

# Monday 23 September 2019

0730-1730	Registration   Foyer, Level 1					
0730-1915	Exhibition   Foyer, Level 1					
0830-0915	Opening Ceremony					
Room	Meeting Room 105 & 106, Level 1					
Chair	Roman Buckow					
0830-0845	Welcome to Country					
0845-0900	Welcome to ICEF13 <b>Roman Buckow</b>					
0900-0910	Opening speaker <b>The Hon. Jane Garrett</b>					
0915-1025	Plenary Session					
Room	Meeting Room 105 & 106, Level 1					
Chair	Ulrich Kulozik Victoria Jideani					
0915-0950	<b>Keynote Presentation</b> Riding the wave of new food trends: how to do research to the point? <b>Christoph Hartmann</b>					
0950-1025	<b>Keynote Presentation</b> Food engineering for digestion tracts <b>Xiao Dong Chen</b>					
1025-1100	Morning Tea   Foyer, Level 1					
1100-1230	Concurrent Sessions					
	<b>Concurrent 1A</b>	<b>Concurrent 1B</b>	<b>Concurrent 1C</b>	<b>Concurrent 1D</b>	<b>Concurrent 1E</b>	<b>Concurrent 1F</b>
<b>Session</b>	<b>Advances in nonthermal food processing in China</b>	<b>Beyond the farm gate: the role of the food engineer in addressing food security and humanitarian situations</b>	<b>Phase or state change and water dynamics in foods</b>	<b>Integrated sustainability assessment of global food systems and processing</b>	<b>Engineering solutions to control food digestion</b>	<b>Short oral 1 Advances in food process engineering</b>
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Baocai Xu Xin-An Zeng	Dominique Bounie Silvia Estrada-Flores	Nasser Al-Habsi Mohammad Shafiur Rahman	Alexander Mathys Liz Specht	Paul Singh Ruud van der Sman	George Chen
1100-1120	The application of pulsed electric field (PEF) technology for food processing in China <b>Xin-An Zeng</b>	Sustainable food security for all: opportunities to enhance nutrition and decrease food waste in resource-limiting settings <b>Robyn Alders</b>	Food materials science importance in food process and product engineering <b>Yrjö Roos</b>	Holistic sustainability assessment of global food systems – challenges, needs and available tools <b>Alexander Mathys</b>	An application to understanding food digestion: Degradation mechanisms of phytometabolites of antibiotics <b>Gail Bornhorst</b>	Refer to short oral program
1120-1140	Enhancing the activity of superoxide dismutase by high pressure processing <b>Xiaojun Liao</b>	System engineering approach to design solutions for humanitarian food security situations <b>Dominique Bounie</b>	Applications of state diagram in food engineering: past, present and future <b>Mohammad Shafiur Rahman</b>	The future of meat: sustainably meeting future demand with plant-based and cell-based meat <b>Liz Specht</b>	Role of oral processing in in vitro digestion: a case study of bread <b>Jing Gao</b>	
1140-1200	The mechanism and application of ultrasound in food preservation and sterilization <b>Donghong Liu</b>	Towards a more food secure world – the role of postharvest technologists and engineers <b>Suzie Newman</b>	Impact of amorphous sugars ratio and fiber addition in crystallization, in model food systems as affected by different water activities <b>Vaios Karathanos</b>	Food supply chains as cyber-physical systems: engineering a path for more sustainable personalised nutrition <b>Sergiy Smetana</b>	Digestibility of milk proteins in elderly <b>Kataneh Aalaei</b>	
1200-1215	Presence of sodium chloride and high hydrostatic pressure improve the stability of chlorophyll <b>Yan Zhang</b>	Food security, income generation, through enterprise skills development for village level food processing <b>Alastair Hicks</b>	Thermal characteristics and proton mobility of date-pits and hemicellulose extracted from date-pits <b>Nasser Al-Habsi</b>	Pathways to reducing water-scarcity impacts from Australian food consumption <b>Brad Ridoutt</b>	Engineering common beans for the generation of microstructures with specific in vitro nutritional functionality: a kinetic approach <b>Andrea Katherine Pallares Pallares</b>	
1215-1230	Synergistic effect of high pressure processing and two spice extracts on quality and shelf life of low-salt sausage during storage <b>Peijun Li</b>	<b>Roundtable discussion</b>	In situ characterization of crystal growth process in raisin: 3D image-based using micro-CT <b>Maria Moreno</b>	Quality-based life cycle assessment of protein dietary sources <b>Jen-Yi Huang</b>	Unlocking the functionality of sugar and its replacers for structuring of bakery products <b>Ruud van der Sman</b>	
