

## 2005 Garlic Symposium

# “Significance of Garlic and its Constituents in Cancer and Cardiovascular Disease”

*April 9-11, 2005  
at Georgetown University  
Conference Center, Washington, DC*

Sponsored by:

Harbor-UCLA Medical Center

Strang Cancer Prevention Center *affiliated with Weill Medical College at Cornell University*

Co-sponsored by:

American Botanical Council

American Society for Nutritional Sciences

LifeExtension Foundation

Susan Samueli Center for Integrative Medicine at University of California, Irvine

Continuing Medical Education Credits Provided by:

The American College of Nutrition

## 2005 International Garlic Symposium Program

**Date:** April 9-11, 2005

**Venue:** Georgetown University Conference Center, Washington, D.C., USA

**Chairman:** Dr. Richard S. Rivlin (Weill Medical College of Cornell University, NY, USA)

Dr. Matthew Budoff, (Harbor-UCLA Medical Center, UCLA School of Medicine, CA, USA)

**Theme:** Significance of Garlic and its Constituents in Cancer and Cardiovascular Disease

**Sunday, April 10, 2005**

### **Session I: Overview**

Richard Rivlin, Session Chairman (Weill Medical College of Cornell University, New York, USA)

- Is Garlic Alternative Medicine?  
Richard Rivlin (Weill Medical College of Cornell University, NY, USA)
- Intake of Garlic and its Bioactive Components.  
Harunobu Amagase (Wakunaga of America, Co., Ltd., CA, USA)
- Metabolism of Garlic and Garlic Containing Dietary Supplements.  
Robert Rosen (Rutgers University, New Jersey, USA)
- European Perspective of Garlic and its Regulation.  
Burt H. Kroes (Universitate Utrecht/Dutch Medical Evaluation Agency, The Netherlands)

### **Session II: Cardiovascular Effects of Garlic**

Matthew Budoff, Session Chairman (UCLA School of Medicine, CA, USA)

- Garlic and Cardiovascular Disease.  
Khalid Rahman (Liverpool John Moores University, United Kingdom)
- Inhibition of Coronary Arterial Plaque Accumulation by Garlic.  
Matthew Budoff (UCLA School of Medicine, CA, USA)

### **Session III: Preventive and Therapeutic Effects of Garlic Against Cancer**

David Heber, Session Chairman (UCLA School of Medicine, CA, USA)

- The Shandong Intervention Trial (SIT) for Studying Garlic Supplements to Reduce the Prevalence of Precancerous Gastric Lesions.  
Mitchell Gail (National Cancer Institute, Maryland, USA)
- Preclinical Perspective on Garlic and Cancer.  
John Milner (National Cancer Institute, Maryland, USA)

**Poster Session:**

- Effect of Aged Garlic Extract on Calcium Mobilization in Human Platelets.  
Gillian L. Allison, GM Lowe and K Rahman (Liverpool John Moores University, UK)
- Role of NO in the Blood Pressure Lowering Effect of Garlic in the 2K-1C Model of Hypertension.  
Khaled AI-Qattan, M Thomson, S AI-Mutawa'a and M Ali (Kuwait University, Kuwait)
- Garlic and Aging: Antioxidants and the Heart-Dementia Risk Link.  
Carmia Borek (Tufts University School of Medicine, MA, USA)
- Aged Garlic Extract (AGE) Ameliorates the Blood Pressure More Safely Than Raw Garlic in Hypertensive Rats.  
Toru Moriguchi, A Harauma (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan)
- Chemopreventive Effect of Garlic Extract on Dimethylhydrazine-Induced Colon Tumors in Rats.  
Keiji Hirata, T Katsuki, H Itoh (University of Occupational & Environmental Health, Kitakyushu, Japan), H. Ishikawa (Hyogo College of Medicine, Osaka, Japan), N Matsuura (Osaka University Graduate School of Medicine, Osaka, Japan), S Sumi (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan)
- Protective Effect of Aged Garlic Extract (AGE) Against the Methotrexate (MTX)-Induced Apoptotic Cell Injury of IEC-6 Cells.  
Toshiharu Horie, T Li, K Ito (Chiba University, Chiba, Japan), S Sumi, T Fuwa (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan)
- Aged Garlic Extract Inhibits Homocysteine-Induced CD36 Expression and Foam Cell Formation in Human Macrophages.  
Nagatoshi Ide, C Keller and N Weiss (University of Munich Medical Center, Germany)

