


# 4<sup>th</sup> Industrial Workshop on Microencapsulation: Fundamentals & State of the Art - Processing and Application Technologies

Crowne Plaza Hotel and Suites Minneapolis Airport, Bloomington, Minnesota

September 26 - 27, 2012

[www.bioactivesworld.com](http://www.bioactivesworld.com)



**PRODUCT TASTING**  
Chewing Gums  
Canned Dough Biscuits  
and Rolls, Chocolate Bars,  
Beef Sticks and Sour  
Candies, and Miscellaneous  
Encapsulated Materials

**PRODUCTION TOUR  
AND PILOT PLANT  
DEMONSTRATIONS**  
at  
Aveka Inc. and  
Innovative Food  
Processors

## SPONSORS



## SHORT COURSE SPEAKERS

[www.bioactivesworld.com](http://www.bioactivesworld.com)

**Mr. Charles Brain**, President, Ingredient Innovations International, USA  
**Dr. John Foley**, Human Nutrition, Technical Services, BASF Corporation, USA  
**Dr. Anil Gaonkar**, Kraft Foods Fellow, Kraft Foods, USA  
**Ms. Jenni Harrington**, Process Engineer Extruded Products Buhler Inc., USA  
**Dr. Willie Hendrickson**, CEO/Founder, AVEKA, Inc, USA  
**Dr. Atul Khare**, Director, Customer Innovation & Technology Strategy, FONA International Inc.  
**Dr. Marc A. Meyers**, Managing Principal, Meyers Consulting LLC, USA

**Dr. James Oxley**, Senior Research Scientist, Southwest Research Institute, USA  
**Dr. Bob Sobel**, Director of Technology and Innovation, FONA International Inc.  
**Mr. Daisuke Tagawa**, R&D Manager, Microencapsulation, Morishita Jintan Co. Ltd. Japan  
**Mr. Thomas M. Tongue**, Director, Product and Process Technology, Innovative Food Processors, Inc., USA  
**Dr. Markus Wysshaar**, General Manger, Erbo Spraytec AG.

## SHORT COURSE ORGANIZERS



**Bioactives World Forum**  
FUNCTIONAL FOODS AND BIOACTIVE INGREDIENTS NETWORK

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# TECHNICAL PROGRAM

## WEDNESDAY, SEPTEMBER 26, 2012

- 8:00 am **Registration**
- 8:30 am **Materials Used in Encapsulating Bioactives**, Dr. James Oxley, Southwest Research Institute
- 9:00 am **Coacervation and Chemical Processes**, TBA
- 9:30 am **Stability and Prediction of Shelf-Life of Microencapsulated Flavors and Bioactive Compounds**, Dr. James Oxley, Southwest Research Institute
- 10:00 am **Matrix Encapsulation of Non-polar Flavors in Polysaccharides**, Dr. Bob Sobel, FONIA International Inc.
- 10:30 am **Tea / Coffee Break and Product Tasting**

### Products Tastings Include:

- Chewing Gums using encapsulated flavors/sweeteners/acids
- Canned dough biscuits and rolls using encapsulated leavening (sodium bicarb.)
- Chocolate bars with encapsulated pro-biotics

- 11:00 am **Nanotechnology in Flavor Microencapsulation**, Dr. Atul Khare, FONIA International Inc.
- 11:30 am **Enhancing Dietary Supplements and Other Applications with Nanotechnology**, Mr. Charles Brain, Ingredient Innovations International
- 12:00 n **Encapsulation of Flavors by Extrusion Technology**, Ms. Jenni Harrington, Buhler Inc.
- 12:30 pm **Networking Lunch - The Three Big Issues of Microencapsulation: Water, Oxygen and Heat**, Dr. Willie Hendrickson, AVEKA, Inc.
- 2:00 pm **Use of ProCell-Technology in Microencapsulation of Food Ingredients**, Dr. Markus Wyssshaar, Erbo Spraytec AG.
- 2:30 pm **TBA**
- 3:00 pm **TBA**
- 3:30 pm **Hot-Melt, Fluid-Bed Encapsulation Understand the Hurdles**, Mr. Thomas M. Tongue, Innovative Food Processors, Inc.