1230-1345	Lunch   Foyer, Level 1					

1345-1515 Concurrent Sessions						
	Concurrent 2A	Concurrent 2B	Concurrent 2C	Concurrent 2D	Concurrent 2E	Concurrent 2F
Session	Engineering food digestion: from understanding to consumer-oriented applications	Novel drying approaches and optimisation	Beyond 2020: the importance of refrigeration in the future food supply chains	Microwave processing of foods under batch and continuous flow conditions	Rheological, textural and structural properties of foods	Short oral 2 Engineering properties of food and packaging
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Uri Lesmes Harjinder Singh	Sakamon Devahastin Alain Le-Bail	Don Cleland Silvia Estrada-Flores	KP Sandeep Juming Tang	Guy Della Valle Sylvie Chevallier	Antonio Derossi
1345-1405	The effect of processing on the kinetics of digestion <b>Alan Mackie</b>	BRICE project: solutions to monitor and to mitigate checking and breakage of dry cereal products <b>Alain Le-Bail</b>	Sustainability of refrigerated facilities <b>Don Cleland</b>	Commercialization of continuous flow microwave processing of foods <b>KP Sandeep</b>	Artificial oral processing of extruded pea flour snacks <b>Guy Della Valle</b>	Refer to short oral program
1405-1425	Comparative performance of proteins and emulsion in adults and the elderly <b>Uri Lesmes</b>	Product design in drying processes based on structure visualisation by $\mu$ -CT <b>Volker Gaukel</b>	Refrigerated seafreight of food products <b>David J Tanner</b>	Control viral and bacterial pathogens in ready-to-eat meals using microwave assisted pasteurization systems <b>Juming Tang</b>	Development of a marking methodology for X-Ray $\mu$ CT to describe the microstructure of cereal products <b>Sylvie Chevallier</b>	
1425-1445	Role of food structures in lipid digestibility and absorption <b>Harjinder Singh</b>	Ultrasound assisted low temperature drying of food materials <b>Henry Sabarez</b>	Technologies for dynamic controlled atmosphere of fruit and vegetables <b>Bart Nicolai</b>	Mathematical modeling of microwave thawing: cavity geometry effect and design for scale-up of an industrial process <b>Torstein Skåra</b>	Investigating the microstructure of frozen foods using X-ray microtomography: a comparative study <b>Fatou-Toutie Ndoye</b>	
1145-1500	Turning phytates into a natural iron delivery system <b>Edwin Habeych</b>	Making spray drying cool: a novel approach to low temperature electrostatic spray drying of probiotic microorganisms <b>Bogdan Zisu</b>	Safety and quality degradation of foods stored in residential refrigerators <b>Antonio Torres</b>	Combined prototype with ultrasounds, microwave, and spiral heat exchange in an industrial olive oil extraction plant: impact on olive oil quality and yield <b>Pablo Juliano</b>	Microstructural characterization of vacuum-fried matrices and its influence on the starch bioaccessibility <b>Ingrid Contardo</b>	
1500-1515	Formulation and processing factors affecting bioaccessibility of polyphenols <b>Avi Shpigelman</b>	Prediction of drying rate of nectarines ( <i>Prunus persica</i> var. <i>nucipersica</i> ) from real-time ambient weather factors during direct sun drying <b>Rebecca Milczarek</b>		Coupled transport and CFD modelling framework for intermittent microwave convective drying of plant based food <b>Azharul Karim</b>	Transient localized changes in fresh-cut papaya microstructure as determined by environmental scanning electron microscopy (ESEM), confocal laser scanning <b>Gabriela Caez</b>	
1515-1545 Afternoon Tea   Foyer, Level 1						
1545-1715 Concurrent Sessions						
	Concurrent 3A	Concurrent 3B	Concurrent 3C	Concurrent 3D		
Session	Insights into the scope of food engineering education	Innovative technologies for product modification and process intensification	New tools and models to enhance food processing and quality	New technologies for sustainable food and ingredient manufacture		
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1		
