

CONFERENCE PROGRAM

From Model Foods to Food Models

The DREAM Project International Conference

24 - 26 June 2013 | Nantes, France

Event Full Title From Model Foods to Food Models
The DREAM Project International Conference
24 - 26 June 2013
Nantes, France

Conference Venue City of Congress
5 Rue de Valmy
44000 Nantes
France

Contact Details <http://dream.aaeuropae.org/conference>
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DAY 1: Monday 24th June 2013

- 10:30 **Registration and coffee**
- Opening lecture**
Chair: Monique Axelos and Matthijs Dekker
- 11:00-11:20 *Introduction: Searching for opportunity: Models as a tool or solution*
Peter Raspor
- 11:20-11:50 Opening speach
- 11:50-12:30 Modeling contribution to food science and industrial innovation
Monique Axelos
- 12:30-14:00 **Lunch at the City of Congress**
- Session 1- Food process-structure relationships**
Chair: Eva Gelencser and Paola Lavermicocca
- 14:00-14:40 Food process-structure relationships of cereal based product
Maud Laungton
- 14:40-15:00 Effects of fibre and baking conditions on a digestive biscuit model product
Martin Whitworth, Lucio Cicerelli
- 15:00-15:20 Impact of particle size on bioprocess-induced changes on technological and nutritional properties of wheat bran
Rossana Coda, Carlo G. Rizzello, Kaisa Poutanen, Kati Katina
- 15:20-15:40 Effect of moisture and temperature distribution on dried food Microstructure and Porosity
Mohammad Uzzal Hossain Joardder, Azharul Karim, niversity, Chandan Kumar
- 15:40-16:10 **Coffee break**
- Session 1- Food process-structure relationships**
Chair: Eva Gelencser and Paola Lavermicocca
- 16:10-16:30 Microstructure set up of neutral dairy desserts
Anne Matignon, Gabrielle Moulin, Philippe Barey, Stéphane Mauduit, Marc Desprairies, Jean Marc Sieffermann, Camille Michon
- 16:30-16:50 Impact of an addition of phospholipids as emulsifiers on structural and rheological and sensory properties of a cream cheese model
Aliénor Coutouly, Alain Riaublanc, Isabelle Gaucher, Monique Axelos
- 16:50-17:10 Rheo-optical studies of complex fluids under thermo-mechanical treatments using confocal microscopy
Boitte Jean-Baptiste, Benyahia Lazhar, Hayert Murielle and Michon Camille
- 17:15-19:00 **Poster session around cheese & wine**
(See the list of posters)
Session 1- Food process-structure relationships (P1.1 - P1.17)
Session 2 - Food structure – function relationships (P2.1 - P2.27)
Session 3- Food modelling (P3.1 - P3.6)
Poster authors are requested to be present at their poster during the entire Poster Session.
- Social event**
- 19:00 Bus transportation or tourist guides from City of congress to restaurant
“Les Fonderies de l’Atlantique”
- 20:30 Diner at the restaurant “Les Fonderies de l’Atlantique”
- 23:00 Bus transportation from restaurant to City of congress

DAY 2: Tuesday 25th June 2013

Session 2 - Food structure – function relationships (nutrition and safety targets)

Chair: Carolina Realini and Alan Mackie

09:00-09:40 Structure-function studies of plant food polysaccharides in relation to the bioaccessibility and digestion of macronutrients

Peter Ellis

09:40-10:00 Fiber-enriched gluten-free cake formulations containing hazelnut skin

Gamze Yazar, Seher Kumcuoglu, Sebnem Tavman

10:00-10:20 Are the interfacial layer, unadsorbed protein emulsifiers and PUFA carrying molecules key factors for the development of oxidation in oil-in-water emulsions?

Claude Genot, Claire Berton, Tin-Hinan Kabri, Marie-Hélène Ropers, Anne Meynier

10:20-11:10 **Coffee break and poster session**

(See the list of posters)

Session 1- Food process-structure relationships (P1.1 - P1.17)

Session 2 - Food structure – function relationships (P2.1 - P2.27)

Session 3- Food modelling (P3.1 - P3.6)

Poster authors are requested to be present at their poster during the entire Poster Session.

