

## ABSTRACT

### **Food Nanoscience??? How Tiny Particles Have a Big Impact.**

Nanotechnology refers to the manipulation of individual atoms and molecules, by engineering matter at the atomic level. At the nanoscale, familiar materials can have dramatically different properties, creating new applications. Nanotechnology has emerged as one of the most exciting areas of research with great potential to influence various sectors of the economy including food and agriculture. Applications in the food industry that are in development include advances in food quality, safety and biosecurity; food processing; nutrient/ingredient technologies; and food packaging. Some of the advances are nearing or are already being commercialized. As with any new technology, nanotechnology faces a number of challenges. Specific questions that will be addressed: (1) *Are they safe for food applications?* (2) *Will their use be accepted by the public?* (3) *What are the potential environmental and societal impacts of nanomaterials in food?* Food-related nanotechnology research to date has received little support in the U.S. Future targeted support for food and nutrition-related research is urgently needed to evaluate the impact on American consumers and maintain global competitiveness and scientific leadership.

## SPEAKER BIOGRAPHY

**Bernadene Magnuson**, Ph.D. is Senior Scientific and Regulatory Consultant, Cantox Health Sciences, and Associate adjunct professor, Nutritional Sciences, University of Toronto. She is a food toxicologist, with expertise in safety assessments of food and dietary supplement ingredients and contaminants and is a pioneer in the developing field of safety of food nanoscience. Dr. Magnuson is leading efforts to address issues facing the food industry in the adoption of this promising new technology. She has previously worked in the food industry and academia, is widely published, and is a Distinguished Lecturer for the Institute of Food Technologists (IFT). She is Associate Editor of *Food Analytical Methods* and member of the editorial board of the *Journal of Food Protection*, as well as reviewer for many other scientific journals.

THE NATIONAL COALITION FOR  
FOOD & AGRICULTURAL RESEARCH

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THE NATIONAL COALITION FOR  
FOOD & AGRICULTURAL RESEARCH

*Program:*

**“Food Nanoscience???”**

***How Tiny Particles Have a Big Impact***

**September 8, 2008**

## PROGRAM

### *Welcome and Introduction*

Brian T. Smith

National C-FAR

Research Outreach Committee Member

### *Distinguished Speaker*

DR. BERNADENE MAGNUSON  
University of Toronto  
Cantox Health Sciences

### *Open Forum*

### *Closing*

Brian T. Smith

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](http://www.ncfar.org); or contact Tom Van Arsdall, Executive Director at [tom@vanarsdall.com](mailto:tom@vanarsdall.com).

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