Nutritional Genomics and Proteomics in Cancer Prevention Conference

Agenda

Thursday, September 5, 2002

7:30 to 8:20 AM *Registration*

Session I: Opening Remarks and Welcome

8:20 to 8:25 AM Opening remarks. **Young S. Kim**, Nutritional Science Research Group, Division of Cancer Prevention, NCI, NIH, Bethesda, MD.

8:25 to 8:30 AM Welcome. **Alan S. Rabson**, Deputy Director, NCI, NIH, Bethesda, MD. **John A. Milner**, Division of Cancer Prevention, NCI, NIH, Bethesda, MD.

Session II: Setting the Stage

8:30 to 9:00 AM Diet, individual responsiveness, and cancer prevention. **Michael J. Wargovich**, Division of Basic Research, South Carolina Cancer Center, Columbia, SC.

9:00 to 9:30 AM The use of genetically altered mice for nutrition studies. **Jeff E. Green**, Laboratory of Cell Regulation and Carcinogenesis, NCI, Bethesda, MD.

9:30 to 10:00 AM The use of microarray: Challenges for nutritionists. **Leonard H. Augenlicht**, Medicine and Cell Biology, Albert Einstein Cancer Center, Bronx, NY.

Session III: Nutritional Genomics in Cancer Processes

A. Apoptosis/ Cell Cycle - (Moderator: **Jeff E. Green**, Laboratory of Cell Regulation and Carcinogenesis, NCI, Bethesda, MD)

10:00 to 10:25 AM Oncogenic transformation as an activator of apoptosis. **Yuri Lazebnik**, Cold Spring Harbor Laboratory, Cold Spring Harbor, NY.

10:25 to 10:50 AM Cell-cycle dysregulation and the induction of apoptosis by =**green tea** constituent (-)-epigallocatechin-3-gallate in human prostate carcinoma cells. **Hasan Mukhtar**, Division of Dermatology, University of Wisconsin, Madison, WI.

10:50 to 11:00 AM Morning Break

11:00 to 11:25 AM Role of mitochondria and caspases in **vitamin D**-mediated apoptosis of MCF-7 breast cancer cells. **JoEllen Welsh**, Department of Biology, University of Notre Dame, IN.

11:25 to 11:50 PM Translocation of Bax to mitochondria induces apoptotic cell death in **indole-3-carbinol** (I3C) treated breast cancer cells. **Fazlul H. Sarkar**, Department of Pathology, Wayne State University School of Medicine, Detroit, MI

11:50 to 12:10 PM Discussion

12:10 to 1:10 PM Lunch Break (Lunch, on your own)

B. Cell Signaling - (Moderator: **Stephen Hursting**, Division of Cancer Prevention and Center for Cancer Research, NCI, NIH, Bethesda, MD)

1:10 to 1:35 PM Signal Transduction by the JNK Group of MAP Kinases: Role of JNK in Tumor Development, **Roger J. Davis**, Howard Hughes Medical Institute, Department of Molecular Medicine, University of Massachusetts Medical Center, Worcester, MA.

1:35 to 2:00 PM Effects of **resveratrol** on the regulation of phorbol ester-responsive protein kinases. **Catherine A. O'Brian**, Department of Cancer Biology, The University of Texas, M.D. Anderson Cancer Center, Houston, TX

2:00 to 2:25 PM **Vitamin E** reduces chromosomal damage and inhibits hepatic tumor formation in a transgenic mouse model. **Snorri S. Thorgeirsson**, Laboratory of Experimental Carcinogenesis, NCI, Bethesda, MD.

2:25 to 2:45 PM Discussion

2:45 to 3:00 PM Afternoon Break

C. Nuclear Factors - (Moderator: **Young S. Kim**, Nutritional Science Research Group, Division of Cancer Prevention, NCI, NIH)

3:00 to 3:25 PM Nuclear receptors and **lipid** physiology. **Steven Kliewer, Ph.D.**, Department of Molecular Biology, University of Texas, Southwestern Medical Center, Dallas, TX

3:25 to 3:50 PM **Indole-3-carbinol** inhibits CDK6 expression in human MCF-7 breast cancer cells by disrupting Sp1 transcription factor interactions with a composite element in the CDK6 gene promoter. **Gary L. Firestone**, Department of Molecular and Cell Biology, University of California at Berkeley, CA

3:50 to 4:15 PM Involvement of **all-trans-retinoic acid** in the breakdown of retinoic acid receptors alpha and gamma through proteasomes in MCF-7 human breast cancer cells. **Luigi De Luca**, Laboratory of Cellular Carcinogenesis and Tumor Promotion, NCI, Bethesda, MD.

