

Programme 3rd International Symposium Delivery of Functionality in Complex Food Systems

Sunday October 18, 2009 18-00-20.00 Registration and welcome reception

Monday October 19, 2009 08.30-08.40 Opening of symposium

Session 1

Supramolecular organization in foods: glassy systems, protein assemblies and lipid phases

08.40-09.25	Gazit, E.	Self-assembly of peptides and proteins: From nanotechnology to material science
09.25-10.10	Hammarstrom, P.	Protein aggregation: a beauty and a beast
10.10-10.35	Persson, B.A.	Self assembly of bovine lactoferrin
10.35-11.00	Break	
11.00-11.45	Cipelletti, L.	Slow dynamics and jamming in colloidal systems
11.45-12.10	Kroes-Nijboer, A.	The critical aggregation concentration of β -lactoglobulin based fibril formation
12.10-12.30	Mezzenga, R.	Liquid crystalline properties of protein fibers in water
12.30-12.55	Laredo, T.	Polymer gelation of edible oils
12.55-14.05	Lunch	
14.05-14.50	Odijk, T.	Phase separation in polymer – protein mixtures: linear depletion rules
14.50-15.15	Semenova, M.G.	Self-assembled structures of caseins as nanovehicles for the delivery of phosphatidylcholine via food systems
15.15-15.40	Sagalowicz, L.	Delivery systems for liquid food products
15.40-16.05	Break	
16.05-16.30	Djabourov, M.	Phase diagram of gelatin films in presence of plasticizers
16.30-16.55	Mitropoulos, V.	Dissection of the protein adsorption layer for same sets of proteins
16.55-17.15	Keerati-U-Rai, M.	Heat induced changes in oil-in-water emulsions stabilized with soy proteins: role played by glycinin and β -conglycinin fraction
17.30-	Departure for symposium dinner	

Tuesday October 20, 2009

Session 2

Unravelling food: molecular insights from spectroscopy, single molecule techniques and simulations

08.30-09.15	Dietler, G.	What is the shape of DNA and how topology affects it?
09.15-09.40	Nijse, J.	High resolution structure-function analysis of complex food systems using cryo-scanning electron microscopy
09.40-10.05	Nicolai, T.	Tracer diffusion in globular protein gels
10.05-10.30	Break	
10.30-11.15	Descamps, M.	A physical perspective of phase and glass transitions of pharmaceuticals
11.15-11.40	Limbach, H.J.	Structure and dynamics of carbohydrate-water solutions and glasses
11.40-12.05	Ludescher, R.D.	Photophysical probes of amorphous solid biomaterials
12.05-12.25	Vittadini, E.	Multi-level analysis of bread staling
12.25-13.30	Lunch	

Session 3

Biophysics of nutrient absorption and digestion

13.30-14.15	Weitschies, W.	Facts and fictions in oral delivery: lessons learned applying magnetic imaging techniques
14.15-14.40	Foltz, M.	Controlled delivery of food lipids through food based approaches - physiological aspects of influencing food intake and satiety
14.40-15.05	Van Aken, G.A.	Relating food emulsion structure and composition to the way it is processed by in the GI tract and physiological responses: what are the opportunities?
15.05-15.30	Wickham, M.S.J.	<i>In vitro</i> digestions model: taking significant steps closer to the real thing
15.30-15.55	Break	
15.55-16.20	Chu, B.-S.	Modulating lipase activity using the interfacial properties of galactolipids
16.20-16.40	Jourdain, L.S.	Enzymatic stability of emulsions containing mixed sodium caseinate/dextran sulfate interfacial layers
16.40-17.05	Macierzanka, A.	Sodium caseinate stabilised emulsion in simulated gastrointestinal environment: enzymatic cross-linking, <i>in vitro</i> proteolysis and interactions with intestinal mucus layer
17.05-17.25	Bouwens, E.C.M.	The use of colloidal emulsions in functional foods: from understanding of functional digestion to design of innovative products
17.25-17.45	Petitot, M.	How legume flour addition and/or technological processes affect pasta structure and control its starch digestibility
18.00-	Buffer dinner and poster session	

Session 4

Food complexity: physics, physiology and perception

08.30-09.15	Kleerebezem, M.	The complexity of host-microbe interactions in the human intestinal tract
09.15-09.40	Maldonado-Valderrama, J.	Probing the effects of digestion on a protein stabilised interface
09.40-10.00	Neyraud, E.	Can saliva-related reactions influence food bolus structure and sensory perception of food? A case study on fat degradation and preference
10.00-10.20	Gonzalez, Y.	Studies of food stickiness in relation to oral processing
10.20-10.45	Break	
10.45-11.05	Mosca, A.C.	Enhancement of sweetness intensity in gels by inhomogeneous distribution of sucrose
11.05-11.30	Sijtsma, L.	Functionality in food systems: how models can help to understand and improve the production of bio-ingredients by lactic acid bacteria
11.30-11.55	Vilgis, T.A.	Xanthan thickening: theory and applications
11.55-12.20	Foegeding, E.A.	Factors determining stability and yield stress of whey protein isolate and egg white foams
12.20-12.30	Poster prize	
12.30-13.30	Lunch	

Session 5

Food development: technologies and ingredients to face nutritional challenges

13.30-14.15	Windhab, E.J.	Multiscale food process and product engineering to tailor nutritional characteristics
14.15-14.35	Van Der Zalm, E.E.J.	Shear induced wheat flour separation: a promising production process for the future
14.35-15.00	Kobayashi, I.	Chemical and physical stability of fish oil-in-water emulsions: effect of droplet size and storage temperature
15.00-15.25	Livney, Y.D.	Heat-induced beta-lactoglobulin-based nanoparticles as novel protective carriers for EGCG in clear beverages
15.25-15.40	Break	
15.40-16.05	Ubbink, J.B.	The Nutritional Challenge: a materials science perspective on food, food processing and nutrition
16.05-16.30	Turgeon, S.L.	Polysaccharide-polysaccharide interactions to develop functional beverages
16.30-16.50	Feron, G.	Online measurement of <i>in vitro</i> food nutrients delivery: a feasibility study consisting in the use of specific sensors for the following of physical parameters and NaCl and glutamate release during digestion
16.50-17.00	Closure / Announcement of next symposium	