

Oral programme

Sunday, 14 June 2015				
09:30-12:30	Half day cultural tour			
Room	Meeting point Foyer			
12:45 – 15:45	Half day cultural tour			
Room	Meeting point Foyer			
14:00-16:00	Registration			
Room	Foyer			
16:00-18:30	Opening ceremony - Welcoming remarks – Dr. Michèle Marcotte - Welcoming remarks of Université Laval – Dr. Janice L. Bailey - Welcoming remarks of McGill University – Dr. Chandra Madramootoo - Welcoming remarks – Agriculture and Agri-Food Canada – Dr. Denis Petitclerc - Introduction to the scientific program – Dr. Hosahalli Ramaswamy - Honorary guest (VIP Speaker) - Mr Gilles Gagnon, CEO of CEAPRO - Awards Ceremony - Lifetime achievement awards - Distinguished service awards - Announcement of the Young Food Engineer award - ASABE/CSBE International Food Engineer awards			
18:30 – 19:00	Welcoming Ceremony Huron-Wendake Aboriginal Reserve			
Room	200C			
19:00-20:30	Cocktails and finger foods / Networking			
Room	200AB			
Monday, 15 June 2015				
07:30-08:30	Registration			
Room	Foyer			
08:30-09:30	[Plen.01] Educating the food engineer of 2030 - Challenges and opportunities R.P. Singh, <i>University of California, USA</i>			
Room	200C			
09:30-10:30	Refreshment break / Poster session 1 (part 1) / Exhibition			
Room	200AB			
10:30-12:30	Advances in Food Engineering 1: Cooling, freezing and crystallization	Engineering properties of foods and materials science 1: Thermophysical & Transport Properties	Special Session 4: Integrating Food Engineering across Europe – European Academy of Food Engineering (sponsored by the European Academy of Food Engineering, EAFE) Organizer: Y. Roos	Modeling in Food Engineering 1: Modelling and simulation
Chairs	Dr Alain Lebail, <i>ONIRIS, France</i>	Dr Shafiur Rahman, Sultan Qaboos <i>University, Sultanate of Oman and Dr Cristina Ratti, Université Laval, Canada</i>	Dr Yrjo Roos, <i>University College Cork, Ireland</i>	Dr Ashim Datta, <i>Cornell University, USA</i> and Dr Ferruh Erdogdu, <i>Ankara University, Turkey</i>
Room	202	206A	204AB	205ABC

10:30-11:00	<p>[K.01] Impact of surface roughness and of electrical disturbances on crystallization in food systems A. Le-Bail*¹, E. Xanthakis^{1,2}, H.S. Ramaswamy⁴, M. Havet¹, ¹<i>Oniris, UMR 6144 GEPEA CNRS, France</i>, ²<i>CNRS, France</i>, ³<i>SIK, Sweden</i>, ⁴<i>McGill University, Canada</i></p>	<p>[K.02] Smart uses of state diagram in food process engineering M.S. Rahman, <i>Sultan Qaboos University, Oman</i></p>	10:30-10:50 <p>[O3.01] PowTech - An integrated European approach of powder engineering L. Ahrne, <i>SP-Technical Research Institute of Sweden, Sweden</i></p>	10:30-11:00 <p>[K.03] Food physics: achievements and opportunities in quantitative understanding through mathematical modeling A.K. Datta, <i>Cornell University, USA</i></p>
11:00-11:15	<p>[O1.01] Towards more holistic performance evaluation of ventilated packaging for the fresh produce cold chain T. Defraeye*^{1,2}, P. Cronje⁴, U.L. Opara⁵, P. Verboven¹, B. Nicolai^{1,6}, ¹<i>MeBioS, Belgium</i>, ²<i>Laboratory for Building Science and Technology, Switzerland</i>, ³<i>Chair of Building Physics, Switzerland</i>, ⁴<i>Citrus Research International, South Africa</i>, ⁵<i>South African Research Chair in Postharvest Technology, South Africa</i>, ⁶<i>VCBT, Belgium</i></p>	<p>[O2.01] Towards rational design of functional food: mobility of nano- and micro-particles in polysaccharide networks P. Takhistov*, P. Huynh, <i>Rutgers, the State University of New Jersey, USA</i></p>	10:50-11:10 <p>[O3.02] Micro process engineering applications in food and biotechnology A. Mathys*, E. Georget, V. Heinz, <i>German Institute of Food Technologies DIL, Germany</i></p>	11:00-11:15 <p>[O4.01] Heat transfer optimization for food processing - smiling face of modelling F. Erdogdu, <i>Ankara University, Turkey</i></p>
11:15-11:30	<p>[O1.02] Kinetics of ice crystallisation in supercooled high concentration sugar solution R. Wang*, O. Gouseti, P.J. Fryer, S. Bakalis, <i>University of Birmingham, UK</i></p>	<p>[O2.02] Investigating the molecular basis for adhesion of bacterial spores to inert surfaces K. Xu Zhou*, I. Wilson, G. Christie, <i>University of Cambridge, UK</i></p>	11:10-11:30 <p>[O3.03] Novel insights into the effects of thermal and high pressure processes on the degradation and solution behavior of pectin A. Shpigelman*¹, C. Kyomugasho², S. Christiaens², A.M. Van Loey², M.E. Hendrickx², ¹<i>Technion-Israel Institute of Technology, Israel</i>, ²<i>KU Leuven, Belgium</i></p>	11:15-11:30 <p>[O4.02] Phase field simulations of ice crystallization in viscous media as sugar solutions R.G.M. van der Sman, <i>Wageningen University, The Netherlands</i></p>
11:30-11:45	[O1.03]	[O2.03]	11:30-11:50	11:30-11:45

	<p>The effect of wax seeding on fat crystallisation E. Costard*, R. Hancocks, I.T. Norton, <i>University of Birmingham, UK</i></p>	<p>Use of whey protein gel as an artificial tongue surface for tribological measurement of dairy products P.T.M. Nguyen*, B. Bhandari, S. Prakash, <i>The University of Queensland, Australia</i></p>	<p>[O3.04] Process combinations - Multi-target approaches in food processing and preservation H. Jaeger, <i>BOKU, Austria</i></p>	<p>[O4.03] Molecular modeling and simulation studies of the microscopic mechanisms involved during dehydration and rehydration of food systems J.C. Wang¹, R. Bruttini², A.I. Liapis*¹, ¹<i>Missouri University of Science and Technology, USA</i>, ²<i>Criofarma-Freeze Drying Equipment, Italy</i></p>
11:45-12:00	<p>[O1.04] A low temperature microscopy technique for the measurement of ice crystals and air bubbles size distribution in sorbets O.D. Hernandez Parra*¹, F.T. Ndoye¹, H. Benkhelifa^{2,3}, D. Flick^{2,3}, ¹<i>IRSTEA, France</i>, ²<i>AgroParisTech, France</i>, ³<i>INRA, France</i></p>	<p>[O2.04] Multi-scale study of cocoa powder ageing: relating fat behaviour to bulk properties C. Jacquot¹, J. Petit¹, F. Michaux¹, E. Chávez Montes*², V. Girard², J. Dupas², J. Scher¹, C. Gaiani¹, ¹<i>ENSAIA-Université de Lorraine, France</i>, ²<i>Nestlé PTC Orbe, Switzerland</i></p>	<p>11:50-12:10 [O3.05] New approaches for reducing micronutrient losses during processing and fortification L. Fries*¹, C. Pipe¹, L. Sagalowicz¹, C. Moccand¹, M. Michel¹, S. Palzer², J. Kammerhofer³, S. Heinrich³, ¹<i>Nestlé Research Center Lausanne, Switzerland</i>, ²<i>Nestlé Beverages Business Unit, Switzerland</i>, ³<i>Hamburg University of Technology, Germany</i></p>	<p>11:45-12:00 [O4.04] Modelling diffusion phenomena in food processing: a critical analysis of page's model R. Simpson*^{1,2}, S. Almonacid^{1,2}, C. Ramírez¹, J. Escudero¹, H. Nuñez¹, ¹<i>Universidad Técnica Federico Santa María, Chile</i>, ²<i>Centro Regional de Estudios en Alimentos Saludables, Chile</i></p>
12:00-12:15		<p>[O2.05] Thermal and structural characterization of two polyhydroxyalkanoates, obtained from cassava and pineapple wastes, by <i>Ralstonia eutropha</i> O.A. Vega*, L. Guiot, L. Wilches, E.J. Leon, A. Segura, <i>Antioquia University, Colombia</i></p>		<p>[O4.05] Numerical simulation for heat transfer and velocity field characteristics of particulate canned foods during end-over-end agitation F. Sarghini*¹, F. Erdogdu², ¹<i>University of Naples Federico II, Italy</i>, ²<i>Ankara University, Turkey</i></p>
12:15-12:30		<p>[O2.06] Relaxation times - Influence on texturisation of pasta-filata cheese B. Baehler*, M. Naegele, J. Hinrichs, <i>University of Hohenheim, Germany</i></p>		<p>[O4.06] Modelling of intensive water transport in a food matrix undergoing phase transition and swelling: application to rice cooking A. Briffaz*¹, P. Bohuon², C. Mestres¹, J.M. Meot¹, M. Dornier², ¹<i>CIRAD, France</i>, ²<i>Montpellier SupAgro, France</i></p>

