Oral Program

Sunday 3 June 2018	
12:00	**Conference registration** Room: Grand Salon C Foyer
13:00 – 13:30	**Conference welcome** **Introduction of session and conference co-chairs** **Student activities** Room: Grand Salon Opera AB
Session 1 **Conference Topic: Structuring and de-structuring of dispersed food systems** Session Co-Chairs: Koen Dewettinck and Elisabeth Guichard Room: Grand Salon Opera AB	
13:30 – 14:00	**[KN01] Koen Dewettinck |** *Ghent University, Belgium* **Innovative chocolate products: what you see is what you get?**
14:00 – 14:15	**[O.01] Controlled micro-scale clustering of oil droplets enhances sensory perception of oil related attributes in o/w emulsions** P.L. Fuhrmann*[1,2], G. Sala[1,2], E. Scholten[1,2], M.A. Stieger[1,2], [1]*TI Food & Nutrition, The Netherlands,* [2]*Wageningen University & Research, The Netherlands*
14:15 – 14:30	**[O.02] Rheology and stability of fat crystal-stabilized water-in-oil emulsions – the role of droplet size and interfacial crystallization** R. Rafanan, D. Rousseau*, *Ryerson University, Canada*
14:30 – 14:45	**[O.03] The effect of surfactant crystallization on the stability of O/W emulsions** L. Goibier*[1,2], F. Leal Calderon[1,2], C. Faure[1,2], [1]*Université de Bordeaux, CBLN, UMR 5248, France,* [2]*CNRS, CBMN, UMR 5248, France,* [3]*Bordeaux INP, CBMN, UMR 5248, France*
14:45 – 15:00	**[O.04] TBC**
15:00 – 15:15	**[O.05] Physical stability of iron-loaded double emulsions with fat crystals and different hydrophilic emulsifiers** P. Duque Estrada*, W. Bax, A.J. van der Goot, C. Berton-Carabin, *Wageningen University & Research, The Netherlands*
15:15 – 15:30	**[O.06] Microstructural elucidation of the fat crystal network in oil droplets towards a mechanistic understanding of partial coalescence** K. Moens*, K. Dewettinck, *Ghent University, Belgium*
15:30 – 16:00	Coffee break Room: Grand Salon C
16:00 – 16:30	**[KN02]** Matt Golding | *Massey University, New Zealand* The influence of colloidal microstructure dynamics on the functional properties of a model Mozzarella cheese
16:30 – 16:45	**[O.07] TBC**
16:45 – 17:00	**[O.08] Influence of structure on the function of naturally-derived saponins used as new surfactants** T. Ralla*[1], H. Salminen[1], M. Edelmann[2], C. Dawid[2], T. Hofmann[2], J. Weiss[1], [1]*University of Hohenheim, Germany,* [2]*Technical University Munich, Germany*
17:00 – 17:15	**[O.09] Foams and emulsions stabilized by living probiotic bacteria: Towards microbiological cells as structural building blocks of food materials** J. Risbo[1], N. Arneborg[1], C. Falco*[1], X. Jang[1], M. Cardenas[2], [1]*University of Copenhagen, Denmark,* [2]*Malmö University, Sweden*
17:15 – 17:20	**[FP.01] Characterizing the effect of particulate fillers on the physical properties of food matrices**