- Tetrahydro- $\beta$ -carboline Derivatives: Antioxidants Produced by Natural Aging Process of Garlic.  
Makoto Ichikawa, J Yoshida, N Ide, T Sasaoka, H Yamaguchi and K Ono (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan)
- Japan Hereditary Non-Polyposis Colorectal Cancer Prevention Study (J-HNPCC-PSTUDY): An Introduction to the Protocol.  
Hideki Ishikawa and J-HNPCC-P Study Group (Hyogo College of Medicine, Osaka, Japan)
- Aged Garlic Extract Prevents a Decline of NK Cell Number and Activity in Patients with Advanced Cancer.  
Hideki Ishikawa<sup>1</sup>, T Saeki<sup>1</sup>, T Otani<sup>2</sup>, T Suzuki<sup>2</sup>, K Shimozuma<sup>3</sup>, H Nishino<sup>4</sup>, S Fukuda<sup>5</sup> and K Morimoto<sup>5</sup> (<sup>1</sup>Hyogo College of Medicine, Japan, <sup>2</sup>Osaka Medical Center for Cancer and Cardiovascular Diseases, Japan, <sup>3</sup>University of Marketing and Distribution Sciences, Japan, <sup>4</sup>Kyoto Prefectural University of Medicine, Japan, <sup>5</sup>Osaka University Graduate School of Medicine, Japan)
- Aged Garlic Extract Maintains Cardiovascular Homeostasis.  
Naoaki Morihara, I Sumioka, N Ide, T Moriguchi, N Uda, E Kyo (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan)
- Speciation Effects of Allyl Sulfur Compounds on Abberant Crypt Formation.  
Sharon Ross, JW Finley, P Leary, B Gregoire, J Milner (National Cancer Institute, USA)
- Clinical Effects of Aged Garlic Extract (AGE) on Colorectal Adenomas: A Double-Blind Study.  
Shinji Tanaka, K Haruma, M Kunihiro, S Nagata, Y Kitadai, N Manabe, M Sumi, M Yoshihara, G Kajiyama, K Chayama (Hiroshima University Hospital, Hiroshima, Japan)
- Inclusion of Garlic in the Diet Could Be Beneficial in Lowering Blood Glucose, Cholesterol and Triglycerides.  
Martha Thomson, K Khaled, AI-Qattan, T Bordia and M Ali (Kuwait University, Kuwait)
- Enrichment of Selenium in Garlic by the Hydroponic Cultivation.  
Tadamitsu Tsuneyoshi, J Yoshida and T Sasaoka (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan)
- Chemopreventive Effect of Aged Garlic Extract on Induction of Preneoplastic Altered Hepatic Foci.  
Naoto Uda, N Kashimoto, I Sumioka, E Kyo, S Sumi (Wakunaga Pharmaceutical Co., Ltd., Hiroshima, Japan) and S Fukushima (Osaka City University Medical School, Osaka, Japan)

**Monday, April 11, 2005**

**Session IV: Mechanism of the Garlic Action in Cardiovascular Diseases**

Khalid Rahman, Session Chairman (Liverpool John Moores University, United Kingdom)

- Aged Garlic Extract Reduced Plasma Homocysteine Level in Folic Acid Deficient Rats.  
Yu-Yan Yeh (Pennsylvania State University, Pennsylvania, USA)
- Influence of Garlic on Endothelial Dysfunction in Hyperhomocysteinemia.  
Norbert Weiss (Klinikum der Universität München, Germany)
- Mechanism of Inhibition of Cholesterol Synthesis in Hepatoma Cells by Garlic.  
Todd Porter (University of Kentucky, College of Pharmacy, Kentucky, USA)
- Effects of Garlic on LDL Oxidation and its Role in Cardiovascular Diseases.  
Benjamin Lau (Loma Linda University Medical School, CA, USA)
- Mechanism of Inhibition of Platelet Aggregation by Garlic and its Constituents.  
Khalid Rahman (Liverpool John Moores University, United Kingdom)

**Session V: Clinical Aspects of Garlic Therapy**

Mary-Frances Picciano, Session Chairman (Office of Dietary Supplement, NIH, Rockville, Maryland, USA)

- Sickle Cell Anemia and Anti-Oxidant Functions of Garlic.  
Yutaka Niihara (UCLA School of Medicine, CA, USA)
- Anti-glycation Properties of Aged Garlic Extract: Possible Role in Prevention of Diabetic Complications.  
Nessar Ahmed (Manchester Metropolitan University, United Kingdom)
- Drug-Interactions with Garlic through Cytochrome P450 Mediated Metabolism.  
David Greenblatt (Tufts University, Massachusetts, USA)
- Coumadin-Garlic Interaction in the Deep Vein Thrombosis Patients.  
Henry Macan (UCLA School of Medicine, CA, USA)

## **Session VI: Mechanism of the Garlic Action in Oncology**

John Milner, Session Chairman (National Cancer Institute, Maryland, USA)

- Animal Models and Cancer Chemoprevention by Garlic.  
Michael Wargovich (University of South Carolina, South Carolina, USA)
- Antiproliferative Effects of Garlic and its Potential Chemopreventive Activity.  
John Pinto (Burke Medical Research Institute, NY, USA)
- Mechanism on Cancer Chemoprevention by Garlic Extract.  
Nariaki Matsuura (Osaka University, Japan)
- Cancer Chemoprevention by Garlic and Garlic-Containing Selenium and Sulfur Compounds.  
Karam EI-Bayoumy (Pennsylvania State University, School of Medicine, Pennsylvania, USA)