12:30-14:00	Lunch			
Room	200C			
14:00-15:30	Special Session 2: Irregularities, upsets and breakdowns in food processing Organizer: Henry Schwartzberg	Advances in Food Engineering 2: Thermal processing	Advances in Food Engineering 3: Non thermal processing	Modeling in Food Engineering 2: Automation and process control
Chairs	Dr Henry Schwartzberg, <i>University of Massachusetts, USA</i>	Dr Sudhir Sastry, <i>The Ohio State University, USA</i> and Dr KP Sandeep, <i>North Carolina State University, USA</i>	Dr Kai Reineke, <i>Leibniz Institute for Agricultural Engineering (ATB), Germany</i>	Dr Michael McCarthy, <i>University of California, USA</i> and Dr Mukund Karwe, <i>Rutgers University, USA</i>
Room	202	206A	204AB	205ABC
14:00-14:30	[K.04] Irregularities, upsets and breakdowns in batch roasting of coffee H. Schwartzberg ^{*1} , J. Eichner ² , ¹ <i>University of Massachusetts, USA</i> , ² <i>Coffee Roasting Consultant, USA</i>	[K.05] A quarter-century of emerging process technologies: From the demonization of heat to the confluence of thermal and nonthermal S.K. Sastry, <i>The Ohio State University, USA</i>	[K.06] Process engineering principles in the development and application of high pressure based technologies for the food industry V.M. (Bala)Balasubramaniam*, S. I. Martinez-Monteagudo, B. Yan, S. Dhkal, and M. Zulkurnain, <i>The Ohio State University, USA</i>	[K.07] Noninvasive and nondestructive sensors for food process control M.J. McCarthy, <i>University of California, USA</i>
14:30-14:45	[O5.01] Perils of solids feeding J.P. Clark, <i>Foodexus LLC, USA</i>	[O6.01] Continuous flow microwave processing and process validation for particulate foods K.P. Sandeep ^{*1} , J. Simunovic ¹ , P. Coronel ² , ¹ <i>NC State University, USA</i> , ² <i>Aseptia Inc., USA</i>	[O7.01] The beneficial effects of isostatic high pressure and pulsed electric fields for the sterilization of solid and liquid foods K. Reineke ^{*1,2} , N. Meneses ^{2,3} , O. Schlüter ¹ , D. Knorr ² , ¹ <i>Leibniz Institute for Agricultural Engineering (ATB), Germany</i> , ² <i>Technische Universitaet Berlin, Germany</i> , ³ <i>Buehler AG, Switzerland</i>	[O8.01] Frozen dough: mathematical modelling and controller design T. Kondakci*, W. Zhou, <i>National University of Singapore, Singapore</i>
14:45-15:00	[O5.02] Stickiness issues in spray drying: mechanism, consequences and solution to improve the productivity B. Bhandari, <i>The University of Queensland, Australia</i>	[O6.02] Surface pasteurization of food packages by the method of inversion F. Challou*, M.J.H. Simmons, P.J. Fryer, <i>University of Birmingham, UK</i>	[O7.02] CFD investigation of pulsed electric fields treatment H. Abbas, S. Alkhafaji, M.M. Farid*, <i>University of Auckland, New Zealand</i>	[O8.02] Quantifying 3D flow properties in extrusion die entrance regions using real-time bubble tracking F.C. Birbaum ^{*1} , K.S. Mader ^{1,2} , R. Mokso ² , E.J. Windhab ¹ , ¹ <i>ETH Zürich, Switzerland</i> , ² <i>Paul Scherrer Institute, Switzerland</i>
15:00-15:15	[O5.03] Interpretation of	[O6.03] Kinetic description of	[O7.03] Molecular dynamics	[O8.03] Molecular dynamics as

	<p>randomly fluctuating quality control records and estimating failure probabilities M. Peleg, <i>University of Massachusetts, USA</i></p>	<p>UHT induced aggregation in milk concentrates: Comparison of direct steam injection and lab-scale indirect heating J. Dumpler*, U. Kulozik, <i>Technical University of Munich, Germany</i></p>	<p>simulations of the electric fields effects on protein structure P. Maresca*², J. Garrec³, G. Ferrari^{1,2}, M. Tarek³, ¹<i>University of Salerno, Italy</i>, ²<i>ProdAl Scarl, Italy</i>, ³<i>Université de Lorraine, France</i></p>	<p>a novel descriptive and predictive tool in food science and engineering M. Greiner*, H. Briesen, <i>Technische Universität München, Germany</i></p>
15:15-15:30	<p>[O5.04] Breakdowns and upsets in the canned foods industry A.A. Teixeira, <i>University of Florida, USA</i></p>		<p>[O7.04] Power ultrasound, high pressure and thermal processing for the inactivation of microbial spores E. Evelyn*^{1,2}, F.V.M. Silva¹, ¹<i>University of Auckland, New Zealand</i>, ²<i>University of Riau, Indonesia</i></p>	<p>[O8.04] Studying the potential of dissolved carbon dioxide sensor for monitoring and prediction the wine alcoholic fermentation behavior G. Garay¹, J. Reyes de Corcuera², M. Valdenegro³, A. Urtubia*^{1,3}, ¹<i>Universidad Técnica Federico Santa María, Chile</i>, ²<i>University of Georgia, USA</i>, ³<i>Centro Regional de Estudios en Alimentos Saludables, Chile</i></p>
15:30-15:45	<p>[O5.05] Cross contamination events during leafy green washing and metrics that can be measured in real time to determine the activity of free sanitizer in wash tanks K. Warriner, <i>University of Guelph, Canada</i></p>			
15:30-16:00	Refreshment break / Poster session 1 (part 2)/ Exhibition			
Room	200AB			
16:00-17:30	Emerging technologies and novel processes 1: New paths for food process innovation - material science	Engineering properties of foods and materials science 2: Packaging	Engineering properties of foods and materials science 3: Rheology I	Modeling in Food Engineering 3: Risk assessment: chemical or biological safety
Chairs	Dr Jose Miguel Aguilera, <i>Universidad Católica de Chile, Chile</i> and Dr Pieter Verboven, <i>KU Leuven, Belgium</i>	Prof Bruce Welt, <i>University of Florida, USA</i> and Prof Florencia Cecilia Menegalli, <i>University of Campinas, Brazil</i>	Dr Jozef Kokini, <i>Purdue University, USA</i> and Dr Jasim Ahmed, <i>Kuwait Institute for Scientific Research, Kuwait</i>	Dr Thierry Bénézech, <i>UMET, INRA-PIHM, France</i> and Dr Sébastien Villeneuve, <i>Agriculture and Agri-Food Canada, Canada</i>
Room	202	206A	204AB	205ABC