	A.J. Gravelle*, S. Barbut, A.G. Marangoni, *University of Guelph, Canada*
17:20 – 17:25	**[FP.02] Surfactant effects on fat crystallization at the oil-water interface** N.L. Green*[1], S.R. Euston[2], D. Rousseau[1], [1]*Ryerson University, Canada,* [2]*Heriot-Watt University, UK*
17:25 – 17:30	**[FP.03] The effect of tempering on the foamability and stability of food-grade oil foams** R. Heymans*, I. Tavernier, P. Van der Meeren, K. Dewettinck, *Ghent University, Belgium*
17:30 – 19:00	Welcome drinks reception and poster session 1 Room: Grand Salon C
19:00	End of day 1
Monday 4 June 2018	
Session 2 **Conference Topic: Structuring and de-structuring of food systems containing hydrocolloids, crystals and gels** Session Co-Chairs: Christoph Hartmann and Marco Morgenstern Room: Grand Salon Opera AB	
08:30 – 08:45	**[O.10] Development of mixed organogels through the interaction of monoglycerides, phosphatidylcholine and water** J.F. Toro-Vazquez*, M. Aguilar-Zárate, F.M. Álvarez-Mitre, M.A. Charó-Alonso, *Universidad Autónoma de San Luis Potosí, Mexico*
08:45 – 09:00	**[O.11] Exploitation of k-carageenan aerogels as templates for edible oleogel preparation** L. Manzocco*[1], F. Valoppi[2], S. Plazzotta[1], S. Calligaris[1], M.C. Nicoli[1], [1]*University of Udine, Italy,* [2]*University of Helsinky, Finland*
09:00 – 09:15	**[O.12] Oleogelation using pulse protein-stabilized foams** A. Mohanan*, Y. Tang, M.T. Nickerson, S. Ghosh, *University of Saskatchewan, Canada*
09:15 – 09:30	**[O.13] Protein oleogels - A direct approach** M. Davidovich-Pinhas*, I. Nephomnyshy, *Technion - Israel Intitute of Technology, Israel*
09:30 – 09:45	**[O.14] FTIR-analysis of stress-sensitive proteins at oil/water-interfaces** H. Schestkowa*, A.M. Oechsle, S. Drusch, *Technische Universität Berlin, Germany*
09:45 – 10:00	**[O.15] Non-gluten, water insoluble proteins improve the properties of soy protein gels with microbial transglutaminase** K.D. Mattice*, A.G. Marangoni, *University of Guelph, Canada*
10:00 – 10:15	**[O.16] Impact of solid lipid nanoparticles on protein gel properties and their behavior during gel preparation** V. Wiedenmann*[1,2], U. van der Schaaf[2], H. Karbstein[2], K. Oehlke[1], [1]*Max Rubner-Institut, Germany,* [2]*Karlsruhe Institute of Technology, Germany*
10:15 –10:30	**[O.17] Viscoelastic properties of SPI-pectin blends: richer than a simple composite material** B.L. Dekkers*, R.M. Boom, A.J. van der Goot, *Wageningen UR, The Netherlands*
10:30 – 11:00	Coffee break Room: Grand Salon C
11:00 –11:15	**[O.18] Adsorption and structure of wheat proteins film at the air-water interface** A. Poirier*, A. Banc, A. Stocco, M. In, L. Ramos, *Université de Montpellier, France*
11:15 –11:30	**[O.19] Evidence linking processing of insect flours to their techno-functionality and digestibility: The case of silk moth pupae (Bombyx mori) and crickets (Acheta domesticus)** T. David- Birman*, H. Moshe, U. Lesmes, *Technion- Israel institute of technology, Israel*
11:30 – 11:45	**[O.20] Understanding fiber formation in a concentrated soy protein isolate - pectin blend** B.L. Dekkers*, R.M. Boom, A.J. van der Goot, *Wageningen UR, The Netherlands*
11:45 – 11:50	**[FP.04] Removal of excess emulsifier transformed a liquid nanoemulsion into viscoelastic nanogel** K. Kadiya*, S. Ghosh, *University of Saskatchewan, Canada*
11:50 – 11:55	**[FP.05] Understanding water holding capacity of multi-phase gels used as meat analogues** S.H.V. Cornet*, R.G.M. van der Sman, A.J. van der Goot, *Wageningen University, The Netherlands*
11:55 – 12:00	**[FP.06] Epitaxial Growth of PMF Crystals on Sorbitan Esters with Different Fatty Acid Moieties**

