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## **Florence S. Mahoney Seminar Series**

*Formerly known as Progress in Longevity Medicine Seminar Series (PLMSS)*

# **Evidence-Based Nutrition and the Problem of Proof**

## **Jeffrey B. Blumberg, PhD, FACN, CNS**

*Friedman School of Nutrition Science and Policy  
Jean Mayer USDA Human Nutrition Research Center on Aging  
Tufts University*

**Date/Time:** **Friday, February 13, 2009; 5:30 pm (dinner included)**

**New Location:** **Doubletree Guest Suites, 320 North 44th St., Phoenix, AZ 85008**

**Cost:** **No cost to attend**

**Abstract:** The power of nutrition appears particularly to lie in its ability to promote health and reduce the risk of many chronic diseases. "A stitch in time saves nine," so preventive nutrition should serve to increase the quality and length of life and decrease the cost of health care. However, the requirement for proof demanded by the guidelines for evidence-based medicine is increasingly in contrast to the paradigm previously employed to substantiate the benefits of nutritional interventions. For example, the randomized controlled clinical trial is now the "gold standard," not only for establishing the efficacy and safety of pharmacologic interventions, but also for recommending changes in diet and the use of dietary supplements. However, the long latency and multifactorial causation of chronic disease, the impossibility of a zero exposure to a nutrient (for a placebo group), and the multiple thresholds for different actions of a single nutrient in various tissues limit the value and the application of randomized controlled trials to test nutrition hypotheses. Further, appropriately designed trials for primary prevention (in contrast to secondary prevention) present challenges not only regarding cost and time, but also concerning the ethical conduct of studies. New methods are required to evaluate the totality of evidence-based nutrition derived from basic, observational, and intervention research approaches and to make scientific judgments on the benefits and risks of dietary patterns and dietary supplements.

## Objectives

- Define the criteria for evidence-based medicine and nutrition
- Describe the advantages and limitations of randomized clinical trials for nutrition interventions
- Illustrate the differences of exposure modeling in observational vs. intervention studies

**Biography:** Dr. Jeffrey Blumberg is a Senior Scientist and Director of the Antioxidants Research Laboratory at the Jean Mayer USDA Human Nutrition Research Center on Aging (HNRCA) at Tufts University. He is also a Professor at the Friedman School of Nutrition Science and Policy at Tufts University.

Dr. Blumberg also participates in activities relevant to the incorporation of sound nutrition science into public health policy and has served on committees of the Food and Drug Administration, World Health Organization, Food and Agriculture Organization of the United Nations, U.S. Surgeon General's Office, and the U.S. Olympic Committee.

From 1981 to 2004, he served as Assistant then Associate Director of the HNRCA. He was also an Associate Professor at the College of Pharmacy and Allied Health Professions at Northeastern University and served as Head of the Section of Pharmacology and Director of the Program in Toxicology.

He has published more than 230 articles and currently serves on the editorial boards of several nutrition science journals. He is also a consultant to several food/pharmaceutical companies and trade-related associations. His research efforts are focused on the biochemical basis for the role of antioxidant nutrients and their dietary requirements in health promotion and disease prevention during the aging process via their modulation of oxidative stress status.

Dr. Blumberg received a BPharm in Pharmacy and BS in Psychology from Washington State University, and a PhD in Pharmacology from Vanderbilt University School of Medicine. He received his postdoctoral training in cyclic nucleotide metabolism at the Tennessee Neuropsychiatric Institute and the University of Calgary.

To RSVP or for additional information, please contact Stephanie Tusalem at (602) 778-7492  
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