16:00-16:30	<p>[K.08] The engineering inside our dishes J.M. Aguilera, <i>Pontificia Universidad Católica de Chile, Chile</i></p>	<p>16:00-16:15 [O10.01] New technique for improving performance of gas transmission rate measurements in food packaging materials B.A. Welt, <i>University of Florida, USA</i></p>	<p>[K.09] The non-linear viscoelastic rheological properties of food materials - an overview advances in food engineering- food rheology J.L. Kokini, <i>Purdue University, USA</i></p>	<p>[K.10] Hygienic engineering is now facing new challenges in terms of food safety and sustainability: Susclean, a European research collaborative project involving 8 EU countries as a show-case T. Benezech*¹, C. Cunault¹, F. Henning², W. Augustin², L. Bouvier¹, C. Faille¹, ¹UMET UMR INRA 638, France, ²Technische Universität Braunschweig, Germany</p>
16:30-16:45	<p>[O9.01] From food (micro)structure to process and food design P. Verboven*¹, D. Cantre¹, W. Aregawi¹, M.G.M. Saenz³, Q.T. Ho¹, T. van Dyck^{1,2}, L. Van Campenhout², J. Claes², B. Nicolai¹, ¹KU Leuven, Belgium, ²KU Leuven Campus Geel, Belgium, ³INTI, Argentina</p>	<p>[O10.03] Optimization of the manufacture of corn protein based nanophotonic films as sensors using surface enhanced raman spectroscopy to detect gluten allergen protein E.A. Barber*¹, P.G. Gezer², J. Kokini^{1,2}, ¹Purdue University, USA, ²University Of Illinois Urbana-Champaign, USA</p>	<p>[O11.01] Effects of particle size on oscillatory rheology and creep behavior of selected flour doughs as influenced by water and temperature J. Ahmed, <i>Kuwait Institute for Scientific Research, Kuwait</i></p>	<p>[O12.01] CanGRASP: the Canadian GIS-based Risk Assessment, Simulation and Planning tool for food safety S. Villeneuve*¹, D.I. LeBlanc¹, L.H. Beni¹, A. Otten², A. Fazil², R. McKellar¹, P. Delaquis¹, ¹Agriculture and Agri-Food Canada, Canada, ²Public Health Agency of Canada, Canada</p>
16:45-17:00	<p>[O9.02] Novel X-ray phase-contrast tomography method for quantitative studies of the microstructure of meat-soy emulsions R. Miklos*¹, H. Einarsdottir¹, M.S. Nielsen¹, R. Lametsch¹, ¹University of Copenhagen, Denmark, ²Technical University of Denmark, Denmark</p>	<p>[O10.04] Discrimination of lard in extracted ink of printed packaging of foodstuff using fourier transform infrared spectroscopy and multivariate analysis S. Ramli, R.A. Talib*, R.A. Rahman, S.H. Othman, <i>Universiti Putra Malaysia, Malaysia</i></p>	<p>[O11.02] The effect of the normal force magnitude during initial loading on the non-linear rheological properties of dough in large amplitude oscillatory shear flow (LAOS) O. Duvarci*, G. Yazar, J. Kokini, <i>Purdue University, USA</i></p>	<p>[O12.02] Modelling of shrinkage, microbial spoilage and colour changes: a route to optimise food convective drying S. Curcio*, V. Calabro, G. Iorio, <i>University of Calabria, Italy</i></p>
17:00-17:15	[O9.03]	[O10.05]	[O11.03]	[O12.03]

	Food structure production using additive manufacturing methods R.D. Hancocks*, T.B. Mills, <i>University of Birmingham, UK</i>	Structural, morphological and micromechanical characterization of gelatin-bacterial cellulose edible food coatings F. Quero ¹ , A. Coveney ² , A. Lewandowska ³ , R. Richardson ² , P. Díaz ¹ , A. Alam ² , K. Lee ⁴ , S. Eichhorn ³ , J. Enrione ^{*1} , ¹ <i>Universidad de los Andes, Chile</i> , ² <i>University of Bristol, UK</i> , ³ <i>University of Exeter, UK</i> , ⁴ <i>University College London, UK</i>	Effect of heat treatment on the rheological and micro-structural properties of some dietary fiber suspensions E. Tornberg ^{*1} , H. Bengtsson ² , A. Castro ¹ , ¹ <i>Lund University, Sweden</i> , ² <i>Findus Sverige AB, Sweden</i>	A protocol for model identification in food thermal processing C. Vilas, A. Arias-Mendez*, M.R. Garcia, A.A. Alonso, J.I. Molina, E. Balsa-Canto, <i>Bioprocess Engineering Group (IIM-CSIC), Spain</i>
17:15-17:30	[O9.04] Determination of chemical and physical impact during flour production on the structure and function of wheat components L. Bruetsch ^{*1} , A. Baumann ² , E.J. Windhab ¹ , ¹ <i>ETH Zurich, Switzerland</i> , ² <i>Bühler AG Uzwil, Switzerland</i>	[O10.06] Corrosion of aluminium cans during storage: effect of chloride and copper ions from beverage B.M.C. Soares ^{*1} , C.A.R. Anjos ² , S.T. Dantas ¹ , ¹ <i>Institute of Food Technology, Brazil</i> , ² <i>University of Campinas, Brazil</i>	[O11.04] Rheological investigations of gluten-free dough using a high pressure capillary rheometer V. Lammers*, E.J. Windhab, S. Gstöhl, <i>ETH Zurich, Switzerland</i>	[O12.04] Bacterial transport into a tomato during hydrocooling: comprehensive transport model and experiments A. Warning*, A.K. Datta, <i>Cornell University, USA</i>
Tuesday, 16 June 2015				
07:30-08:30	Registration			
08:30-09:30	Industry panel discussion 'Convergence on food innovation for health and wealth' organized by Laurette Dubé, <i>McGill University, Canada</i>			
Room	200C			
09:30-10:30	Refreshment break / Poster session 2 (part 1) / Exhibition			
Room	200AB			
10:30-12:30	Advances in Food Engineering 4: Drying and dehydration	Engineering properties of foods and materials science 4: Structural Properties	Special Session 3: Open Innovation & Partnerships: A Platform for Meeting Food Engineering Future Challenges Organizer: Sam Saguy	Emerging technologies and novel processes 2: Post-harvest Technology
Chairs	Prof Sakamon Devahastin, <i>King Mongkut's University of Technology Thonburi, Thailand</i> and Dr Cristina Ratti, <i>Université Laval, Canada</i>	Dr Marilyn Rayner, <i>Lund University, Sweden</i> and Dr Vanessa Jury, <i>ONIRIS - UMR CNRS GEPEA, France</i>	Dr Sam Saguy, <i>The Hebrew University of Jerusalem, Israel</i> and Dr Sudhir Sastry, <i>The Ohio State University, USA</i>	Dr Vijaya Raghavan, <i>McGill University, Canada</i> and Dr Petros Taoukis, <i>National Technical University of Athens, Greece</i>
Room	202	206A	204AB	205ABC
10:30-11:00	[K.11] Innovative drying	[K.12] Novel processing of	10:30-10:55 [O15.01]	[K.13] Food engineering in

	<p>technologies for foods and agro-products A.S. Mujumdar, <i>McGill University, Canada</i></p>	<p>magneto-responsive bio-molecular colloids and application horizons in food and life sciences E.J. Windhab*, M. Liebi, <i>ETH Zurich, Switzerland</i></p>	<p>New frontiers in open innovation - Leveraging industry, government, academic collaboration T.K. Abraham, <i>Mondelez International, USA</i></p>	<p>the context of global challenges of food security and food safety V. Raghavan, <i>McGill University, Canada</i></p>
11:00-11:15	<p>[O13.01] Enhancement of gamma-aminobutyric acid (GABA) content in paddy by rapid heat treatment in an impinging stream dryer J. Techo, S. Prachayawarakorn, S. Devahastin*, S. Soponronnarit, <i>King Mongkut's University of Technology Thonburi, Thailand</i></p>	<p>[O14.01] Crystallisation behaviour and structural characteristics of fractionated milk fats in stearin and olein nanoemulsions T. Truong*¹, N. Bansal¹, M. Palmer², B. Bhandari¹, ¹<i>University of Queensland, Australia, 2</i><i>Dairy Innovation Australia Ltd., Australia</i></p>	<p>10:55-11:20 [O15.02] Open innovation in a global food company - PepsiCo S. Asante*, K. Rotem, M. Rao, <i>PepsiCo Global R&D, USA</i></p>	<p>11:00-11:30 [K.14] Cold chain management tools for shelf life labeling harmonization and reduction of food product waste P. Taoukis, <i>National Technical University of Athens, Greece</i></p>
11:15-11:30	<p>[O13.02] Microwave vacuum drying to produce rehydratable hydrocolloid microstructures (gels and fluid gels) I.E. Hamilton*, I.T. Norton, <i>University of Birmingham, UK</i></p>	<p>[O14.02] Structured starch pickering emulsions - encapsulation and freeze thaw stability applications M. Rayner*, A. Marefati, <i>Lund University, Sweden</i></p>	<p>11:20-11:45 [O15.03] Innovation in the food industry: Addressing consumer opportunities through holistic value propositions S. Palzer, <i>NESTEC Ltd., Switzerland</i></p>	
11:30-11:45	<p>[O13.03] Ultrasound enhancement of mass transfer in foods: describing the phenomena in dry foods A.C. Miano¹, A. Ibarz², P.E.D. Augusto*¹, ¹<i>Universit y of São Paulo (USP), Brazil, 2</i><i>University of Lleida (UdL), Spain</i></p>	<p>[O14.03] Multimodal image analysis for the characterization of complex wheat-dough microstructures K. Mathmann*, C. Heinzl, J. Kastner, <i>University of Applied Sciences Upper Austria, Austria</i></p>	<p>11:45-12:10 [O15.04] Open innovation: An academic perspective S.K. Sudhir*¹, I.S. Saguy², ¹<i>The Ohio State University, USA, 2</i><i>The Hebrew University of Jerusalem, Israel</i></p>	<p>11:30-11:45 [O16.01] Emerging strategies for the preservation of fresh fruits and vegetables J. Arul*, M.T. Charles, K. Siamak, R. Maharaj, A. Duarte-Sierra, N. Kouassi, R. Muvunyi, <i>Laval University, Canada</i></p>
11:45-12:00	<p>[O13.04] Prediction of regions of agglomeration along a spray dryer L. Malafronte*^{1,2}, L. Ahrné¹, F. Innings³, A. Jongsma³, A. Rasmuson², ¹<i>SIK- The Swedish Institute for Food and Biotechnology, Sweden, 2</i><i>Chalmers University of</i></p>	<p>[O14.04] Bread - pan interface; impact of crust structure on bread demolding V. Jury*^{1,2}, A. Rzigue^{1,2}, J.Y. Monteau^{1,2}, A. Le-Bail^{1,2}, A. Reguerre³, S. Chevallier^{1,2}, ¹<i>GEPEA UMR CNRS 6144, France, 2</i><i>ONIRIS, France, 3</i><i>UR1268 INRA, France</i></p>	<p>12:10-12:30 Panel discussion</p>	<p>11:45-12:00 [O16.02] Water loss and deformation of fresh cut apples during chilled storage W. Aregawi*¹, P. Verboven¹, T. Dresselaers¹, K. Govaerts¹, U. Himmelreich¹, B. Nicolai^{1,2}, ¹<i>University of Leuven, Belgium,</i></p>