	H. Hondoh*, C. Ishibashi, S. Ueno, *Hiroshima University, Japan*
12:00 – 12:30	**[KN03] Christoph Hartmann |** *Nestlé Research, Switzerland* **Understanding food oral breakdown to guide structure design**
12:30 – 14:00	Lunch buffet & Poster Session 2 Room: Grand Salon C
Session 3 **Conference Topic: Food structure design across the lifespan** and **for healthcare and medical applications** Session Co-Chairs: Julie Cichero and David Mela Room: Grand Salon Opera AB	
14:00 – 14:30	**[KN05]** Marco Morgenster	*New Zealand Institute for Plant & Food Research, New Zealand* Oral processing as a link between product structure and consumer preference
14:30 – 14:45	**[O.21] 3D printing of porous food structures contain *Lactobacillus plantarum* WCFS1** L. Zhang*[1,2], R.M. Boom[1], X.D. Chen[2], M.A.I. Schutyser[1], *[1]Wageningen University, The Netherlands, [2]Soochow University, China*
14:45 – 15:00	**[O.22] Digestive fates of dietary carrageenan: Linking biopolymer characteristics to effects on digestive proteolysis and gut functions in infants, adults and the elderly** S. David, N. Avidan, A. Shmueli, L. Fahoum, E.G. Meyron-Holtz, U. Lesmes*, *Technion, Israel*
15:00 – 15:15	**[O.23] A closer look to cell structural barriers affecting starch digestibility in beans** A.M. Rovalino-Córdova*, V. Fogliano, E. Capuano, *Wageningen University and Research, The Netherlands*
15:15 – 15:30	**[O.24] Toppings facilitate oral processing behavior of bread and crackers** A.C. van Eck*[1,2], V. Fogliano[1,2], E. Scholten[1,2], M.A. Stieger[1,2], *[1]TI Food and Nutrition, The Netherlands, [2]Wageningen University, The Netherlands*
15:30 – 16:00	Coffee break Room: Grand Salon C
16:00 – 16:30	**[KN06]** Julie Cichero	*University of Queensland, Australia* Making every mouthful count: Designing food for people with chewing or swallowing difficulties
16:30 – 16:45	**[O.25] The role of emulsifier physical state on the *in vitro* digestion of model oil-in-water emulsions** Q. Guo*, N. Bellissimo, D. Rousseau, *Ryerson University, Canada*
16:45 – 17:00	**[O.26] Influence of colloidal interface structuration on formulation and fatty acid bioaccessibility** C. Bourgeois*[1,2], A. Gomaa[1], L. Couedelo[2], M. Subirade[1], M. Cansell[2], *[1]INAF-University Laval, Canada, [2]CBMN-University of Bordeaux, France*
17:00 – 17:30	**[KN04] David Mela |** *Unilever, The Netherlands* **Structuring for nutritional benefits in commercial foods and beverages: from the lab to the marketplace**
17:30	**End Day 2**

Tuesday 5 June 2018	
Session 4 **Conference Topic: IDF Session 1: Constructing dairy matrices for oral and gut functionality** Session Co-Chair: Matt Golding Room: Grand Salon Opera AB	
08:45 – 09:15	**[KN09] Jason Stokes |** *University of Queensland, Australia* **TBC**
09:15 – 09:30	**[O.27] Mechanistic understanding of yogurt texture by linking data from instrumental methods to sensory attributes and creating a global texture model** C.E.P. Maljaars*, M.M.W.B. Hendriks, A. Sein, M. Nijmeijer, M.E.F. Schooneveld, J. Loos, D.I. Jacobs, O. May, *DSM Biotechnology Center, The Netherlands*
09:30 – 9:45	**[O.28] Supramolecular characteristics, morphology and functional properties of commercial**

