



**NOVEL STRUCTURES FOR FUNCTIONALITY DELIVERY  
IN COMPLEX FOOD SYSTEMS**

***MANAGEMENT COMMITTEE MEETINGS  
WGS 1-4 MEETINGS  
of COST ACTION FA1001***

***Zurich, on April 13- 14, 2012***



Co-chairmen: Prof. E. Windhab, ETH Zurich – Prof. L. Piazza, Chair Action FA1001

***MEETING VENUE***

ETH Zürich (Center) – Building LFV, Room E41

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Following the COST rules, only MC members and other contacts who have received the official invitation sent by eCOST are entitled to reimbursement. Their participation to the meeting is free of charge. All external experts participating the meeting are not entitled to reimbursement, but their participation is free of charge. A pre-registration at the COST FA 1001 Office in order to get reimbursed has been required. Additional registration for participation is now also made additionally available at the meeting site (ETH Zürich, [anna.emslander@hest.ethz.ch](mailto:anna.emslander@hest.ethz.ch) ; Tel.: +41 44 632 5359).

Main objectives of the COST Action 1001 are:

- Development of process-structure-property relationships in order to deliver new real multiphase structured foods (foams and emulsions) with health benefits (bioavailability/efficacy of nutrients) and optimal sensory characteristics.
- Involvement of Early Stage Researchers in the new product/process design approach.
- Management of the process of sharing knowledge and technologies for healthy foods design among academic institutions and other institutions and private enterprises (mainly SMEs) or services.

The Action has identified a reverse engineering approach for new product developments starting from food properties to be received, entering into formulation or structure engineering and finally deriving processing. A special interest is directed to the health supporting food functions with development of relations between structure and biological efficacy.

According to the decision of the Members of the Management Committee of the Action FA1001 a Management Committee Meetings co-localized with Working Groups 1-4 meetings is organized with presentation of recent research results. Coordination of the organization of the planned events 2012 and coordination of the management of the Action will be also addressed.

## **AGENDA OF THE MEETING**

***FRIDAY APRIL 13, 2012***

***Afternoon section (13:00-17:00 h, LFV E 41)***

**MC MEETING** ( duration: around 1h 30 min)

0. Welcome to participants
1. Adoption of agenda
2. Minutes of last meeting
3. Matters arising
4. Report from the COST Office
5. Progress report of working groups – REF: WGs MEETINGS
6. Action planning
  - 6.1 Annual Progress Conference (preparation and/or feedback from DC)
  - 6.2 Action Budget Planning
  - 6.3 Action Planning (including meetings)
    - 6.3.1 Location and date of next meeting + summer school 2012
    - 6.3.2 Long-term planning (including anticipated locations and dates of future meetings)
7. STSM status, applications
8. Publications, dissemination and outreach activities
9. Request for new members
10. Promotion of gender balance and of Early Stage Researchers (ESR)
11. Non-COST country participations
12. Web news
13. AOB
14. Closing

***Coffee Break (14:30 - 15:00 h, Terasse E 41)***

## WGS 1-4 MEETINGS (15:00 - 17:00 h)

- The role of young scientists in European food science and technology – opportunities and challenges **Henry Jaeger**, TU-Berlin, representative of the EFFoST Young Scientists Special Interest Group (EFFoST YS SIG)
- Designing smart interfaces for enhanced functionalities. **Marc Anton** . INRA Nantes
- Salt reduction and salt replacement - monitoring changes in protein structure and hydration in muscle based foods using vibrational spectroscopy **Nils Kristian Afseth** NOFIMA (Norway)

**DINNER 19:00-21:30 h, Restaurant "Linde" - 15 min. walking distance from ETH)**

## SATURDAY APRIL 14, 2012

### Morning section (9:00 - 12:00 h)

- Production of fine o/w emulsions with whey proteins and various gum stabilizers. Effect of ultrasonic emulsification parameters on their stability. **Olga Kaltsa** , Agricultural University of Athens (Greece) **ESR**
- Use of reverse Engineering to produce apple puree **Lucie Espinosa**, Agroparistech, Massy (France) **ESR**
- Interfacial behaviour and technological functionality of polyphenols in o/w olive oil emulsions , **Carla Di Mattia**, University of Teramo ( Italy) **ESR**
- Production and properties of fiber containing extrudates. **Satu Kirjoranta** University of Helsinki - (Finland) **ESR**
- Micro- and nano- encapsulated food ingredients. **Bojana Isailović, Ana Kalušević**, University of Belgrade (Serbia) **ESRs**
- Dairy proteins as immobilisation matrices for bioactive ingredients, **Thelma Egan**, UCD Institute of Food and Health, UCD – Dublin (Ireland) **ESR**
- **Bipro Dubai, Heiko Spitzbarth**, and **Patrick Rühls** , ETH Zürich (Switzerland) **ESRs**

**LUNCH (12:00 - 13:00 business lunch at E 41 Terasse)**

### Afternoon section (13:00 - 16:30 h)

#### REPORTS STSMs 2011

- Effect of monoglyceride self-assembled structure on emulsion properties and subsequent flavor release **Song Miao**, Teagasc Food Research Centre (Ireland) **ESR**
- Delivery behavior in Simulated model of Small Intestine of coextruded alginate microbeads as carrier for Vitamin B12. **Tommaso Roversi** , DISTAM - University of Milan, **ESR**
- In vitro lipid digestion of chitin nanocrystals particle stabilized emulsions. **Maria Tzoumaki**, Aristotele University , Dept. Food Science Thessaloniki, **ESR**
- Impact of electrostatic deposition of anionic polysaccharides on the functionality of lactoferrin nanoparticles under simulated gastric conditions **Tanya Birman** Technion - Israel Institute of Technology Dept. of biotechnology and Food Eng **ESR**

**PROGRESS REPORT AND PLANNING OF ACTIVITIES FROM WORKING GROUPS WG1, WG2, WG3 WG4**

**CONCLUSIONS**