	<i>Technology, Sweden,</i> <i>³Tetra Pak Processing Systems, Sweden</i>			<i>²VCBT, Flanders Centre of Postharvest Technology, Belgium</i>
12:00-12:15	[O13.05] Exploring the protective mechanisms of reconstituted skim milk during convective droplet drying of probiotics N. Fu ^{*1} , X. Zheng ¹ , M. Duan ¹ , M.W. Woo ² , C. Selomulya ² , X.D. Chen ¹ , ¹ <i>Soochow University, China,</i> ² <i>Monash University, Australia</i>	[O14.05] Structural collapse during the ice cream drip-through test M.M. Warren*, R.W. Hartel, <i>University of Wisconsin, Madison, USA</i>		12:00-12:15 [O16.03] Effect of light emitting diode irradiation on the ripening and quality of immature climacteric fruits during postharvest storage J-Y. Huang*, W. Zhou, <i>National University of Singapore, Singapore</i>
12:15-12:30	[O13.06] Control of the spraying stage in spray drying operation by dimensionless relations F. Ducept ^{*1,2} , V. Pistre ^{1,3} , S. Mezdour ^{1,2} , M. Sionneau ³ , G. Cuvelier ^{1,2} , ¹ <i>Agropari stech, France,</i> ² <i>INRA, France,</i> ³ <i>Techni Process, France</i>	[O14.06] Effect of emulsifiers on long term stability of oil-in-water emulsions encapsulating quercetin by microchannel emulsification N. Khalid ^{1,2} , I. Kobayashi ¹ , M.A. Neves ^{1,3} , K. Uemura ¹ , M. Nakajima ^{*1,3} , H. Nabetani ¹ , ¹ <i>National Food Research Institute, NARO, Japan,</i> ² <i>The University of Tokyo, Japan,</i> ³ <i>University of Tsukuba, Japan</i>		12:15-12:30 [O16.04] Impact of postharvest washing techniques on the microbial community of endive salad A. Fröhling ^{*1} , B. Kramer ² , P. Muranyi ² , O. Schlüter ¹ , ¹ <i>Leibniz Institute for Agricultural Engineering Potsdam-Bornim, Germany,</i> ² <i>Fraunhofer Institute for Process Engineering and Packaging IVV, Germany</i>
12:30-14:00	Lunch			
Room	200C			
14:00-15:30	Emerging technologies and novel processes 3: Oral Processing	Engineering properties of foods and materials science 6: Rheology II	Engineering properties of foods and materials science 5: Functional Properties	Advances in Food Engineering 5: Hygiene and cleaning
Chairs	Dr Markus Stieger, <i>Wageningen University, The Netherlands</i> and Dr Michèle Marcotte, <i>Agriculture and Agri-Food Canada, Canada</i>	Dr Arthur Teixeira, <i>University of Florida, USA</i>	Prof Salwa Karboune, <i>McGill University, Canada</i> and Prof Valerie Orsat, <i>McGill University, Canada</i>	Dr Peter Fryer, <i>University of Birmingham, UK</i> and Prof Enrique Ortega-Rivas, <i>University of Chihuahua, Mexico</i>
Room	202	206A	204AB	205ABC
14:00-14:30	[K.15] Food structure, oral processing behaviour and dynamic texture perception M. Stieger ^{1,2} , ¹ <i>Wageningen University, The</i>	14:00-14:15 [O18.01] Effects of structural and compositional parameters on viscoelastic properties of melted ice cream D.O. Freire ^{1,2} , M.M.	14:00-14:30 [K.16] Functional properties of pectin extracted from pomelo peel using high pressure processing X. Guo, J. Wu, X. Liao*, <i>China Agricultural</i>	14:00-14:30 [K.17] Hygiene and cleaning: predicting cleaning times to increase process safety and operational efficiency P.J. Fryer*, K.R. Goode,

	<i>Netherlands, ²TI Food and Nutrition, The Netherlands</i>	Warren ² , H. Firoozmand ² , R.W. Hartel* ² , ¹ University Of Wisconsin, USA, ² CNPq Scholar, Brazil	<i>University, China</i>	I. Palabiyak, P.T. Robbins, <i>University of Birmingham, UK</i>
		14:15-14:30 [O18.02] Evolution of adhesion between sliced bread dough and a solid surface during baking: effect of properties of solid surface and changing of rheological properties of dough L. Huault* ¹ , E. Privas ² , B. Heyd ¹ , S. Bistac ² , P. Giampaoli ¹ , V. Bosc ¹ , ¹ AgroParisTech-INRA, France, ² Université de Haute Alsace, France		
14:30-14:45	[O17.01] Predicting the mouthfeel attributes of dairy fluids using tribo-rheometry P.T.M. Nguyen, B. Bhandari, S. Prakash*, <i>The University of Queensland, Australia</i>	[O18.03] Investigating food breakdown pathways and criteria for swallowing A.K. Young* ¹ , J.N. Cheong ² , D.I. Hedderley ³ , M.P. Morgenstern ³ , B.J. James ¹ , ¹ The University of Auckland, New Zealand, ² Massey University, New Zealand, ³ The New Zealand Institute for Plant & Food Research Ltd, New Zealand	[O19.01] Functional ingredients from potato by-products: Innovative biocatalytic processes S. Karboune, <i>McGill University, Canada</i>	[O20.01] Influence of bacterial surface hydrophobicity on the decontamination process with gaseous and condensing hydrogen peroxide E. Eschlbeck*, S.A.W. Bauer, U. Kulozik, <i>Technische Universität München, Germany</i>
14:45-15:00	[O17.02] Mechanisms of bread destructuration during chewing F. Le Bleis ^{2,1} , L. Chaunier* ¹ , G. Della Valle ¹ , M. Panouillé ^{1,3} , P. Montigaud ² , A-L. Réguerre ¹ , ¹ INRA, France, ² Food Development, France, ³ AgroParisTech, France	[O18.04] Evaluation of the viscoelastic properties of tempered wheat kernels and their doughs using uniaxial compression test under small strain N. Ponce-García ^{1,2} , B. Ramírez-Wong* ¹ , P.I. Torres-Chávez ¹ , J.D. Figueroa-Cárdenas ³ , S.O. Serna-Saldívar ⁴ , M.O. Cortez-Rocha ¹ , A. Escalante-Aburto ¹ , ¹ Universidad de Sonora, Mexico, ² Universidad Autónoma del Estado de México, Mexico, ³ Centro de Investigación y de	[O19.02] Novel delivery systems for functional biomolecules V. Orsat*, K. Krishnaswamy, M. Xu, M-J. Dumont, <i>McGill University, Canada</i>	[O20.02] Zero discharge fluid dynamic gauging for studying the swelling of soft solid layers S. Wang*, D.I. Wilson, <i>University of Cambridge, UK,</i>