Session 2 - Food structure – function relationships (nutrition and safety targets)

Chair: Carolina Realini and Alan Mackie

11:10-11:50 Food safety and risk management: Learning from other disciplines and from crises

Wolfgang Kneifel

11:50-12:10 Plant cell walls as barriers to lipid bioaccessibility in a model lipid-rich plant food

Myriam Grundy, Terri Grassby, Peter Wilde, Giusy Mandalari, Mary Parker, Keith W. Waldron, Peter J. Butterworth, Sarah E.E. Berry, Peter R. Ellis

12:10-12:30 Relationships between the structural and biochemical traits with the nutritional value of meat upon cooking

Rey F, Astruc T, Aubry L, Gobert M, Daudin, JD, Vénien A, Realini C, Santé-Lhoutellier V

12:30-14:00 **Lunch at the City of Congress**

Session 2 - Food structure – function relationships (nutrition and safety targets)

Chair: Carolina Realini and Alan Mackie

14:00-14:20 Image analysis of cheese microstructure and diffusion properties of solutes: An important link to understand cheese ripening mechanisms

Juliana Valle Costa Silva, Chantal Cauty, David Legland, Sylvie Lortal and Juliane Flourey

14:20-14:40 The effect of fibre particle size reduction on the microstructural, mechanical and functional properties of cellular solid food foams

Nesli Sozer, Lucio Cicerelli, Kaisa Poutanen

Session 3- Food modeling

Chair: Kaisa Poutanen and Matthijs Dekker

14:50-15:30 Towards a novel generation of predictive models for food safety and quality: bridging the gaps in a multi-scale systems approach

Jan van Impe

15:30-15:50 Coupling deterministic and random sequential approaches for structure and texture prediction of a dairy oil-in-water emulsion
Etienne Descamps, Nathalie Perrot, Sebastien Gaucel, Cristian Trelea, Alain Riaublanc, Alan Mackie, Evelyne Lutton

15:50-16:20 **Coffee break and poster session**

(See the list of posters)

Session 1- Food process-structure relationships (P1.1 - P1.17)

Session 2 - Food structure – function relationships (P2.1 - P2.27)

Session 3- Food modelling (P3.1 - P3.6)

Poster authors are requested to be present at their poster during the entire Poster Session.

Session 3- Food modeling

Chair: Kaisa Poutanen and Matthijs Dekker

16:20-16:40 Food model exploration through evolutionary optimization coupled with visualization: application to the prediction of a milk gel structure

Lutton E, Tonda A, Gaucel C, Foucquier J, Riaublanc A, Perrot N

16:40-17:00 Modelling oxidation and denaturation of meat proteins during cooking

Promeyrat A, Gatellier P, Broyart B, Kondjoyan A, Daudin JD

17:00-17:20 Modelling the fate of glucosinolates during thermal treatment in different Brassicaceae

Sarvan I, Verkerk R, Dekker M

17:20-17:40 Rheological model of digestive-type Biscuits

Baldino N, de Cindio B, Gabriele D, Lupi FR, Seta L, Cicerelli L

17:40-18:00 Industry guide for Food Modelling

András Sebok, Csaba Baár, Ágnes Gyúró

Social event

18:30 Bus transportation from City of Congress to the Museum "La galerie des machines de L'île"

19:00 Visit of the Museum "La galerie des machines de L'île"

20:00 Dinner at restaurant "Deck"

23:00 Bus transportation from restaurant to City of Congress

DAY 3: Wednesday 26th June 2013

Session 4: Round table discussion

Chair: Monique Axelos, Peter Raspor and Andras Sebok

09:00-10:15 **Industrial:** How to promote the use of models?

Christophe Cotillon, Gerd Harzer, Roland E. Poms, Daniele Rossi, Steve Walker, Hubert Chiron

10:15-11:00 **Perspectives:** Multi-criteria modelling approaches for sustainability.