	fat-filled powders from cow milk, goat milk and soy M.G. Reis*, C. Wang, D. Harland, V. Novotna, M.M. dos Reis, *AgResearch, New Zealand*
09:45 – 10:00	**[O.29] Influence of temperature and homogenisation pressure on molecular and structural modification of whole bovine milk** M.G. Reis*, P. Harris, H. Nguyen, B. Haigh, M. Weeks, *AgResearch, New Zealand*
10:00 – 10:15	**[O.30] Screening adhesive interactions between lactic acid bacteria and dairy components for designing functional food matrices** F. Gomand*, F. Borges, J. Burgain, J. Guerin, C. Gaiani, *Université de Lorraine, France*
10:15 - 10:30	**[O.31] Measuring real-time dairy powder hydration using video microscopy imaging and a new confocal microscopy technique** V.A. Maidannyk*[1], E. Lutjes[1,2], S. Montgomery[1], N. McCarthy[1], M.A.E. Auty[1], *[1]Teagasc Food Research Centre, Ireland, [2]Wageningen University, The Netherlands*
10:30 – 11:00	Coffee Break Room: Grand Salon C
11:00 – 11:15	**[O.32] Affecting casein micelles by PEF for inclusion of lipophilic organic compounds** D. Middendorf*, U. Bindrich, S. Töpfl, V. Heinz, *German Institue of Food Technologies, Germany*
11:15 – 11:30	**[O.33] Microstructure and properties of Mozzarella cheese assessed using high resolution FTIR microspectroscopic techniques** A.P. Pax[1,2], L. Ong[1,2], J. Vongsvivut[3], M.J. Tobin[3], S.E. Kentish[1], S.L. Gras*[1,2], *[1]The University of Melbourne, Australia, [2]The Bio21 Institute, Australia, [3]Infrared Microspectroscopy Beamline Australian Synchrotron, Australia*
11:30 – 11:45	**[O.34] Polyphenol fortification of yoghurt: Structure and texture effects** A. Acevedo-Fani*[1], S.M. Loveday[1], A. Renault[2], H. Singh[1], *[1]Massey University, New Zealand, [2]ENSAIA, Nancy, France*
11:45 – 12:00	**[O.35] How proteins aggregates can modulate the texture of emulsified and acidified dairy model systems** P. Gélébart*[1], M.H. Famelart[2], A. Riaublanc[1], M. Anton[1], C. Garnier[1], *[1]BIA, France, [2]STLO, France*
12:00 – 12:15	**[O.36] A mechanistic understanding of why sodium caseinate, but not whey protein isolate, forms viscoelastic nanogels from nanoemulsions** A. Patel, S. Ghosh*, *University of Saskatchewan, Canada*
12:15 – 12:30	**[O.37] Using low frequency ^{1}H-NMR and digital microscopy to describe yoghurt gel structure and serum entrapment** A. Gilbert*[1,2], L-E. Rioux[1,2], D. St-Gelais[2,3], S.L. Turgeon[1,2], *[1]Univérsité Laval, Canada, [2]STELA Dairy Research Center, Institute of Nutrition and Functional Foods, Canada, [3]Food Research and Development Center, Agriculture and Agri-Food Canada, Canada*
12:30 – 14:00	Lunch buffet & Poster session 3 Room: Grand Salon C
Session 5 **Conference Topic: IDF Session 2: Deconstructing dairy matrices for release of nutrient and flavor components** Session Co-Chair: Jason Stokes Room: Grand Salon Opera AB	
14:00 – 14:30	**[KN08] Sylvie Turgeon |** *Université Laval, Canada* **Is the dairy matrix structure modulating nutrients bioaccessibility and their health effects?**
14:30 – 14:45	**[O.38] Homogenisation and heat treatment of bovine milk affect in vitro gastric digestion** A-I. Mulet-Cabero*[1,2], A. Mackie[3], P. Wilde[1], M. Fenelon[2], A. Brodkorb[2], *[1]Quadram Institute Bioscience, UK, [2]Teagasc Food Research Centre, Ireland, [3]University of Leeds, UK*
14:45 – 15:30	**[FP.07] TBC**
14:45 – 15:30	**[FP.08] Pulsed electric field treatment to introduce protective solutes in probiotics for enhanced processing robustness** E.M.J. Vaessen*, H.M.W. den Besten, T. Patra, N.T.M. van Mossevelde, R.M. Boom, M.A.I. Schutyser, *Wagenigen University, The Netherlands*