		<i>Estudios Avanzados del IPN, Mexico, ⁴Instituto Tecnológico de Estudios Superiores de Monterrey, Mexico</i>		
15:00-15:15	[O17.03] Elaboration and characterization of barley protein nanoparticles as an oral delivery system for lipophilic bioactive compounds J.S. Yang*, Y. Zhou, L. Chen, <i>University of Alberta, Canada</i>	[O18.05] Fabricated food gels as the carrier of nutrients: role of hydrocolloids and additives on product attributes S. Tiwari (Sharma), S. Bhattacharya*, <i>CSIR-Central Food Technological Research Institute, India</i>	15:00-15:15 [O19.03] Buttermilk as a source of functional MFGM proteins using an optimized isolation procedure W. Holzmüller*, O. Gmach, U. Kulozik, <i>Technische Universität München, Germany</i>	15:00-15:15 [O20.03] Monitoring deposit formation and its detaching process on a stainless steel surface by the quartz crystal microbalance based on admittance method (QCM-A) T. Hagiwara*, P. Nattawut, T. Sakiyama, <i>Tokyo University of Marine Science and Technology, Japan</i>
15:15-15:30	[O17.04] Impact of food gel fracture properties on in mouth breakdown and dynamic texture perception M. Devezeaux de Lavergne ^{1,2} , M. van Boekel ² , F. van de Velde ^{1,2} , M. Stieger ^{1,3} , ¹ <i>Ti Food and Nutrition, The Netherlands</i> , ² <i>Wageningen UR, The Netherlands</i> , ³ <i>NIZO Food Research, The Netherlands</i>		15:15-15:30 [O19.04] Fabrication and isolation of whey protein gel particles exhibiting enhanced foam stabilisation functionality A. Lazidis* ¹ , R.D. Hancocks ¹ , F. Spyropoulos ¹ , M. Kreuss ² , R. Berrocal ² , I.T. Norton ¹ , ¹ <i>University of Birmingham, UK</i> , ² <i>Nestlé Product Technology Center Konolfingen, Switzerland</i>	15:15-15:30 [O20.05] Microwave disinfestation and quality analysis of peanut kernels H.R. Patil*, I. Das, G. Kumar, N.G. Shah, <i>IIT Bombay, India</i>
15:30-16:00	Refreshment break / Poster session 2 (part 2)/ Exhibition			
Room	200AB			
16:00-17:30	Emerging technologies and novel processes 4: In vitro digestion and digestive system	16:00-17:10 IUFoST Session	16:00-17:30 Advances in Food Engineering 6: High pressure processing	16:00-17:30 Modeling in Food Engineering 4: Kinetics modelling: microbiology and quality
Chairs	Dr Xiao Dong Chen, <i>Soochow University, China</i> and Dr Fanbin Kong, <i>University of Georgia, USA</i>	organised by Judith Meech, <i>IUFoST</i>	Dr Gustavo Barbosa-Cánovas, <i>Washington State University, USA</i> and Dr Roman Buckow, <i>CSIRO, Australia</i>	Prof Micha Peleg, <i>University of Massachusetts, USA</i> and Dr Catherine Bonazzi, <i>INRA, France</i>
Room	202	206A	204AB	205ABC

16:00-16:30	[K.18] "Near real" approach to the development of in-vitro digestion track models X.D. Chen, <i>Soochow University, China</i>	[K.19] Future of food engineering: Leadership skills and mentoring S. Saguy, <i>The Hebrew University of Jerusalem, Israel</i>	[K.20] Nonthermal processing of food G.V. Barbosa-Cánovas, <i>Washington State University, USA</i>	[K.21] Opportunities for optimization of food preservation processes D.R. Heldman, <i>The Ohio State University, USA</i>
16:30-16:45	[O21.01] Using dynamic gastric digestion model to study activity of supplemental enzymes F. Kong*, D.T. Do, <i>University of Georgia, USA</i>	17:10-18:10 Special Session 5: Food fortification technologies for a globalized world Organizer: Dr L. Diosady, University of Toronto, Canada	16:30-16:45 [O23.01] Texture engineering of meat systems by high pressure processing R. Buckow*, A. Sikes, <i>CSIRO Food and Nutrition Flagship, Australia</i>	16:30-16:45 [O24.01] Estimating microbial thermal inactivation and nutrients chemical degradation parameters by the endpoints method M. Peleg, <i>University of Massachusetts, USA</i>
16:45-17:00	[O21.02] Age-tailoring digestibility: studying emulsion digestive fate in infants, adults and the elderly using dynamic in vitro digestion models C. Shani-Levi, R. Magid, U. Lesmes*, <i>Technion - Israel Institute of Technology, Israel</i>	17:10-17:30 [O22.01] Micronutrient delivery technology platforms Y.O. Li, <i>Cal Poly Pomona, USA</i>	16:45-17:00 [O23.02] Break-up and re-coalescence phenomena induced by high pressure homogenization: effect of the homogenization valve geometry F. Donsi ^{1*} , M. Sessa ² , G. Ferrari ^{1,2} , ¹ <i>University of Salerno, Italy</i> , ² <i>ProdAl Scarl, Competence Center on Agro-Food Productions, Italy</i>	16:45-17:00 [O24.02] Modeling of bacterial inactivation by high hydrostatic pressure M. Gänzle <i>University of Alberta, Canada</i>
17:00-17:15	[O21.03] Formulation and characterisation of a food derived peptide into a nanoparticle oral drug delivery system using a design of experiment approach M. Khalid ^{*1} , J.M. Fraix ¹ , H.J. Byrne ¹ , S.M. Ryan ² , ¹ <i>Dublin Institute of Technology, Ireland</i> , ² <i>University College Dublin, Ireland</i>	17:30-17:50 [O22.02] <i>France</i> Technology development of microencapsulation-based fortification technologies for saving lives at birth and technology transfer L.L. Diosady, <i>University of Toronto, Canada</i>	17:00-17:15 [O23.03] Effect of high pressure treatment on protein oxidation in minced beef raw meat C. Guyon ^{*1} , L. Pottier ¹ , A. Meynier ² , M. de Lamballerie ¹ , ¹ <i>ONIRIS GEPEA, France</i> , ² <i>INRA BIA, France</i>	17:00-17:15 [O24.03] An original approach to study ascorbic acid degradation kinetics as a function of temperature (50-90 °C) and O₂ concentration (0-30%) B. Gomez Ruiz ^{1,2} , S. Roux ^{1,2} , F. Courtois ^{1,2} , C. Bonazzi ^{*1,2} , ¹ <i>INRA, France</i> , ² <i>AgroParisTech, France</i>
17:15-17:30	[O21.04] Mechanistic approaches towards understanding the kinetics of gastric digestion Q. Luo*, R.M. Boom, A.E.M. Janssen, <i>Wageningen</i>	17:50-18:10 [O22.03] Food fortification - successes from the past and moving into the future M-E. Labonté*, M.R. L'Abbé <i>University of Toronto,</i>	17:15-17:30 [O23.04] High pressure processing of berry pomaces into high value functional ingredients P.R. Venskutonis, <i>Kaunas University of Technology, Lithuania</i>	17:15-17:30 [O24.04] On the limitations of the log-logistic model for the analysis of high pressure processing (HPP) microbial inactivation data following sigmoidal

	<i>University, The Netherlands</i>	<i>Canada</i>		trends V. Serment-Moreno* ¹ , C. Fuentes ² , G. Barbosa-Cánovas ³ , J.A. Torres ² , J. Welte- Chanes ¹ , ¹ <i>Tecnológico de Monterrey, Mexico,</i> ² <i>Oregon State University, USA,</i> ³ <i>Washington State University, USA</i>
Wednesday, 17 June 2015				
08:30-09:30	[Plen.02] Innovation strategies for a sustainable business V. Nannini, <i>Nestec, Switzerland</i>			
Room	200C			
09:30-10:30	Refreshment break / Poster session 3 (part 1)/ Exhibition			
Room	200AB			
10:30-12:30	Advances in Food Engineering 7: Fluid mechanics and mixing	Special Session 1: Food Quality Evaluation Throughout the Food Chain: A State-of-the-Art Approach Integrating Fingerprinting and Kinetic Principles Organizer- Tara Grauwet (Belgium)	Food Engineering Open Session	Modeling in Food Engineering 5: Novel approaches in modelling
Chairs	Dr Ian Wilson, <i>University of Cambridge, UK</i> and Dr Keshavan Niranjana, <i>University of Reading, UK</i>	Dr Tara Grauwet, <i>KU Leuven, Belgium</i>	Dr Jorge Welte-Chanes, <i>Tecnológico de Monterrey, Mexico</i> and Dr Weibiao Zhou, <i>National University of Singapore, Singapore</i>	Dr Gilles Trystram, <i>AgroParisTech, France</i> and Dr Kai Knoerzer, <i>CSIRO, Australia</i>
Room	202	206A	204AB	205ABC
10:30-11:00	[K.22] Food fluid mechanics: Soft solids or stiff liquids? I. Wilson, <i>University of Cambridge, UK</i>	[K.24] From fingerprinting to kinetics in evaluating food quality changes T. Grauwet*, B. Kebede, S. Palmers, S. Wibowo, M. Hendrickx, A. Van Loey, <i>KU Leuven, Belgium</i>	[K.25] Transport phenomena in food engineering: advances and future J. Welte-Chanes, <i>Escuela de Ingeniería y Ciencias, Tecnológico de Monterrey, Mexico</i>	[K.27] Multiscale modeling and simulation in food: new perspectives G. Trystram*, O. Vitrac, <i>AgroParisTech, France</i>
11:00-11:30	[K.23] The role of mixing in the creation structured foods K. Niranjana, <i>University of Reading, UK</i>	11:00-11:15 [O26.01] Designing plant foods for health: Modelling beyond farm to fork M. Dekker*, R. Verkerk, <i>Wageningen University, The Netherlands</i>	11:00-11:30 [K.26] Physicochemical and structural properties of bakery products leading to improved nutritional properties W. Zhou* ¹ , J. Gao ¹ , J. Henry ² , ¹ <i>National University of Singapore, Singapore,</i> ² <i>Singapore Institute of Clinical Science, Singapore</i>	11:00-11:15 [O28.01] Innovative food processing technologies: multiphysics simulation for equipment design and process optimisation K. Knoerzer* ¹ , P. Juliano ¹ , R. Buckow ¹ , F.J. Trujillo ² , ¹ <i>Commonwea lth Scientific and</i>