Chair	Barry McGookin Keshavan Niranjan	Ferruh Erdogan Anet Režek Jambrak	Kasiviswanathan Muthukumarappan John Tobin	Torstein Skåra Paulo Sobral		
1545-1605	Strengthening food engineering education with courses on novel and emerging topics <b>Paul Singh</b>	Low pressure and moderate to high temperature are required for meat tenderization using high pressure processing <b>Robyn Warner</b>	The application of ecoefficient electrotechnologies for the production of biologically active peptides <b>Sergey Mikhaylin</b>	Supercooling technology for extended shelf life of perishable foods <b>Soojin Jun</b>		
1605-1625	Re-engineering bachelor's degree curriculum in food engineering: hypothesis and proposal <b>Keshavan Niranjan</b>	High voltage electrical discharges in extractions of bioactives from Oregano leaves ( <i>Origanum vulgare</i> L.): process control and impact on antioxidative properties of extract <b>Anet Režek Jambrak</b>	A nutriketic model linking broccoli processing conditions to ITC bioavailability <b>Matthijs Dekker</b>	Prediction of liquid loss from frozen and thawed cod by hyperspectral imaging <b>Torstein Skåra</b>		
1625-1645	Simulation-based enhancement of education: food safety for engineers <b>Ashim Datta</b>	Factors influencing calcium infusion using high pressure processing <b>Noopur Gosavi</b>	Applications of hydrodynamic cavitation for instant rehydration of high protein milk powders <b>John Tobin</b>	Novel Application Potentials of CO <sub>2</sub> Gas Hydrate Technology for the Commercial Juices Concentrating Process <b>Soebialto Loekman</b>		
1645-1700	Food and agribusiness engineers – how to play in 2030 <b>Barry McGookin</b>	The use of pulsed electric fields technology for carrot texture modification on human oral processing and in vivo bioaccessibility of $\beta$ -carotene <b>SzeYing Leong</b>	Prediction of millet extrudates properties using response surface modelling and artificial neural networks <b>Kasiviswanathan Muthukumarappan</b>	The importance of processing of microalgae in the design of healthy food products with desired rheological properties <b>Tom Bernaerts</b>		
1700-1715	A call for developing a collaborative education and training platform dedicated to humanitarian food engineering <b>Dominique Bounie</b>	Photopolymerization by UV and blue light in salmon gelatin with different molecular weight <b>Javier Enrione</b>	Identification of mechanisms of multistage structure-formation in processed cheese model products <b>Ulrich Kulozik</b>	Printed, flexible pH sensors for wet environments in food application <b>Fariba Dehghani</b>		
1715-1915 Welcome Reception   Exhibition, Foyer, Level 1						

## Tuesday 24 September 2019

0730-1730	Registration   Foyer, Level 1					
0830-1700	Exhibition   Foyer, Level 1					
0745-0845	Breakfast Session					
Sponsor	Journal of Food Engineering by Elsevier					
Room	Meeting Room 103, Level 1					
0745-0800	Introduction <b>Paul Singh</b>					
0800-0845	Food safety from farm to gut: opportunities and challenges <b>Nitin Nitin</b>					
0900-1015	Plenary Session					
Room	Meeting Room 105 & 106, Level 1					
Chair	Gilles Maller Donghong Liu					
0900-0905	Welcome and housekeeping announcements <b>Janet Paterson</b>					
0905-0940	Keynote Presentation Paving the way to market for proteins from alternative sources <b>Lana Zivanovic</b>					
0940-1015	Keynote Presentation Microtechnology used as a tool for rapid development of new and sustainable food products <b>Karin Schroen</b>					
1015-1050	Morning Tea   Foyer, Level 1					
1050-1220	Concurrent Sessions					
	Concurrent 4A	Concurrent 4B	Concurrent 4C	Concurrent 4D	Concurrent 4E	Concurrent 4F
Session	Advances in freezing technologies	Food industry 4.0 – current and future state	Food process modeling: across the scales, food-health linkages and enablers	Cold plasma functionalised liquids for food and agriculture	Innovation in food processing and value addition in Australasia	Short oral 3 Food engineering for nutrition and health
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Alain Le-Bail Osato Miyawaki	Filip Janakievski Leonie Wong	John Bronlund Ashim Datta	Paula Bourke Patrick Cullen	Mohammed Farid Sandra Kentish	Zamantha Escobedo-Avellaneda