14:45 – 15:30	**[FP.09] Stability of fat globules in UHT milk during proteolysis** C. Zhang*, E. Bijl, K. Hettinga, *Wageningen University & Research, The Netherlands*
14:45 – 15:30	**[FP.10] Covalent modification of whey proteins: physicochemical and functional properties** J.K. Keppler*[1], A. Steffen-Heins[1], S.C. Wilde[2], M-H. Ropers[3], B. Murphy[1], C. Berton-Carabin[4], V.M. Haramus[5], T. Coenye[6], K. Schwarz[1], *[1]Kiel University, Germany, [2]Nestlé Product Technology Centre Dairy, Switzerland, [3]INRA Nantes, France, [4]Wageningen University, The Netherlands, [5]Helmholtz-Zentrum Geesthacht, Germany, [6]Ghent University, Belgium*
14:45 – 15:30	**[FP.11] USAXS data and some modelling predictions for fluid milks and creams as well as fat-rich dairy products** F. Peyronel*[1], A. Marangoni[1], D. Pink[1,2], *[1]University of Guelph, Canada, [2]St. Francis Xavier University, Canada*
14:45 – 15:30	**[FP.12] Morphology development during sessile single droplet drying of milk components and maltodextrin** E.M. Both*, R.M. Boom, M.A.I. Schutyser, *Wageningen University, The Netherlands*
15:30 – 16:00	Coffee break Room: Grand Salon C
16:00 – 16:30	**[KN07] Elisabeth Guichard |** *INRA, France* **Food composition and structure, in-mouth breakdown, oral physiology and sensory perception: example of dairy products**
16:30 – 16:45	**[O.39] The structure of dairy products, as modified by processing, drives the kinetics of proteolysis and lipolysis in the GI tract and the bioavailability of nutrients** D. Dupont*, O. Menard, J. Floury, A. Deglaire, *INRA, France*
16:45 – 17:00	**[O.40] Biophysical aspects of lipid digestion in human breast milk and infant formulas** M.A. Rogers, *University of Guelph, Canada*
17:00 – 17:15	**[O.41] The effect of protein concentration and skim to pea protein isolate ratio on yoghurt microstructure, texture and sensorial attributes for dysphagia** A. Logan*[1], L. Reynaud[1,2], A. Puvanenthiran[1], M. Broch[1], I. Appelqvist[1], *[1]CSIRO Agriculture and Food, Australia, [2]AGROSUP Dijon, France*
17:15 - 17:30	**[O.42] Aroma analysis of a foamed dairy matrix by headspace gas chromatography-ion mobility spectrometry (HS-GC-IMS)** C. Thomas*[1], E. Scheef[1], Y. Zhang[2], J. Hinrichs[1], *[1]University of Hohenheim, Dept. Soft Matter Science and Dairy Technology, Germany, [2]University of Hohenheim, Dept. of Flavor Chemistry, Germany*
17:30	End of day 3
19:00 – 22:00	Conference Dinner (Optional – Ticketed Event) Venue: TBC

Wednesday 6 June 2018

Session 6
Conference Topic: Linking structure and functionality in foods using novel experimental and modelling approaches
Session Co-Chairs: Richard Ludescher and Andrew Mackey
Room: Grand Salon Opera AB

08:30 – 09:00	**[KN11]** Richard Ludescher | *Rutgers University, USA* Edible luminescent probes of food quality and stability
09:00 – 09:15	**[O.43] A high-throughput discovery platform targeting proteins with valuable functionality in food applications** J. Proulx, *Hampton Creek Inc., USA*
09:15 – 09:30	**[O.44] Observation of glassy state relaxation during freezing and drying of sugar solutions by X-ray computed tomography** K. Nakagawa, *Kyoto University, Japan*
09:30 – 09:45	**[O.45] Use of molecular modelling in structural analysis of soy and egg anti-nutrients** S.K. Vanga*, J. Wang, Y. Zhu, V. Raghavan, *McGill University, Canada*
09:45 – 10:00	**[A.1] Young scientist award**

10:00 – 10:30	Coffee break Room: Grand Salon C
10:30 – 11:00	**[A.2]** Dr Isaac Heertje Distinguished Scientist Award Winner
11:00 – 11:15	**[O.46] Dependency of chocolate gloss on properties of contact materials** K. Franke*, D. Middendorf, U. Bindrich, *DIL e.V., Germany*
11:15 – 11:30	**[O.47] Molecular structures of phospholipids in chocolate and their rheological impact - a molecular dynamics approach** M. Kindlein*, E. Elts, H. Briesen, *Technical University of Munich, Germany*
11:30 – 11:45	**[O.48] Imaging molecular protein at oil droplet interfaces for spoonable dressings** W.J. Borchert, M. Sillick*, *Ingredion Inc., USA*
11:45 – 12:00	Closing remarks
12:00 – 13:00	Lunch Room: Grand Salon C
13.00	End of conference