

L u n c h ~ N ~ L e a r n S E M I N A R



THE NATIONAL COALITION FOR
FOOD & AGRICULTURAL RESEARCH

Program:

HANDS-ON SCIENCE IN THE WILD

*"Discovery of the Innate Plant-Protective Properties of
Plants, and Delivery to the U.S. Marketplace and Beyond"*

April 16, 2012

PROGRAM

Welcome and Introduction

RICHARD WILKINS
NATIONAL C-FAR REPRESENTATIVE

Distinguished Speaker

DR. MARY ANN LILA
DIRECTOR
PLANTS FOR HUMAN HEALTH INSTITUTE (PHHI)
NORTH CAROLINA STATE UNIVERSITY
NORTH CAROLINA RESEARCH CAMPUS
KANNAPOLIS, NORTH CAROLINA

Open Forum

Closing

RICHARD WILKINS

NATIONAL C-FAR IS a nonprofit, nonpartisan, consensus-based and customer-led coalition that brings food, agriculture, nutrition, conservation and natural resource stakeholders together with the food and agriculture research and extension community, serving as a forum and a unified voice in support of sustaining and increasing public investment at the national level in food and agricultural research, extension, and education. For additional information, go to www.ncfar.org; or contact Tom Van Arsdall, Executive Director, at tom@vanarsdall.com.

ABSTRACT

Plants that exist at the extremes in nature can masterfully produce unique chemical cocktails that allow survival despite environmental stresses. These same chemicals, once ingested by man, are capable of interacting with human therapeutic targets to inhibit disease and fortify our body's metabolism. Today, the ready availability of sophisticated 'omics' technologies (genomics, transcriptomics, pharmacogenomics, and metabolomics) has permitted science to elucidate and confirm multiple human health-protective properties linked to consumption of these natural phytochemicals. Wellness-promoting attributes have now been demonstrated in recent trials, but how much of the science translates into public awareness and, more importantly, sustained dietary changes? Consumers are aware of the term 'antioxidant' as proactive route to make dietary choices that avoid chronic human diseases—in particular, cancer. Still, research suggests that only 1% of the adult US population (and 2% of kids) consumes the recommended amount of these plant-based components on a daily basis. Urgent research priorities and milestones to be discussed include: 1) validation of bioactive attributes in plant foods and development of clear-cut guidelines for public adoption; 2) development of novel functional food formulations that capture bioactive benefits in a shelf-stable, convenient format that is not cost-prohibitive; and 3) translation of functional food technology into a biofortification strategy to benefit the developing world.

SPEAKER BIOGRAPHY

Mary Ann Lila, Ph.D., is Director of the Plants for Human Health Institute (PHHI), North Carolina State University, North Carolina Research Campus. She holds the endowed David H. Murdock Chair, and is a Professor in the Department of Food, Bioprocessing, and Nutrition Sciences. Through ground-breaking, trans-disciplinary discovery and outreach, the faculty team at PHHI pioneers a dramatic shift in the way the American public views and uses plant food crops – not merely as a source of nutrients and flavorful calories, but as a powerful resource for components that protect and enhance human health. Integrated research in metabolomics, biochemistry, pharmacogenomics, breeding and postharvest attributes are aimed at development and promotion of mainstream fruit and vegetable produce with enhanced health benefits, *and* introduction of new or underappreciated crops and products from various sites throughout the globe, allowing consumers to make proactive, responsible dietary choices that benefit their own and their family's health. Dr. Lila's own laboratory team focuses on both wild and domesticated berries and their wide-ranging health and unique human health benefits, including alleviation of the symptoms of diabetes and metabolic syndrome.

SEMINAR SERIES DESCRIPTION

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