1050-1110	Crystallization assisted by electric, magnetic, electromagnetic, MicroWaves and Radio Frequencies; a review <b>Alain Le-Bail</b>	Beyond blockchain – an overview of useful digital technologies for the food industry <b>Serafim Bakalis</b>	Coupling poromechanics, transport and kinetics as modeling framework for process, quality and safety <b>Ashim Datta</b>	Plasma functionalized water: from bench to prototype for fresh food safety <b>Uta Schnabel</b>	A novel ice encapsulated storage system-field trial on farm for cooling of milk <b>Mohammed Farid</b>	Refer to short oral program
1110-1130	Progressive freeze-concentration and its application to new food products <b>Osato Miyawaki</b>	Industry 4.0 and digitalization in food and beverage <b>Leonie Wong</b>	Large scale modeling of food systems: from molecules to food quality and safety <b>Olivier Vitrac</b>	Technology advantages and challenges of plasma activated liquids in a circular bio-economy <b>Ximena Yopez</b>	Creamed pomace – a new process for a new product from an old waste <b>Richard Archer</b>	
1130-1150	The effect of Cells Alive System (CAS) <b>Norio Owada</b>	Asahi 4.0 <b>Anna Reid</b>	Application of constrained optimization techniques in optimal shape design of a freezer to dosing lines splitter for ice-cream production <b>Fabrizio Sarghini</b>	PlaSmarter – Cold Plasma functionalised liquid platform for food and agriculture interventions <b>Paula Bourke</b>	Novel approaches to dairy processing <b>Sandra Kentish</b>	
1150-1205	Pasteurization effects of food model during vacuum freeze drying combined with high frequency dielectric heating <b>Atsushi Hashimoto</b>	Future of agrifood industry and technologies that will disrupt it <b>Ingrid Appelqvist</b>	Modelling as a tool to link food structure to sensory experience and digestion <b>John Bronlund</b>	Ecotoxicological and Life Cycle considerations of cold plasma as an advanced oxidation process for contaminated wastewaters <b>Dana Ziuzina</b>	From small computers to big data, food process analytical control and beyond <b>Brent R. Young</b>	
1205-1220	Comparative study of supercooling freezing with conventional freezing on the pork meat with various storage periods <b>Rajib Poudyal</b>	Development and validation at industry scale of a fluorescence and infrared backscatter fluorescence PAT tool to monitor rennet induced coagulation kinetics of milk <b>Colm O'Donnell</b>	Gas transfer modelling in foods with a heterogeneous porous microstructure <b>Bart Nicolai</b>	Inactivation of Listeria monocytogenes and Salmonella Typhimurium planktonic cells and biofilms using plasma activated liquid (PAL) <b>Jan Van Impe</b>	Heating uniformity as a function of tray position in a MATS microwave food processing system <b>Ross Coad</b>	
1220-1335	Lunch   Level 1, Foyer					

1335-1505 Concurrent Sessions						
	Concurrent 5A	Concurrent 5B	Concurrent 5C	Concurrent 5D	Concurrent 5E	Concurrent 5F
Session	Next gen 3D printing of foods	Food packaging and biodegradable packaging materials	Resource recovery for nutritional food engineering and health	Advances in membrane filtration systems for food applications	Next generation sustainable food processing	Short oral 4 Food process systems engineering and modelling
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Bhesh Bhandari Claire Gaiani	Benu Adhikari Yoshio Makino	Fariba Dehghani Mark Morrison	Lilia Ahrné Martin Hartinger	Sergiy Smetana Vanessa Jury	Serafim Bakalis
1335-1355	Current situation, challenge and prospect of 3D food printing in China <b>Min Zhang</b>	Starch-polyurethane flexible packaging films: synthesis, compostability and application <b>Benu Adhikari</b>	Microbial engineering of carotenoids synthesis from waste substrates <b>Jaslyn Lee</b>	Concentration of whey using cheese salt brine in direct forward osmosis using aquaporin-based hollow fiber membranes <b>Emilie Nyborg Nielsen</b>	Heterotrophic microalgae as a sustainable source of highly technofunctional proteins <b>Lutz Grossman</b>	Refer to short oral program