### PLANT VISIT - Innovative Food Processors, Inc.

- 4:30 pm Departure from hotel to **Innovative Food Processors, Inc.**
- 5:15 pm Arrival to **Innovative Food Processors, Inc.**
  - **Applications and Performance Demonstrations.**
  - **Pilot plant- Fluid-bed Encapsulation & Agglomeration Units.**
  - **Production – Tour one of IFP's Commercial Fluid-bed Rooms.**
- 7:00 pm Dinner sponsored and hosted by **Innovative Food Processors, Inc.**
- 9:00 pm Leave **Innovative Food Processors, Inc.**
- 10:00 pm Arrival at hotel

## THURSDAY, SEPTEMBER 27, 2012

- 8:00 am **History of Microencapsulation of Various Food Ingredients**, Dr. Anil Gaonkar, Kraft Foods
- 8:30 am **Economics of Controlled Release**, TBN
- 9:00 am **Microencapsulation of Omega-3's and Carotenoids Using the BASF Beadlet Technology Process**, Dr. John Foley, BASF
- 9:30 am **Application of Flavor Encapsulation in Chewing Gum**, Dr. Marc A. Meyers, Meyers Consulting LLC
- 10:30 am **Tea / Coffee Break and Product Tasting**

### Products Tastings Include:

- Chocolate and chews with encapsulated Omega-3's
- Beef sticks and sour candies using encapsulated acidulants
- Chocolate bars with encapsulated pro-biotics
- Flavor Beadlet Demonstration
- Miscellaneous encapsulated materials and flavor beads

- 11:00 am **TBA**
- 11:30 am **Commercial Applications of Microencapsulation in Foods and Beverages**, Dr. Anil Gaonkar, Kraft Foods
- 12:00 n **Seamless Capsule Technology: Reduction in Capsule Size for Applications in Flavor, Food and Dietary Supplements**, Mr. Daisuke Tagawa, Morishita Jintan Co. Ltd. Japan
- 12:30 pm **No Official Lunch Planned** (Bus Leaves at 1:30 pm)

### PLANT VISIT - AVEKA INC. - Woodbury, MN

- 2:00 pm Visit **Aveka Inc., Facility** in Woodbury, MN
  - **Coacervation of Flavors Demo**
  - **Alginate Beadlet - Flavor in the Core Demo**
  - **Liposome Formation** on Microfluidics Units
  - **Spray Drying/Chilling Demo**
  - **Hands on Alginate Beads Demonstration**
  - **Urea-Formaldehyde Microencapsulation**
  - **Surface Modification by MAIC (Magnetically Assisted Coating)**
  - **Wurster Coater – Microencapsulation – Coating Beads**
  - **Review of Analytical and Quality Assurance Methods Used in Microencapsulation**
- 5:30 pm **BBQ Dinner** hosted by Aveka Inc.
- 6:45 pm **Bus Return** to Crowne Plaza Hotel and Suites Minneapolis Airport

## REGISTRATION

<b>First Name for Badge</b>			
<b>First Name</b>			
<b>Last Name/Family Name</b>			
<b>Position</b>			
<b>Company</b>			
<b>Address</b>			
<b>City/State/Province</b>		<b>Postal Code</b>	
<b>Business Phone</b>		<b>Fax Number</b>	<b>Country</b>
<b>E-mail</b>			
<b>Credit Card Type</b>	<b>Visa</b>	<b>Master Card</b>	<b>American Express</b>
<b>Name on the Credit Card Number</b>			
<b>Expiration Date</b>			
<b>Signature</b>			

### REGISTRATION INFORMATION

Registration rate includes short course manuals, lunch, dinners, breaks and plant tour and demonstrations

Registration Fees	Regular	Academic	Student	Amount
<b>Before August 22, 2012</b>	<b>\$845</b>	<b>\$695</b>	<b>\$345</b>	
<b>After August 22, 2012</b>	<b>\$945</b>	<b>\$795</b>	<b>\$345</b>	

### Payment by Bank Transfers: Please request bank details

Bioactives World Forum - Functional Foods and Bioactives Ingredients Network  
 309-C, Manuel Drive, College Station, Texas 77840  
 Tel: 1-979-764-8360; Fax: 1-979-694-7031

### On-line Registration and credit card payment.

See link: <http://www.bioactivesworld.com/merregistration.html>  
 E-mail: [nedra.sneed@membraneworld.com](mailto:nedra.sneed@membraneworld.com)

CONFERENCE HOTEL  
 Crowne Plaza Hotel and Suites  
 Minneapolis Airport  
 Three Appletree Square, Bloomington, MN 55425  
 Phone: 1-952-854-9000



Special room rate - Microencapsulation 2011  
 Single/Double Room U.S. \$149