Dietrich Knorr, Tadeusz Trziszka, Jasna Mastilović, Hugo de Vries, Lilia Ahrné

11:00-11:30 **Coffee break and poster session**

(See the list of posters)

Session 1- Food process-structure relationships (P1.1 - P1.17)

Session 2 - Food structure – function relationships (P2.1 - P2.27)

Session 3- Food modelling (P3.1 - P3.6)

Poster authors are requested to be present at their poster during the entire Poster Session.

Closing lecture

Chair: Nathalie Perrot and Peter Raspor

11:30-12:10 Added value food processing

Lilia Ahrné

12:10-12:30 **Conclusion**

Monique Axelos and Peter Raspor

12:30-14:00 **Lunch at the City of Congress**

END OF THE DREAM INTERNATIONAL CONFERENCE

LIST OF POSTERS

Please note that posters will be on display in the poster area for the time of the Conference and will be open for viewing during exhibition hours – Poster Session.

Poster authors are requested to be present at their poster during the entire Poster Session.

Session 1- Food process-structure relationships

- P1.01 Dry fractionation for production of functional Pea protein concentrates
Pascalie Pelgrom, Anne Vissers, Remko Boom, Maarten Schutyser
- P1.02 Prediction of cellular structure and stability of fermenting wheat flour dough envisioned as a triphasic medium by a multi-scale approach
Arnaud Turbin-Orger, Hubert Chiron, Laurent Chaunier, Guy Della Valle
- P1.03 Physical properties and acrylamide concentration of muffins baked in steam assisted hybrid and forced convectional ovens
Isleroglu H, Sakin-Yilmazer M, Kemerli T, Özdestan Ö, Üren A, Kaymak-Ertekin F, Özyurt B
- P1.04 Industrial scale up of WP2 model yield a wide range of tomato purée texture, viscosity and colour
Le Page JF, Courand F, Bouhours D, Guezennec A, Kerlock L, De Broucker T, Postollec F
- P1.05 Determination of *Alternaria* growth and mycotoxin boundaries in WP2 tomato purée model
Huchet V, De Girolamo A, Divanac'h ML, Lochardet A, Valerio F, Visconti A
- P1.06 Reproducibility assessment of species-specific PCR methodology in order to monitor viable target microflora
Desriac N, Postollec F, Coroller L, Sohier D
- P1.07 Optimization of operating conditions in conveyor drying of apple, banana and carrot
Banu KOÇ, Songül KESEN
- P1.08 Determination of some quality parameters of turkey rolls formulated with different proportions of PSE-like (pale, soft, exudative) turkey meat and whey protein
Pelin Baris, Meltem Serdaroglu
- P1.09 Equation of state and structure of highly concentrated globular protein solutions
Coralie Pasquier, Sylvie Beaufils, Antoine Bouchoux, Bernard Cabane, Sophie Rigault, Javier Perez, Valérie Lechevalier, Cécile Le Floch-Fouéré, Gilles Paboeuf, Maryvonne Pasco, Stéphane Pezennec
- P1.10 Predictive modelling of vegetable texture after thermal pre-treatments and processes
Matthijs Dekker, Evelien Dekkers, Ruud Verkerk, Anita Jasper and Csaba Baár
- P1.11 Crystallization of lactose in frozen sucrose solutions
Aleksei Kaleda, Tiina Klesment, Katrin Laos
- P1.12 Identification of the bacterial species responsible for ropy spoilage used in the assessment of WP5 bread model applicability.
Palmira De Bellis, Angelo Sisto, Francesca Valerio, Stella Lisa Lonigro, Angelo Visconti, Paola Lavermicocca
- P1.13 Generic cheese models
Jean-René Kerjean, Romain Richoux, Lydie Aubert-Frogerais
- P1.14 Development of a realistic soft cheese model
Romain Richoux, Lydie Aubert, Jean-René Kerjean
- P1.15 Development of five realistic cheese models
Romain Richoux, Lydie Aubert-Frogerais, Jean-René Kerjean
- P1.16 Volume digital image correlation to assess displacement field in compression loaded bread crumb under X-ray microtomography
Ali Moussawi, Jiangping Xu, Hedi Nouri, Sofiane Guessasma, Gilles Lubineau
- P1.17 Food coating with electrospraying
Hulya Cakmak, Muhammad Kashif Iqbal Khan

