Tuesday, October 20, 2009

4:00 p.m. - 8:00 p.m.  Registration at Hyatt Regency Hotel

Wednesday, October 21, 2009

7:30 a.m. - 8:30 a.m.  Registration at Natcher Conference Center, National Institutes of Health (NIH)

8:30 a.m. - 9:00 a.m.  Welcome
Artemis P. Simopoulos, President, ISNN, Washington, DC
John A. Milner, National Cancer Institute (NCI), NIH, Bethesda, MD

Session 1:  Frontiers in Nutrigenetics
Cochairs:  Artemis P. Simopoulos, President, International Society of Nutrigenetics/Nutrigenomics (ISNN), Washington, DC
John A. Milner, NCI, NIH, Bethesda, MD

9:00 a.m. - 9:25 a.m.  Opportunities and Challenges in Nutrigenetics/Nutrigenomics and Health
Raffaele De Caterina, Gabriele d'Annunzio University, Chieti, Italy

9:25 a.m. - 9:30 a.m.  Discussion

9:30 a.m. - 9:55 a.m.  Role of Human Genetic Variation in Nutritional Epidemiology Research
David J. Hunter, Harvard School of Public Health, Boston, MA

9:55 a.m. - 10:00 a.m.  Discussion

10:00 a.m. - 10:25 a.m.  Assessing Gene-Environment Interactions
TBD

10:25 a.m. - 10:30 a.m.  Discussion

10:30 a.m. - 10:50 a.m.  Break

Session 1:  Frontiers in Nutrigenetics (continued)
Cochairs:  Cindy D. Davis, NCI, NIH, Bethesda, MD
Sergio Muntoni, Center for Metabolic Diseases and Atherosclerosis, Cagliari, Italy

10:50 a.m. - 11:15 a.m.  Copy Number Variation and Human Dietary Adaptations From an Evolutionary Perspective
Anne C. Stone, Arizona State University, Tempe, AZ

11:15 a.m. - 11:20 a.m.  Discussion

11:20 a.m. - 11:45 a.m.  Copy Number Variation, Purified Eicosapentaenoic Acid, and Central Nervous System Disorders
Mehar S. Manku, Amarin Pharmaceuticals Ltd., Oxford, United Kingdom
11:45 a.m. - 11:50 a.m. Discussion

11:50 a.m. - 1:20 p.m. Lunch

**Session 2:** Frontiers in Nutrigenetics *(continued)*
Cochairs: Jack A. Yanovski, Eunice Kennedy Shriver National Institute of Child Health and Human Development, NIH, Bethesda, MD
Louis Pérusse, Laval University, Quebec City, Quebec, Canada

1:20 p.m. - 1:45 p.m. FTO Variants Are Associated With Overeating and Many Long-Term Health Problems Associated With Obesity
Colin N.A. Palmer, University of Dundee, Dundee, United Kingdom

1:45 p.m. - 1:50 p.m. Discussion

1:50 p.m. - 2:15 p.m. Genotype-Dependent Response to Energy-Restricted Diets in Obese Subjects
J. Alfredo Martínez, University of Navarra, Pamplona, Spain

2:15 p.m. - 2:20 p.m. Discussion

2:20 p.m. - 2:45 p.m. The Genetics of Hypertension and Salt Sensitivity
Steven C. Hunt, The University of Utah, Salt Lake City, UT

2:45 p.m. - 2:50 p.m. Discussion

2:50 p.m. - 3:10 p.m. Break

**Session 2:** Frontiers in Nutrigenetics *(continued)*
Cochairs: Raffaele De Caterina, Gabriele d’Annunzio University, Chieti, Italy
David M. Klurfeld, Agricultural Research Service (ARS), U.S. Department of Agriculture (USDA), Beltsville, MD

3:10 p.m. - 3:35 p.m. Physiological Significance of SNPs: The Folate Example
Cornelia M. Ulrich, Fred Hutchinson Cancer Research Center, Seattle, WA/
German Cancer Research Center, Heidelberg, Germany

3:35 p.m. - 3:40 p.m. Discussion

3:40 p.m. - 4:05 p.m. Xenobiotic Metabolizing Genes, Meat Intake, and Risk of Advanced Colorectal Adenoma
Rashmi Sinha, NCI, NIH, Bethesda, MD

