
  Takuya Sakurai, Hidenri Ohno, et al. (Kyorin University, Japan)

- Antioxidants & Redox Signaling, 19(2): 102-114 (2013)
  "Oligonol Inhibits Dextran Sulfate Sodium-Induced Colitis and Colonic Adenoma Formation in Mice"
  Hye-Won Yum, Young-Joon Surrh, et al. (Seoul National University, Korea)

  "Exercise and oxidative stress in hypoxia"
  Junichi Nagasawa, et al. (The University of Electro-Communications)

Perilla Extract

- AgroFOOD industry hi-tech, 23(5): 38-41 (2012)
  "Investigation of a Perilla frutescens special extract. Anti-inflammatory and immune-modulatory properties"
  Sybille Buchwald-Werner (Vital Solutions GmbH, Germany), et al.

  "Testing of Perilla frutescens extract and Vicenin 2 for their antispasmodic effect"
  Sybille Buchwald-Werner (Vital Solutions GmbH, Germany), et al.

ETAS

  "Isolation, Structural Elucidation, and Biological Evaluation of a 5-Hydroxymethyl-2-furfural Derivative, Asfural, from Enzyme-Treated Asparagus Extract"
  Tomohiro Ito, Hiroshi Nishioka (Amino Up Chemical Co., Ltd., Japan), Hideyuki Matsuura (Hokkaido University, Japan), et al.

  "Oligonol Supplementation Attenuates Body Temperature and the Circulating Levels of Prostaglandin E2 and Cyclooxygenase-2 After Heat Stress in Humans."
  Jeong-Beom Lee, Hun-Mo Yang, et al. (Soonchunhyang University, Korea)

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  "Exercise and oxidative stress in hypoxia"
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AHCC

- The 34th ESPEN Congress (Barcelona, Spain)
  August 29-31, 2012
  “Adenosine, a hepato-protective compound in AHCC”
  Hirokazu Miki, A-Hon Kwon, et al. (Kansai Medical University)

- Ninth International Conference of SIO (Albuquerque, USA)
  October 8-10, 2012
  “Evaluation of active hexose correlated compound (AHCC) in combination with cisplatin for the prevention or delay of tumor growth in human cervical cancer xenograft model”
  Judith Smith, Larissa Meyer, et al. (The University of Texas, MD Anderson Cancer Center)

- Clinical Nutrition Week 2013 (Phoenix, USA)
  February 9-12, 2013
  “Effect of Active Hexose-Correlated Compound in Woman Receiving Adjuvant Chemotherapy for Breast Cancer: A Retrospective Study”
  Tempei Miyaji et al. (The University of Tokyo)

- SIO 2013
  Oct 20-22, 2013
  “AHCC as Nutritional Supplement in Patients with a History of Cancer: Preliminary Results”
  Cosima Lupoli, et al.

- Oligonol

- The 86th Annual Meeting of The Japanese Pharmacological Society (Fukuoka, Japan)
  March 21-23, 2013
  “Oligonol inhibited the NADPH oxidase activity and preserved the insulin signal in endothelial cells under diabetic conditions”
  Hiroki Yokoo, et al. (University of Toyama)

- Experimental Biology 2013 (Boston, USA)
  April 20-24, 2013
  “Anti-stress Effect of Enzyme-Treated Asparagus extract (ETAS)”
  Shotaro Kudo et al. (Amino Up Chemical Co., Ltd.)

- ISNFF Annual Conference 2012 (Hawaii, USA)
  December 2-6, 2012
  “A novel function of enzyme-treated asparagus extract: Its effectiveness for stress reduction, and potential use for prevention of sleep disorders”
  Jun Nishihira, et al. (Hokkaido Information University)

- ISNFF 2013 Annual Conference & Exhibition
  Nov 5-9, 2013
  “Enzyme-treated asparagus effectively works for stress reduction as well as quality of sleep”
  Jun Nishihira, et al. (Hokkaido Information University)

- Neuroscience 2013
  Nov 9-13, 2013
  “Protective effects of phytochemicals against memory dysfunction in rats”
  Tomoko Koda, Hideki Imai (Tokyo Healthcare University, Japan), et al.

ETAS

- The 6th International Niigata Symposium on Diet and Health (Niigata, Japan)
  October 16-17, 2012
  “The enzyme-treated Asparagus officinalis extract shows anti-stress effects in neural cells and prevents cognitive impairment in senescence-accelerated mice”
  Takuya Sakurai, Hideki Ohno, et al. (Kyorin University)

- ISNFF 2013 Annual Conference & Exhibition
  Nov 5-9, 2013
  “Enzyme-treated asparagus effectively works for stress reduction as well as quality of sleep”
  Jun Nishihira, et al. (Hokkaido Information University)

- NAPA 2013 (International Conference on Nutrition and Physical Activity in Aging, Obesity and Cancer)
  Aug 14-17, 2013
  “A Novel Functional Constituent Extracted from Enzyme-Treated Asparagus Effectively Works for Stress Reduction as well as Prevention of Sleep Disorders”
  Jun Nishihira, et al. (Hokkaido Information University)

- 35th ESPEN Congress
  Aug 31 - Sep 3, 2013
  “Effect of ETAS on Psychological Stress in a Clinical Trial”
  Tatsuya Hisajima, et al. (Teikyo Heisei University)

- ISNFF 2013 Annual Conference & Exhibition
  Nov 5-9, 2013
  “Enzyme-treated asparagus effectively works for stress reduction as well as quality of sleep”
  Jun Nishihira, et al. (Hokkaido Information University)

GCP

- Ninth International Conference of SIO (Albuquerque, USA)
  October 8-10, 2012
  “Integrated and individualized intervention with Metabolic Stem Cell (MSC) system”
  Kazuhisa Maeda, Toshinori Ito, et al. (Osaka University)