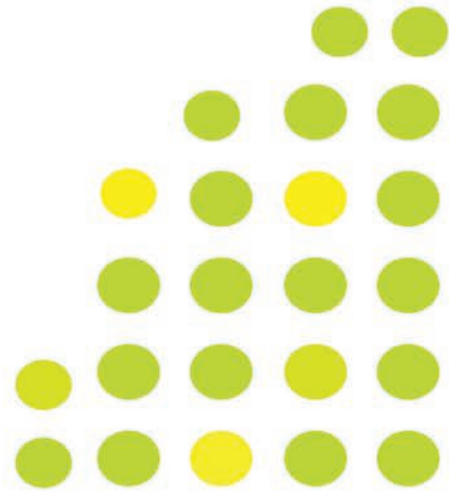
Session 2 - Food structure – function relationships

- P2.01 Interactions between pectic compounds and procyanidins: Modulation by methylation degree and chain length.
Aude A. Watrelot, Carine Le Bourvellec, Anne Imberty, Catherine M.G.C. Renard
- P2.02 Behaviour of spoilage microorganisms on DREAM model foods: the case of the spoiler *Bacillus amyloliquefaciens* in bread.
Valerio Francesca, Di Biase Mariaelena, Postollec Florence, Sisto Angelo, De Bellis Palmira, Visconti Angelo, Lavermicocca Paola
- P2.03 Effect of *Lactobacillus brevis* - based bioingredient and bran on microbiological, physico-chemical and textural quality of yeast leavened bread during storage
Valerio Francesca, Caputo Leonardo, Di Biase Mariaelena, Ancona Nicola, Visconti Angelo, Lavermicocca Paola
- P2.04 Formation of anisotropic structure from plant protein
Katarzyna Grabowska, Atze Jan van der Goot
- P2.05 Links between cell wall polysaccharide side chains and mechanicals properties
Videcoq P, Assor C, Arnould O, Barbacci A, Lahaye M
- P2.06 Influence of bread density on the kinetics of glucose absorption and insulin secretion in the context of a complete meal
Caroline Buffière, Hubert Chiron, Marie-Agnès Peyron, Jean-Louis Sébédio, Guy Della Valle, Didier Rémond
- P2.07 Understanding the Role of Aeration in Food Products
Kathy Groves, Pretima Titoria
- P2.08 Rat model for evaluation of gut resistance of meat originated carnosine
András Nagy, Emőke Szerdahelyi, Éva Gelencsér
- P2.09 Transformation Of Sub-Cellular-Size Particles During Processing Modify The Carotenoid Diffusivity Of Tomato Purees
Page D, Labadie C, Renard CMGC
- P2.10 Extrusion of barley and oat improves the bioaccessibility of dietary phenolic acids in growing pigs
Anastasia S. Hole, Nils Petter Kjos, Stine Grimmer, Achim Kohler, Per Lea, Bard Rasmussen, Lene R. Lima, Judith Narvhus and Stefan Sahlstrøm
- P2.11 Microencapsulation of Pimenta dioica essential oil by k-carrageenan-chitosan complex coacervation method
Cristian Dima, Mihaela Cotarlet, Petru Alexe, Stefan Dima
- P2.12 Complexes between fatty acids and native or aggregated β -lactoglobulin: binding properties and biological functions
Le Maux Solène, Brodkorb André, Giblin Linda, Bouhallab Said, Croguennec Thomas
- P2.13 Integrating breadmaking process modifications in order to increase dietary fibre contents in French bread
Le Bleis F, Chaunier L, Chiron H, Réguerre A-L, Della Valle G
- P2.14 Bioactive Peptides From Food Sources: Production, Biological Activity And Potential Food Applications
Mustafa Kemal Unal, Semih Otles, Emine Nakilcioglu, Canan Kartal
- P2.15 Effect of sodium chloride (NaCl) and pH on the properties of a model cheese system
Piska I, Byrne B, Guinee TP
- P2.16 Salt release and perception in model cheeses are influenced by salt/fat contents, microstructure and salt mobility
Christian Salles, Lauriane Boisard, Isabelle Andriot, Chantal Septier, Elisabeth Guichard