4:05 p.m. - 4:10 p.m. Discussion

4:10 p.m. - 4:35 p.m. Genomics of a Slothful Lifestyle: Insights From a Founder Population
Alan R. Shuldiner, University of Maryland, Baltimore, MD

4:35 p.m. - 4:40 p.m. Discussion

4:40 p.m. - 5:05 p.m. FADS 2 Polymorphisms Modify the Effect of Breastfeeding on Child IQ
Joseph R. Hibbeln, National Institute on Alcohol Abuse and Alcoholism (NIAAA), NIH, Bethesda, MD

5:05 p.m. - 5:10 p.m. Discussion
Thursday, October 22, 2009

Session 3: Frontiers in Epigenetics
Cochairs: Pamela E. Starke-Reed, NIDDK, NIH, Bethesda, MD
Enitan Bababunmi, University of Ibadan, Ibadan, Nigeria

8:15 a.m. - 8:40 a.m.  Interindividual Epigenetic Variation: When, Why, and So What?
Robert A. Waterland, Baylor College of Medicine/USDA Children’s Nutrition Research Center, Houston, TX

8:40 a.m. - 8:50 a.m.  Discussion

8:50 a.m. - 9:15 a.m.  Diet and Genomic Modification
Alan Jackson, University of Southampton, Southampton, UK

9:15 a.m. - 9:25 a.m.  Discussion

9:25 a.m. - 9:50 a.m.  The New Epigenetics: Adaptability and Diversity Through Fidelity
Robert H. Lane, The University of Utah, Salt Lake City, UT

9:50 a.m. - 10:00 a.m.  Discussion

10:00 a.m. - 10:25 a.m.  Choline: Its Interaction With SNPs and Epigenetic Control
Steven H. Zeisel, The University of North Carolina at Chapel Hill, Chapel Hill, NC

10:25 a.m.-10:35 a.m.  Discussion

10:35 a.m. - 10:45 a.m.  Break

Session 3: Frontiers in Epigenetics (continued)
Cochairs:  John Paul SanGiovanni, National Eye Institute, NIH, Bethesda, MD
Lisa A. Spence, National Dairy Council, Rosemont, IL

10:45 a.m. - 11:10 a.m.  Dietary Polyphenols Mediate Regulation of Oxidative Stress and Chromatin Remodeling in Inflammation
Irfan Rahman, University of Rochester, Rochester, NY

11:10 a.m. - 11:20 a.m.  Discussion

11:20 a.m. - 11:45 a.m.  Dietary Manipulation of Histone Structure and Function
Emily Ho, Oregon State University, Corvallis, OR

11:45 a.m. - 11:55 a.m.  Discussion

11:55 a.m. - 12:55 p.m.  Lunch

Session 4: The Impact of Transcriptomics on Nutrigenomics
Cochairs:  Edwin Mariman, Maastricht University, Maastricht, The Netherlands
Antonio Velazquez, Universidad Nacional Autonoma de Mexico, Mexico City, Mexico
Nrf2 Mediates Cancer Protection but Not Longevity Induced by Caloric Restriction
Kevin J. Pearson, University of Kentucky, Lexington, KY

Dietary and Lifestyle Interventions Alter Human Gene Expression
Per-Arne Svensson, Gothenburg University, Gothenburg, Sweden

Laboratory Diet Profoundly Alters Gene Expression and Confounds Genomic Analysis
Joshua W. Hamilton, Woods Hole Marine Biological Laboratory, Woods Hole, MA/Dartmouth College, Hanover, NH/Brown University, Providence, RI

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Toxicogenomic Concepts Applicable to Studies of the Genomic Effects of Dietary Components
Karol L. Thompson, U.S. Food and Drug Administration (FDA), Silver Spring, MD

Friday, October 23, 2009

Session 5: Noncoding RNAs and Posttranslational Gene Regulation
Cochairs: Young S. Kim, NCI, NIH, Bethesda, MD
Charles N. Serhan, Brigham and Women's Hospital/Harvard Medical School, Boston, MA