				<i>Industrial Research Organisation, Australia, ²The University of New South Wales, Australia</i>
		11:15-11:30 [O26.02] Comparing the quality impact of thermal and high pressure high temperature sterilization immediately after processing: from fingerprinting to kinetics B.T. Kebede*, T. Grauwet, S. Palmers, M. Hendrickx, A. Van Loey, <i>KU Leuven, Belgium</i>		11:15-11:30 [O28.02] Modelling of cheese mechanics and mass transport (carbon dioxide) around an expanding gas bubble in semi-hard cheese: model validation using dynamic and non invasive MRI measurements and sensitivity analysis to mechanical and mass transport parameters D. Grenier* ^{1,2} , Y. Laridon ^{1,2} , C. Doursat ^{3,4} , D. Huc ^{1,3} , D. Flick ^{3,4} , T. Lucas ^{1,2} , ¹ <i>Irstea, UR TERE, France,</i> ² <i>Université Européenne de Bretagne, France,</i> ³ <i>AgroParisTech, France,</i> ⁴ <i>INRA, France,</i> ⁵ <i>CNAM, France</i>
11:30-11:45	[O25.01] Dynamics of the residence time of barley grains in a vibrating apparatus S. Keppler* ¹ , S. Bakalis ¹ , C.E. Leadley ² , P.J. Fryer ¹ , ¹ <i>University of Birmingham, UK,</i> ² <i>Campden BRI, UK</i>	[O26.03] Furan formation throughout the food chain: prospects for furan mitigation S. Palmers*, T. Grauwet, M. Celus, B.T. Kebede, M.E. Hendrickx, A. Van Loey, <i>KU Leuven, Belgium</i>	[O27.01] Acceleration of lyophilization and vacuum dehydration with microwave energy transfer T. Durance, <i>EnWave Corporation, Canada</i>	[O28.03] Mathematical modeling for shrinkage and browning distribution analysis of eggplant undergoing simultaneous heat and moisture transfer during broiling processes Y. Llave* ¹ , K. Takemori ¹ , M. Fukuoka ¹ , T. Takemori ² , H. Tomita ² , N. Sakai ¹ , ¹ <i>Tokyo University of Marine Science and Technology, Japan,</i> ² <i>Osaka Gas Co., Ltd., Japan</i>
11:45-12:00	[O25.02] Flow regime assessment in falling film evaporators using residence time distribution functions A.C.P. Silveira* ^{1,2} , G. Tanguy ^{3,1} , F. Ducept ⁴ ,	[O26.04] Automatic identification of maple syrup taste defects by use of front face fluorescence spectroscopy A. Clément* ¹ , F. Éthier ² ,	[O27.02] Sucrose crystallization induced by water from amorphous powder M. Dupas-Langlet*, H. Ketari, V. Meunier, L. Forny, <i>Nestle Research Center, Switzerland</i>	[O28.04] A fundamental analysis of the mixing efficiency and emptying pathways of gastric contents during digestion Z. Xue ¹ , M.J. Ferrua* ² ,

	I.T. Perrone ² , R. Jeantet ^{1,3} , A.F. Carvalho ² , P. Schuck ² , ¹ AgroCampus-Ouest, France, ² Federal University of Viçosa, Brazil, ³ INRA UMR 1253 - STLO, France, ⁴ AgroParisTech, France	B. Panneton ¹ , L. Lagacé ² , ¹ Agriculture and Agri-Food Canada, Canada, ² Centre ACER, Canada		R.P. Singh ^{1,2} , ¹ University of California, USA, ² Riddet Institute, New Zealand
12:00-12:15	[O25.03] Chocolate paste: characterisation of a rheologically complex material in an industrial mixing process C. Iosson* ¹ , S. Bakalis ¹ , P.J. Fryer ¹ , A.J. Brown ² , L. Harris ² , T. Freeman ³ , D. Millington-Smith ³ , B. Armstrong ³ , A. Ingram ¹ , ¹ University of Birmingham, UK, ² Mondelez UK R&D Limited, UK, ³ Freeman Technology Limited, UK		[O27.03] PGX - Technology : a platform technology for novel biopolymer ingredients B. Seifried, <i>Ceapro Inc., Canada</i>	[O28.05] Modelling of coupled heat and electric field distribution during ohmic heating of solid foods with varying sizes A.H. Feyissa* ¹ , N. Bøknæs ² , P.L. Nielsen ² , S. Frosch ¹ , ¹ Technical University of Denmark, Denmark, ² Royal Greenland A/S, Denmark
12:15-12:30	[O25.04] Powder-liquid mixing process for production of homogeneous food composite structures with low water or fat K. Slettengren*, E.J. Windhab, <i>Swiss Federal Institute of Technology Zurich (ETHZ), Switzerland</i>			[O28.06] Modelling and experimental validation of bread baking with focus on global and local deformation C. Doursat* ^{1,2} , V. Nicolas ^{1,4} , D. Grenier ⁴ , T. Lucas ⁴ , D. Flick ^{1,2} , ¹ AgroParisTech, France, ² INRA, France, ³ CNAM, France, ⁴ IRSTEA, UR TERE, France
12:30-14:00	Lunch			
Room	200C			
14:00-15:30	Advances in Food Engineering 8: Food process design	Emerging technologies and novel processes 2: New paths for food process innovation - processes	Process Validation	Sustainable Engineering 1: Life cycle approach and carbon foot print
Chairs	Dr Martin Okos, <i>Purdue University, USA</i> and Dr Timothy Durance, <i>EnWave Corporation, Canada</i>	Dr Osato Miyawaki, <i>Ishikawa Prefectural University, Japan</i> and Dr Feral Temelli, <i>University of Alberta, Canada</i>	Dr Khalid Abdelrahim, <i>Nestle North America, USA</i> and Dr Hosahalli Ramaswamy, <i>McGill University, Canada</i>	Dr Dominique Maxime, <i>Polytechnique Montréal, Canada</i> and Dr Magdalini Krokida, <i>National Technical University of Athens, Greece</i>

Room	202	206A	204AB	205ABC
14:00-14:30	<p>[K.28] An engineering approach to cereal product/process development M.R. Okos, <i>Purdue University, USA</i></p>	<p>14:00-14:15 [O30.01] Effect of vacuum frying on starch gelatinization and in vitro starch bioaccessibility in starchy matrices I. Contardo*¹, J. Parada², P. Bouchon¹, ¹<i>Pontificia Universidad Católica de Chile, Chile</i>, ²<i>Universidad Austral de Chile, Chile</i></p> <p>14:15-14:30 [O30.02] Integrated system of progressive freeze-concentration combined with partial ice-melting for yield improvement and its application O. Miyawaki*¹, C. Omote¹, M. Gunathilake², A. Tagami³, H. Matsubara³, S. Kimura³, S. Kitano³, ¹<i>Ishikawa Prefectural University, Japan</i>, ²<i>Sri Jayewardenepura University, Sri Lanka</i>, ³<i>Maywa Co. Ltd., Japan</i></p>	<p>14:00-14:30 [K.29] Engineering and microbiological principles of aseptic processes of low acid foods K. Abdelrahim^{1,2}, ¹<i>Nestlé, USA</i>, ²<i>Nestlé, Canada</i></p>	<p>14:00-14:30 [K.31] Life cycle assessment of food and eco-design in the food industry D. Maxime, <i>CIRAIG, Polytechnique Montréal, Canada</i></p>
14:30-14:45	<p>[O29.01] Effect of interfacial elasticity on bubble size in foam generated in a rotor-stator device E. Séguineau de Prével, F. Ducept, P. Granda, G. Cuvelier, S. Mezdour*, <i>AgroParis Tech, France</i></p>	<p>[O30.03] Plasma-protein interactions: Impact of cold atmospheric pressure plasma on composition, structure and functionality of model proteins S. Bußler¹, H. Rawel², O. Schlüter*¹, ¹<i>Leibniz-Institute for Agricultural Engineering (ATB) Potsdam, Germany</i>, ²<i>University of Potsdam, Germany</i></p>	<p>14:30-15:00 [K.30] Process validation: Pasteurization H.S. Ramaswamy, <i>McGill University, Canada</i></p>	<p>14:30-14:45 [O32.01] Life cycle analysis of astaxanthin extraction techniques from <i>Haematococcus pluvialis</i> S. Papadaki, M. Chronis, A. Pappa, M. Krokida*, <i>National Technical University of Athens, Greece</i></p>
14:45-15:00	<p>[O29.02] Multi-variate optimization of reciprocation container agitation thermal processing of liquid particulate mixtures using a hybrid genetic</p>	<p>[O30.04] Pressure non-uniformity during high pressure processing of heterogeneous foods J.A. Maldonado, A. Nair, D.W. Schaffner, A. Cuitiño, M.V. Karwe*, <i>Rutgers, the</i></p>		<p>14:45-15:00 [O32.02] Holistic view of CO₂ reduction potential from energy use by an individual food processing company J.J. Fitzpatrick*, P. Dooley, <i>University</i></p>

