

**'Nano and Micro Technologies in the Food and HealthFood Industries'
25th-26th October 2006 – Grand Hotel Krasnapolsky, Amsterdam**

25th October 2006: Day 1

- 09.20 - 09.30 Welcome and Introduction
- 09.30 - 09.55 **'Food Research and Nanotechnology in the EU: Towards FP7 and Beyond'**
Dr Valerio Abbadessa EU DG RTD Unit E2 - Food Quality
- Evolution of food research in EU
 - Nanotechnology in food
 - FP7: Theme 2 (including nano)
 - The "Food for Life" ETP
- 10.00 - 10.25 **'Nanoemulsions for Beverage Applications'**
Tim Wooster, Food Science Australia
- The formation of sub 50 nm triglyceride nanoemulsion particles and the encapsulation and stability of food bioactives in these nanoemulsions
- 10.30 - 10.55 **'Rapid Safety Testing of Food Nanomaterials Using High Content Screening and Zebrafish Model'**
Robert Donofrio, Global Lifescience Solutions, NSF, USA
- 11.00 – 11.25 Refreshments
- 11.30 – 11.55 **'Consumer Perspectives on Food and Nanotechnology'**
Professor Lynn Frewer, Food Safety and Consumer Behaviour, Wageningen University, Netherlands
- consumer attitudes towards emerging technologies
 - trust in risk-benefit management
 - implications for the development of a commercialisation strategy
- 12.00 - 12.25 **'Nanomaterials in Food and Food Contact Materials: Regulatory and Consumer Safety Implications'**
Dr Qasim Chaudry, Central Science Laboratory, UK
- 12.30 – 12.55 **'Nano and Micro Techniques for Food Products'**
Prof dr Cees Van Rijn, Aquamarijn Micro Filtration BV, Netherlands
- Micro filtration of beverages with microsieves
 - The future of Nanowire sensing along the food chain
- 13.00 – 14.10 Lunch

- 14.15 – 14.40 **'Multi Analyte Sensing in Food Analysis'**
Dr Anna Tudos, Biochip Group, Faculty of Science & Technology, University of Twente, Netherlands
- Requirements for food analysis techniques
 - Why is surface plasmon resonance suited for food analysis?
 - Examples on the micro- (and nano)scale
- 14.45 – 15.10 **'Micelles for Foods and Nutritional Supplements'**
Dr Frank Behnam, AQUANOVA German Solubilisate Technologies (AGT) GmbH, Darmstadt, Germany
- Encapsulation of substances on the nanoscale
 - Improving bioavailability of nutrients
 - Technical & functional applications of solubilisates
- 15.15 – 15.40 **'Nano4Vitality - an Innovation Factory for Food and Health Systems'**
Kees Eijkel, Nano4Vitality, Netherlands
- Short-term product introduction on the basis of innovation leveraged by nanotechnology.
 - The use of consortia of end users, high-tech SMEs and academia and strongly managed milestone-driven projects to this end.
 - New forms of cooperation that speed up innovation.
- 15.45 – 16.10 Refreshments
- 16.15 - 16.40 **'Advanced Nanotechnology Thin Film Approaches for the Food and Medical Industry: An Overview of Current Status'**
Professor Vasco Teixeira, GRF-Functional Coatings Group, University of Minho, Portugal
- How nanotechnology approaches can be used to design and to create nanostructured functional materials?
 - Using advanced nanocoatings systems to meet the challenges of food packaging, health and biomedical industry.
 - Coatings and nanomaterials technology market status. Future applications.
- 16.45 – 17.10 **'The Emerging Global Regulatory Framework for Nanotechnology'**
Mark Mansour, Foley & Lardner LLP, Washington DC, USA
- 17.30 – 19.00 Drinks Reception sponsored by the Food Processing Faraday, Foley & Lardner LLP and The City Council of Amsterdam

26th October 2006: Day 2

- 09.20 - 09.30 Introduction and Welcome
- 09.30 - 09.55 **'Micro- and Nanotechnologies in Food from a Wageningen Perspective'**
Dr Frans Kampers, Wageningen University, Netherlands
- Micro- and nanotechnologies for healthier and safer foods
 - New food products and product innovation
 - Risks and consumer perception needs

- 10.00 - 10.25 **'Low Molecular Weight Gelators: Novel Formulating Ingredients'**
Dr Kjeld van Bommel, Biomade Technology Foundation, Netherlands
- Biomade gelators - applications in gelling aqueous solutions and oils and their compatibility with additives
 - The gelation and stabilization of emulsions, and increasing the bioavailability of included compounds
- 10.30 - 10.55 **'Potential of Nanotechnology for the Food Packaging Industry'**
Zahra Akbari, Tehran University, Iran
- Shelf life of food depends on gas permeability of packaging
 - This can be improved using nanotechnology
 - Biobased nanocomposites for antimicrobial packaging
- 11.00 - 11.25 Refreshments
- 11.30 - 11.55 **'Nanotechnology and Food Safety'**
Dr Hans Bouwmeester, RIKILT Institute of Food Safety, Wageningen University
- Nanotechnology and food production
 - Nanoparticles in food (functional foods)
 - Risk-benefit approaches
- 12.00 - 12.55 Debate: **'Nanotechnology and Food – Health, Safety and Public Awareness'**
Panel: *Dr Kees Eijkel, MANCEF; Dr Donald Bruce, SRPT; Dr David Bennett, NanoBioRaise.*
- 13.00 - 14.10 Lunch
- 14.15 - 14.40 **'Techniques in the Characterization of Foods – an Overview'**
Professor Malcolm Povey, Procter Department of Food Science, University of Leeds, UK
- Foods are generally complex, heterogeneous systems, often containing high concentrations of naturally occurring nano-particles (proteins!)
 - Ultrasound spectroscopy offers the best prospect for the characterisation of concentrated systems of nano-particles in foods
- 14.45 - 15.10 **'Indicators for Food Freshness and Tamper Prevention: A New, Simple Nano-based Intelligent Ink for Oxygen'**
Prof Andrew Mills, University of Strathclyde, Scotland, UK
- Most food are packaged under a modified, largely oxygen free, atmosphere
 - Package-incorporated indicators that provide information regarding this atmosphere are few and often relatively expensive
 - A new, simple nano-based intelligent ink for oxygen is described has great potential for use in the MAP industry

- 15.15 - 15.40 **'Current and Potential Regulation of Nanotechnology in the Food Industry'**
Neville Craddock, Neville Craddock Associates, UK
- The current regulatory framework for foods, food additives and food contact packaging materials
 - Addressing possible deficiencies in the scope and application of current legislation
 - Accommodating safety assessments into existing regulatory frameworks
- 15.40 – 15.50 Closing Remarks
- 15.55 – 16.30 Refreshments and Departure