Dietary Regulation of microRNA Expression in Cancer Cells
Sharon A. Ross, NCI, NIH, Bethesda, MD

Dietary Methyl Deficiency, microRNA Expression, and Susceptibility to Liver Carcinogenesis
Igor P. Pogribny, FDA, Jefferson, AR

Alcohol, miRNA Expression, and Its Role in Alcoholic Liver Disease
Yeuming Tang, Rush University, Chicago, IL

Break
Session 6: Moving Beyond Genomics  
Chair: Jing X. Kang, Massachusetts General Hospital/Harvard Medical School, Boston, MA

10:10 a.m. - 10:35 a.m.  
Redox Dysregulation and Oxidative Stress in Schizophrenia: Nutrigenetics as a Challenge in Psychiatric Disease Prevention  
Kim Q. Do, Lausanne University Hospital, Lausanne, Switzerland

10:35 a.m. - 10:45 a.m.  
Discussion

10:45 a.m. - 11:10 a.m.  
Utilizing Animal Models To Understand Complex Diseases and Dietary Influences: Obesity as an Example  
Daniel Pomp, The University of North Carolina at Chapel Hill, Chapel Hill, NC

11:10 a.m. - 11:20 a.m.  
Discussion

11:20 a.m. - 11:45 a.m.  
Using Pathway Analysis To Go Beyond Simple Genomics  
Chris Evelo, Maastricht University, Maastricht, The Netherlands

11:45 a.m. - 11:55 a.m.  
Discussion

11:55 a.m. - 12:20 p.m.  
Metabolomics in the Study of Aging and Caloric Restriction  
Bruce S. Kristal, Harvard Medical School/Brigham and Women’s Hospital, Boston, MA

12:20 p.m. - 12:30 p.m.  
Discussion

12:30 p.m. - 1:30 p.m.  
Lunch

Session 7: Frontiers in Nutrigenetics/Nutrigenomics: Building Partnerships  
Cochairs: Artemis P. Simopoulos, President, ISNN, Washington, DC  
John A. Milner, NCI, NIH, Bethesda, MD

1:30 p.m. - 1:55 p.m.  
Opportunities and Challenges for the U.S. Food and Drug Administration (FDA)  
Claudine J. Kavanaugh, FDA, Rockville, MD

1:55 p.m. - 2:05 p.m.  
Discussion

2:05 p.m. - 2:30 p.m.  
Opportunities and Challenges for the U.S. Department of Agriculture (USDA)  
Joseph T. Spence, USDA, Beltsville, MD

2:30 p.m. - 2:40 p.m.  
Discussion

2:40 p.m. - 3:05 p.m.  
The Assessment of Diet-Genome Interactions and Their Translation for Public Health Impact: Opportunities and Challenges for the Centers for Disease Control and Prevention (CDC)  
Renée M. Ned, CDC, Atlanta, GA

3:05 p.m. - 3:15 p.m.  
Discussion

3:15 p.m. - 3:40 p.m.  
Genes, Agriculture, Human Health, and the Climate Issue: Opportunities and Challenges  
Ole Faergeman, Aarhus University, Aarhus, Denmark

3:40 p.m. - 3:50 p.m.  
Discussion
3:50 p.m. - 4:00 p.m. Break

4:00 p.m. - 4:25 p.m. Building Industry-Academia Partnerships
Peter J. Gillies, Dupont, Wilmington, DE

4:25 p.m. - 4:50 p.m. Tailoring New Zealand Foods To Match People's Genes
Lynnette R. Ferguson, The University of Auckland, Auckland, New Zealand

4:50 p.m. - 5:20 p.m. General Discussion

5:20 p.m. - 5:35 p.m. Adjournment
Raffaele De Caterina, Gabriele d'Annunzio University, Chieti, Italy

Planning Committee

Chairpersons: John A. Milner, NCI, NIH
Artemis P. Simopoulos, ISNN

Participants: Cindy D. Davis, NCI, NIH
Joseph R. Hibbeln, NIAAA, NIH
David M. Klurfeld, ARS, USDA
John Paul SanGiovanni, NEI, NIH
Pamela E. Starke-Reed, NIDDK, NIH