- P2.17 Model mixtures for yoghurt studies
Robi Andoyo, Fanny Guyomarc'h, Chantal Cauty, Marie-Hélène Famelart
- P2.18 The effect of food structure on nutrient bioaccessibility during simulated gastro-duodenal digestion
Mackie AR, Salt LJ, De Angelis E, Surel C, Martinez O
- P2.19 Impact of food-processing on allergenic potential of wheat and egg proteins
Sandra Denery-Papini, Chantal Brossard, Colette Larré
- P2.20 Detection of protein carbonylation in meat models
Jure Zupan, Carolina Realini, Peter Raspor
- P2.21 Designing microstructure into xanthan gum enriched acid milk gels
Anne Rohart, Camille Michon
- P2.22 The structure of model infant formulas modulate the lipolysis, the proteolysis and the disintegration of the matrices during in vitro gastric digestion
Claire Bourlieu, Olivia Ménard, Alix De Langle, Benoît Robert, Florence Rousseau, Marie-Noëlle Madec, Amélie Deglaire, Stéphane Pezennec, Frédéric Carrière, Didier Dupont, Saïd Bouhallab
- P2.23 Binding of hydrothermally processed starch to α -amylase and its relation to the kinetics of enzyme digestion
Patel H, Butterworth PJ, Ellis PR
- P2.24 New antibodies to specifically detect deamidated gluten in food
Olivier Tranquet, Colette Larré, Sandra Denery-Papini
- P2.25 Investigation on Deoxynivalenol, T-2 and HT-2 bioaccessibility in contaminated bread samples by using an in vitro digestion model
Elisabetta De Angelis, Linda Monaci, Alan Mackie and Angelo Visconti
- P2.26 Experimentally determining forces between emulsion droplets with extraordinary precision
Marjorie R. Griffiths, M.A.K. Williams, Geoff R. Willmott, Kathryn M. McGrath
- P2.27 Chemical properties of orange peel and using of as a raw material for new products
Fatma Coskun, Fikret Pazir

Session 3- Food modelling:

- P3.01 Mathematical Modeling and Thin Layer Drying of Chicken Meat Enriched Baguette Slices
Hulya Cakmak, Seher Kumcuoglu, Sebnem Tavman
- P3.02 Basic knowledge models for the processing of bread considered as a solid foam
Guy Della Valle, Hubert Chiron, Lucio Cicerelli, Kamal Kansou, Kati Katina, Amadou Ndiaye, Martin Whitworth, Kaisa Poutanen
- P3.03 A coupled numerical model for studying the thermal denaturation-aggregation of whey proteins
Plana-Fattori A, Coutouly A, Riaublanc A, Doursat C, Flick D
- P3.04 Heat resistance of *Byssoschlamys nivea* LMSA.01.006 determined in WP2 cold break tomato purée
Huchet V, Lochardet A, Peauger P, Kerloc'h L, Courand F, Postollec F
- P3.05 Food model aided design tool to optimize food model formulations, processes and storages according to microbial behaviour
Postollec F, Di Biase M, Desriac N, Huchet V, Fusco V, Sisto A, Valerio F, Lavermicocca P, Sohier D
- P3.06 Prediction of *Bacillus weihenstephanensis* acid resistance using gene expression quantification
Desriac N, Postollec F, Leguerinel I, Coroller L, Sohier D



Design and development of **REA**listic food **M**odels with well- characterised
micro- and macro-structure and composition

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