1355-1415	Structuring meat through 3D Printing <b>Sangeeta Prakash</b>	Novel Decontamination Technologies for Textiles (uniforms, parachutes), fresh produce, packaging <b>Chris Doona</b>	Effects of technological treatments on dietary fiber structure, digestion of plant proteins and bioaccessibility of amino acids: cooking extrusion of brewer's spent grains <b>Emilie Korbel</b>	Quantification of osmotic pressure of whey under Forward Osmosis for whey concentration <b>Anna Artemi</b>	Renewable heating above 100C for use in food processing <b>Don Cleland</b>	
1415-1435	Post-processing feasibility of dual-nozzle-extruded 3D printed beef products <b>Arianna Dick</b>	Analysis of dynamic changes in metabolites in green soybeans (Glycine max (L.) Merr.) under modified atmospheres by statistical methods <b>Yoshio Makino</b>	Processing strategies for enhancing the bioactive profile of Brassica vegetables <b>Netsanet Shiferaw Terefe</b>	Concentration of coconut water using aquaporin-based hollow fiber and tubular forward osmosis membrane <b>Xuan Tung Nguyen</b>	Impact of thermal processing on the microbial diversity of cricket flour <b>Antje Fröhling</b>	
1435-1450	Design and production of 3D printed food with desired textural properties <b>Antonio Derossi</b>	Disintegrability under composting conditions of biopolymers-based films containing Boldo-of Chile extract <b>Paulo Sobral</b>	Processing techniques for donated human milk optimized for minimal damage to milk proteins <b>Katherine Blackshaw</b>	Influence of spatial dependency on filtration performance of spiral-wound membranes <b>Martin Hartinger</b>	Sustainable performance of nitrites reduction scenarios in ham production <b>Vanessa Jury</b>	
1450-1505	Innovative, economical 3D printed reactor designs for the cultivation of photoautotrophic microorganisms <b>Alexander Jahn</b>	Sprayable biodegradable polymer membrane for agriculture systems <b>Raju Adhikari</b>	Food for thought about the gut microbiome <b>Mark Morrison</b>	Forward osmosis for dairy processing – a pilot scale study on milk and whey concentration <b>George Chen</b>	Sustainable use of Hermetia illucens insect biomass for feed and food: extensive Life Cycle Assessment <b>Sergiy Smetana</b>	
1505-1535 Afternoon Tea   Foyer, Level 1						
1535-1705 Concurrent Sessions						
	Concurrent 6A	Concurrent 6B	Concurrent 6C	Concurrent 6D	Concurrent 6E	Concurrent 6F
Session	A new aspect of food rheology: expansion from processing and eating stage to postprandial digestion	Microencapsulation and glass transition of foods	Food supply chain engineering, sustainability, and world hunger	New opportunities of extrusion processing for functional foods and ingredients	Food engineering education: from undergraduate learning to doctoral research training	Short oral 5 Novel food processing technologies
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Yukiharu Ogawa Jaspreet Singh	Bhesh Bhandari Claire Gaiani	Dennis Heldman Jose Reyes	Dennis Forte Danyang Ying	Jan Van Impe Janet Paterson	Cristina Silva
1535-1555	A new aspect of food rheology on postprandial digestion <b>Yukiharu Ogawa</b>	A continuous alginate microencapsulation technique- an innovative technology <b>Bhesh Bhandari</b>	Sustainability of the food supply system; energy, water and waste <b>Dennis Heldman</b>	Extrusion: a tool for food innovation <b>Gilles Maller</b>	FOOD4S - towards a european master of science in sustainable food systems engineering <b>Monika Polanska</b>	Refer to short oral program
1555-1615	Foam performance measurement for beer based on the Helmholtz resonance phenomenon <b>Takahisa Nishizu</b>	Spray-drying as an encapsulation process to protect lactic acid bacteria in enzyme pre-treated dairy protein matrix <b>Claire Gaiani</b>	Food logistics and supply chain <b>Rodolfo Garcia-Flores</b>	Modulation of protein aggregation by extrusion mechanical energy <b>Bo Zhang</b>	Food process models for training purpose through knowledge engineering methods (MESTRAL) <b>Guy Della Valle</b>	
1615-1635	Cooking methods altered the nutrition and digestibility of potato <b>Jinhu Tian</b>	Development of controlled delivery functional systems by microencapsulation of plants extracts with health benefits and food technological interest <b>Berta Estevinho</b>	Production and inventory optimization problems in food industry <b>Regina Berretta</b>	Challenges in development of extruded functional foods for improved food and nutritional security <b>Danyang Ying</b>	A digital library to aid curriculum internationalisation in biosystems and food engineering <b>Enda Cummins</b>	