	algorithm A.P. Singh*, A. Singh, H.S. Ramaswamy, <i>McGill University, Canada</i>	<i>State University of New Jersey, USA</i>		<i>College Cork, Ireland</i>
15:00-15:15	[O29.03] Modelling of the interaction between the acoustic, bubble and hydrodynamic fields during acoustic processing on ultrasonic horn reactors Y. Gadi Man ¹ , K. Knoezer ² , F.J. Trujillo* ¹ , ¹ <i>University of New South Wales, Australia</i> , ² <i>CSIRO, Australia</i>	[O30.05] Combining two non- thermal treatments to obtain dehydrated cape gooseberry (physalis peruviana l.): osmotic dehydration and vacuum microwave D.A. Calle Mesa*, L.M. Castañeda Hoyos, L.F. Hoyos Herrera, D.A. López Taborda, <i>University of Antioquia, Colombia</i>	[O31.01] Pasteurization of beer by pulsed electric fields, high pressure processing and power ultrasound E. Milani*, F.V.M. Silva, <i>University of Auckland, New Zealand</i>	[O32.03] A modified concept of the water footprint H. Schubert, <i>Karlsruhe Institute of Technology, Germany</i>
15:15-15:30	[O29.04] The 3D nanostructure of a dairy-like emulsion: Towards engineering of emulsions on the nano-scale M.S. Nielsen*, M.B. Munk, A. Diaz, K. Mortensen, R. Feidenhans'l, J. Risbo, <i>University of Copenhagen, Denmark</i>		[O31.02] Inactivation of <i>Escherichia coli</i> and <i>Salmonella typhimurium</i> in milk by high pressure processing at subzero temperatures S. Bulut, <i>Trakya University, Turkey</i>	[O32.04] Thermal and emission charaterization of rice husk combustion E.M. Kwofie*, M.O. Ngadi, R. Kok, <i>McGill University, Canada</i>
15:30-16:00	Refreshment break / Poster session 3 (part 2)/ Exhibition			
Room	200AB			
16:00-17:30	Advances in Food Engineering 9: Equilibrium & phase transitions	Emerging technologies and novel processes 6: Bioprocessing	Advances in Food Engineering 10: Image processing	Sustainable Engineering 2: Food process sustainability
Chairs	Dr Yrjo Roos, <i>University College Cork, Ireland</i> and Dr Ian Wilson, <i>University of Cambridge, UK</i>	Dr Maarten Schutyser, <i>Wageningen University, The Netherlands</i> and Dr Eugene Vorobiev, <i>Université de Technologie de Compiègne, France</i>	Dr Da-Wen Sun, <i>National University of Ireland, Ireland</i> and Dr Michael Ngadi, <i>McGill University, Canada</i>	Dr Samir Mezdour, <i>AgroParistech, France</i> and Dr Jose M.del Valle, <i>Pontificia Universidad Católica de Chile, Chile</i>
Room	202	206A	204AB	205ABC
16:00-16:30	[K.32] Phase and state transitions - Insights into food and structure engineering Y.H. Roos, <i>University College Cork, Ireland</i>	[K.33] Supercritical fluid technology for functional ingredients: from fundamentals to innovation F. Temelli, <i>University of Alberta, Canada</i>	[K.34] Recent advances in hyperspectral imaging technology for food safety and quality control D-W. Sun ^{1,2} , ¹ <i>South China University of Technology, China</i> , ² <i>National University of</i>	[K.35] Insect biorefinery as a promising solution S. Mezdour, <i>AgroParisTe ch, France</i>

			<i>Ireland, Ireland</i>	
16:30-16:45	<p>[O33.01] Studying phase transformations in cocoa butter using a droplet freezing device A.M. Talhat¹, J. Rasburn², C. Peng-Siong², G.D. Moggridge¹, D.I. Wilson^{*1}, ¹University of Cambridge, UK, ²Nestle PTC York, UK</p>	<p>[O34.01] Single droplet analysis for spray drying of probiotic bacteria M.A.I. Schutyser^{*1}, J. Perdana¹, M.B. Fox², R.M. Boom¹, ¹Wageningen University, The Netherlands, ²Nizo food research, The Netherlands</p>	<p>[O35.01] A non-destructive evaluation of eggshell strength during incubation, using hyperspectral imaging A.O. Adegbenjo*, M. Ngadi, L. Liu, <i>McGill University, Canada</i></p>	<p>[O36.01] New biodegradable and compostable food packaging based on complete reuse of waste derived by industry of canned vegetables T. De Pilli*, A. Derossi, C. Severini, <i>University of Foggia, Italy</i></p>
16:45-17:00	<p>[O33.02] Effect of high pressure on phase transition of water in food materials and its applications to pressure shift freezing and pressure thawing S.M. Zhu^{*1}, G.M. Su¹, H.S. Ramaswamy², A. Le Bai³, Y. Yu¹, ¹Zhejiang University, China, ²McGill University, Canada, ³GEPA-ENITIAA, France</p>	<p>[O34.02] Extraction from food plants, byproducts and wastes assisted by pulsed electric energy E. Vorobiev^{*1}, N.I. Lebovka^{1,2}, ¹Université de Technologie de Compiègne, France, ²NAS of Ukraine, Ukraine</p>	<p>[O35.02] Measuring cheese maturation by integrated use of fluorescence fingerprint and near infrared spectroscopy M. Kokawa^{*1,2}, S. Ikegami³, A. Chiba³, H. Koishihara³, J. Sugiyama¹, M. Tsuta¹, K. Fujita¹, T. Vipavee¹, ¹National Food Research Institute, Japan, ²KU Leuven, Belgium, ³Morinaga Milk Industry Co., Ltd., Japan</p>	<p>[O36.02] Sustainable production of biodiesel and protein by integrating isopropyl alcohol extraction and recovery from yellow mustard S. Sinichi, L. Diosady*, <i>University of Toronto, Canada</i></p>
17:00-17:15	<p>[O33.03] Design and fabrication of novel lipid-based edible Pickering particles for emulsion stabilisation I. Zafeiri^{*1}, J. Norton¹, P. Smith², I. Norton¹, F. Spyropoulos¹, ¹University of Birmingham, UK, ²Cargill, R&D Centre Europe, Belgium</p>	<p>[O34.03] Engineering design of potent and selective antibacterial peptides P.A. Carvajal-Rondanelli*, M. Arostica, S. Marshall, C.A. Alvarez, C. Ojeda, L.F. Aguilar, F. Guzman, <i>Pontificia Universidad Catolica de Valparaiso, Chile</i></p>	<p>[O35.03] Novel multipoint NIRS: Overcoming the limitation of sample heterogeneity by prediction of minced beef in static and motion conditions Y. Dixit*, M. Casado, R. Cama, T. El Arnaout, F. Jacoby, P.J. Cullen, C. Sullivan, <i>Dublin Institute of Technology, Ireland</i></p>	<p>[O36.03] Food ingredient or by-product? Distiller's grains potential as functional ingredient in bakery products M. Roth*, M. Jekle, T. Becker, <i>Technische Universität München, Germany</i></p>
17:15-17:30		<p>[O34.04] High pressure thermal sterilization (HPTS) from lab scale to pilot scale R. Sevenich¹, F. Bark¹, J. Hradecky³, C. Crews², C. Pye², K. Reineke^{*4}, M. Lavilla⁵, D. Knorr¹, ¹Technische Universität Berlin, Germany, ²The Food and Environment Research</p>	<p>[O35.04] Identification of formulation effects on cake softness using a technique combining alveolar structure analysis with mechanical properties characterization M. Dewaest^{*1,3}, C. Villemejeane^{1,2}, S. Berland^{1,2}, A. Verel³, J. Clément³, C.</p>	<p>[O36.04] Performance of an hybrid system for urban wastewater treatment M. Torres-Ceron^{*1}, J.A. Vidales-Contreras¹, H. Rodriguez-Fuentes¹, E.J. Sánchez-Alejo¹, A.I. Luna-Maldonado¹, D.J. González-Mille², ¹Universidad Autónoma de Nuevo</p>