4:15 to 4:40 PM p53-independent cell cycle arrest and apoptosis via **butyrate**-inducable ZBP-89. **Juanita L. Merchant**, Department of Internal Medicine and Physiology, Division of Gastroenterology, University of Michigan, Ann Arbor, Mighican

4:40 to 5:00 PM Discussion

7:00 to 9:00 PM Reception, Bethesda Marriott Hotel, Bethesda, MD.

Friday, September 6, 2002

8:30 to 9:00 AM - *Registration*

Continuation of Session III: Nutritional Genomics in Cancer Processes

D. Hormonal Regulation - (Moderator: **James A. Crowell**, Chemopreventive Agent Development Research Group, NCI, NIH, Behesda, MD)

9:00 to 9:25 AM Molecular Profiling of Human Prostate Cancer and Benign Prostatic Hyperplasia, **William B. Isaacs**, Brady Urological Institute, Johns Hopkins Medical Institutions, Baltimore, MD.

9:25 to 9:50 AM **1alpha, 25-dihydroxyvitamin D3** inhibits prostate cancer cell growth by androgen-dependent and androgen-independent mechanisms. **David Feldman**, Department of Medicine, Stanford University School of Medicine, Stanford, CA.

9:50 to 10:15 AM Molecular Determinants for the Tissue Specificity of SERMS". **Myles Brown**, Department of Adult Oncology, Dana-Farber Cancer Institute, Boston, MA.

10:15 to 10:30 AM Morning Break

10:30 to 10:55 AM **Indole-3-carbinol** is a negative regulator of estrogen receptor-alpha signaling in human tumor cells. **Karen Auborn**, Department of Otolaryngology, Long Island Jewish Medical Center, Albert Einstein College of Medicine, New Hyde Park, NY

10:55 to 11:15 AM Discussion

Session IV: Nutritional Proteomics in Cancer Prevention

A. Technology Issues and Approaches - (Moderator: **Sharon Ross**, Nutritional Science Research Group, Division of Cancer Prevention, NCI, NIH)

11:15 to 12:05 PM New approaches to protein profiling of cancer. **Emanuel F. Petricoin**, Division of Therapeutic Products, Center for Biologics Evaluation Research, Food and Drug Administration, Bethesda, MD

12:05 to 1:05 PM Lunch Break (Lunch, on your own)

B. Translational and Post-translational Modifications Influenced by Nutrients - (Moderator: **Paul Coates**, Office of Dietary Supplements, Office of the Director, NIH, Bethesda, MD)

1:05 to 1:30 PM Selective inhibition of selenocysteine tRNA maturation and **selenoprotein** synthesis in transgenic mice expressing isopentenyladenosine-deficient selenocysteine tRNA. **Dolph L. Hatfield**, Section on the Molecular Biology of Selenium, Basic Research Laboratory, NCI, Bethesda, MD.

1:30 to 1:55 PM Relationships between chromatin organization and DNA methylation. **Peter Jones**, University of Southern California, Los Angeles, CA.

1:55 to 2:20 PM Inhibition of histone deacetylase activity by **butyrate**. **Jim R. Davie**, Manitoba Institute of Cell Biology, University of Manitoba, Manitoba, Canada.

2:20 to 2:45 PM Genistein targeting: DINGG proteins in cancer and osteoarthritis - use of intelligent proteomics, **Stephen Barnes**, University of Alabama, Birmingham, AL

2:45 to 3:00 PM Afternoon Break

3:00 to 4:00 PM - *Panel Discussion: Opportunities and Challenges for Future Nutrition Research in Cancer Prevention*

Chairman: **John A. Milner**, Nutritional Science Research Group, Division of Cancer Prevention, NCI, Bethesda, MD
Co-Chairman: **Richard G. Allison**, American Society for Nutritional Sciences, Bethesda, MD

Panel Members:

- **Vay Liang Go**, University of Calfornia at Los Angeles, Center for Human Nutrition, Los Angeles, CA.
- **Leonard A. Cohen**, Division of Nutrition and Endocrinology, American Health Foundation, Valhalla, NY.
- **Michael J. Wargovich**, Division of Basic Research, South Carolina Cancer Center, Columbia, SC.
- **Cheryl Rock**, Department of Family and Preventive Medicine, University of California, San Diego, CA.
- **James G. Elliott**, Roche Vitamins Inc., Parsippany, NJ.
- **Gary A. Miller**, Paradigm Genetics, Inc., NC.

4:00 to 4:05 PM Closing Remarks, **Young S. Kim**, Nutritional Science Research Group, Division of Cancer Prevention, NCI, NIH.