		Agency, UK, ³ Institute of Chemical Technology, Czech Republic, ⁴ Leibniz Institute for Agriculture Engineering (ATB) Potsdam, Germany, ⁵ AZTI Tecnalia, Spain	Michon ^{1,2} , ¹ AgroParisTech, France, ² INRA, France, ³ Mondelēz France R&D S.A.S, France	León, Mexico, ² Universidad Autónoma de San Luis Potosí, Mexico
19:00-22:30	Banquet dinner at Centre des Congrès			
Room	2000C			
Thursday, 18 June 2015				
08:30-10:30	Special Session 6: Future of Food Engineering (Trends!) Organizer: Marc Dreyer	Emerging technologies and novel processes 7: Separation processes	Advances in Food Engineering 11: Encapsulation	Sustainable Engineering 3: Efficient processes
Chairs	Prof. Stefan Palzer and Dr Marc Dreyer, Nestec Ltd, Switzerland	Dr Martin Mondor, Agriculture and Agri-Food Canada, Canada and Dr Laurent Bazinet, Université Laval, Canada	Dr Amparo Lopez-Rubio, IATA-CSIC, Spain and Dr Antonio Vicente, Universidade do Minho, Portugal	Dr Donald Cleland, Massey University, New Zealand and Dr Mustafa Ozilgen, Yeditepe University, Turkey
Room	202	206A	204AB	205ABC
08:30-9:00	[K.36] Future of food and future talents M. Dreyer, Nestec, Switzerland	[K.38] Modern separation processes in food engineering L.L. Diosady, University of Toronto, Canada	[K.39] Development of an impinging-aerosol process: a novel process to produce microgel particles for food and pharmaceutical applications B. Bhandari, The University of Queensland, Australia	[K.40] Carbon and water footprints - facts, myths and reality D.J. Cleland*, S.J. McLaren, Massey University, New Zealand
09:00-9:30	[K.37] The future of food engineering research - A European perspective B.M. McKenna, University College Dublin, Ireland	09:00-09:15 [O38.01] Recent developments in the use of membrane technologies for the production of new health ingredients/food products M. Mondor, Agriculture and Agri-Food Canada, Canada	09:00-09:15 [O39.01] Optimization of the electrospraying process for the microencapsulation and protection of probiotics L.G. Gomez-Mascaraque ¹ , R. Cruz Morfin ² , J.M. Lagaron ¹ , A. Lopez-Rubio ^{*1} , ¹ IATA-CSIC, Spain, ² Universidad de las Américas, Mexico	09:00-09:15 [O40.01] Exergy analysis of industrial bread waste minimization technologies F.K. Zisopoulos ^{*1} , S.N. Moejes ¹ , F.J. Rossier-Miranda ^{1,3} , A.J. van der Goot ¹ , R.M. Boom ¹ , ¹ Wageningen University, The Netherlands, ² Top Institute Food and Nutrition (TIFN), The Netherlands, ³ Wageningen UR Chile, Chile
		09:15-09:30 [O38.02] An innovative process for selective removal of β-lactoglobulin from whey N. Haller*, U.	09:15-09:30 [O39.02] Dual active encapsulation and release technologies for simple food emulsions F. Spyropoulos*, D.	09:15-09:30 [O40.02] Energy cost and environmental impact of party drinks and snacks production M. Ozilgen, Yeditepe

		Kulozik, <i>Technische Universität München, Germany</i>	Kurukji, I.T. Norton, <i>University of Birmingham, UK</i>	<i>University, Turkey</i>
09:30-09:45	[O37.01] Training and education strategies in food science and engineering towards a sustainable food supply chain P. Pittia* ^{1,2} , R. Costa ^{3,2} , C. Silva ⁴ , G. Schleinig ⁵ , ¹ <i>University of Teramo, Italy</i> , ² <i>ISEKI-Food Association, Austria</i> , ³ <i>Escola Superior Agrária, Portugal</i> , ⁴ <i>CBQF – Centro de Biotecnologia e Química Fina, Portugal</i> , ⁵ <i>University of Natural Resources, Austria</i>	[O38.03] Peptide-fouling on anion-exchange membranes : effect of pH and peptide physicochemical characteristics M. Persico* ¹ , L. Bazinet ¹ , A. Doyen ¹ , L. Firdaous ² , ¹ <i>Université Laval, Canada</i> , ² <i>Université Lille Nord de France, France</i>	[O39.03] Design of nanostructures obtained from assembling of α-lactalbumin and lysozyme for encapsulation and delivery of Vitamin B₂ A.A. Monteiro ^{1,3} , M.R. Monteiro ^{2,3} , O.L. Ramos ^{3,4} , R.N. Pereira ³ , F.X. Malcata ⁴ , J.A. Teixeira ³ , A.V. Teixeira ¹ , E.B. Oliveira ¹ , J.S. Coimbra* ^{1,5} , A.A. Vicente ³ , ¹ <i>Universidade Federal de Viçosa, Brazil</i> , ² <i>Universidade Federal de Minas Gerais, Brazil</i> , ³ <i>University of Minho, Portugal</i> , ⁴ <i>University of Porto, Portugal</i> , ⁵ <i>Universidade Federal do Pará, Brazil</i>	[O40.03] Spray pasteurisation of food packages: heating dynamics and process efficiency S. Hansriwijit, E. Lopez-Quiroga*, S. Bakalis, P.J. Fryer, <i>University of Birmingham, UK</i>
09:45-10:00	[O37.02] Technological solutions for reducing impact and content of health sensitive nutrients in food S. Palzer, <i>Nestec Ltd, Switzerland</i>	[O38.04] High concentration of milk and whey with reduced energy demand by means of membrane cascades P. Meyer, U. Kulozik*, <i>Technische Universität München, Germany</i>	[O39.04] Insights on the encapsulation of bioactives and antimicrobial compounds using micro/nanotechnologies M.A. Neves* ^{1,2} , P. Ung ¹ , Z. Wang ¹ , K. Uemura ² , I. Kobayashi ² , M. Nakajima ^{1,2} , ¹ <i>University of Tsukuba, Japan</i> , ² <i>National Food Research Institute, NARO, Japan</i>	[O40.04] Increase in energy efficiency of the chocolate cooling process based on a novel in-line monitoring approach L. Rejman*, P. Braun, E.J. Windhab, <i>Swiss Federal Institute of Technology (ETH), Switzerland</i>
10:00-10:15	[O37.03] Technological advances and processes for tomorrow's health foods Y. Pouliot*, A. Doyen, L. Bazinet, <i>Université Laval, Canada</i>	[O38.05] Production of monodisperse food-grade submicron emulsions by nanochannel emulsification I. Kobayashi* ¹ , Y. Hori ¹ , M.A. Neves ^{2,1} , K. Uemura ¹ , M. Nakajima ^{2,1} , ¹ <i>National Food Research Institute, NARO, Japan</i> , ² <i>University of Tsukuba, Japan</i>	[O39.05] Molecular encapsulation of linoleic and linolenic acids by amylose using hydrothermal and high-pressure treatments P. Le-Bail* ¹ , B. Houinsou-Houssou ¹ , M. Kosta ^{1,2} , B. Pontoire ¹ , E. Gore ¹ , A. Le-Bail ^{2,3} , ¹ <i>INRA, France</i> , ² <i>ONIRIS, France</i> , ³ <i>CNRS, France</i>	[O40.05] Sustainability analysis in canned mushroom production with the pinch and the exergy analysis E. Paudel*, R.M. Boom, R.G.M. van der Sman, <i>Wageningen University, The Netherlands</i>
10:15-10:30	[O37.04] Future of food engineering trends!	[O38.06] Preparation of liposomes loaded with		[O40.06] A comparison of two different methods to

	L. Audet*, P. Eng, <i>Luc Audet Ingénieur-Conseil, Canada</i>	lutein using supercritical carbon dioxide technology L. Zhao*, F. Temelli, <i>University of Alberta, Canada</i>		prepare potatoes to be served in cafeterias: environmental and quality aspects K. Sjölin* ¹ , M. Sjölin ² , I. Sjöholm ¹ , M. Rayner ¹ , ¹ Lund University, Sweden, ² Hydrotech, Veolia Water Technologies, Sweden
10:30-11:00	Refreshment break / Exhibition			
Room	200AB			
11:00-11:30	Young Food Engineer Award - Presented by Elsevier - Award winner will be introduced by Elsevier - Oral presentation of the Winner of the Young Food Engineer Award			
Room	200C			
11:30-12:45	Closing ceremony - Oral and Poster awards - ICEF12 – Seligman APV Travel Grant winners - Final statistics of Congress – Dr. Michele Marcotte - Summary and highlights of the Congress – Prof. Gilles Trystram - Contribution of deceased Prof. Ron Jowitt - One of the founding members of IAEF/ICEF (K.Niranjan) - Selection of host country of ICEF13 - Gavel ceremony - Closing address			