1635-1650	Change of protein digestibility, protein availability, amino acids and antioxidant potential among digested fractions of raw, cooked and fermented soybeans <b>Sunantha Ketnawa</b>	Extrusion based Food Layered Manufacturing of casein-whey protein mixtures differing in pH, protein content and denaturation parameters <b>Kilian Daffner</b>	Food excess and by-product processing 'ecosystem' model <b>Paulomi Burey</b>	The use of dimensional analysis – modeling the direct expansion process <b>Dennis Forte</b>	Development of a multidisciplinary post-graduate educational activity on quantitative tools for sustainable food and energy in the food chain (Q-Safe): from problem based learning to e-learning <b>Serafim Bakalis</b>	
1650-1705	Biomimetic plant foods: nature inspired food structures to control starch digestion <b>Jaspreet Singh</b>	Continuously distributed glass transition and caking of maca (Lepidium meyenii Walpers) powder <b>Alex Eduardo Alvino Granados</b>	The scale factor in food manufacture: a tool for the assessment of decentralised food production scenarios <b>Peter Fryer</b>	Influence of thermomechanical treatment on the reaction behavior and functionality of highly concentrated whey proteins <b>María Gabriela Quevedo Barahona</b>	"Glow to make your plants grow": connecting discovery and community engaged research to the Undergraduate curriculum <b>Paula Bourke</b>	

## Wednesday 25 September 2019

0800-1730	Registration   Foyer, Level 1					
0800-1700	Exhibition   Foyer, Level 1					
0830-1020	Plenary Session					
Room	Meeting Room 105 & 106, Level 1					
Chair	Nikolaos Stoforos Miriam Hubinger					
0830-0835	Welcome and housekeeping announcements <b>Pablo Juliano</b>					
0835-0910	<b>Keynote presentation</b> A new paradigm for computer aided design of food processes at multiple scales <b>Bart Nicolaï</b>					
0910-0945	<b>Keynote presentation</b> Food system development for the final frontier: challenges and integrative solutions <b>Grace Douglas</b>					
0945-1020	<b>Keynote presentation</b> Novel and future processing technologies for the food industry of the 21st century <b>Gustavo Barbosa-Cánovas</b>					
1020-1055	Morning Tea   Foyer, Level 1					
1055-1225	Concurrent Sessions					
	<b>Concurrent 7A</b>	<b>Concurrent 7B</b>	<b>Concurrent 7C</b>	<b>Concurrent 7D</b>	<b>Concurrent 7E</b>	<b>Concurrent 7F</b>
<b>Session</b>	<b>Global perspectives of food engineering: current status and vision</b>	<b>Engineering digestion: development and utility of dynamic digestion models</b>	<b>Advances in food sensors technologies</b>	<b>Pulsed electric field processing: new applications for the bio-based industry</b>	<b>Food structure engineering</b>	<b>Short oral 6 Novel food processing technologies</b>
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Yrjö Roos Sam Saguy	Gail Bornhorst Erich Windhab	Jose Reyes Michael Ngadi	Leandro Buchmann Indrawati Oey	Simon Lawton Edgar Chavez Montes	Antje Fröhling
1055-1115	Food engineering vision and strategy towards 2050 <b>Sam Saguy</b>	Controlling satiety by tailored interfaces under consideration of gastric mixing in emulsion-based food systems <b>Erich Windhab</b>	To wire or not to wire that is the question <b>Jose Reyes</b>	Pulsed electric field use in food industry - application examples and equipment design <b>Oleksii Parniakov</b>	Process, structure and property relationships in food powder agglomeration and performance <b>Edgar Chavez Montes</b>	Refer to short oral program
1115-1135	Global challenges and opportunities to inspire food engineers - millennials era to digital generations <b>Yrjö Roos</b>	Monitoring mixing during gastric digestion using the human gastric simulator (HGS) <b>Gail Bornhorst</b>	Predicting intramuscular fat quality in pork loin by hyperspectral imaging <b>Michael Ngadi</b>	Emerging pulsed electric field process development for the bio-based industry <b>Leandro Buchmann</b>	Drop break-up in rotor stator mixers <b>Fredrik Innings</b>	
1135-1155	Food industry in the digital era: virtual tools, smart systems and connectivity <b>Francisco Marra</b>	The use of oral processing models for food design <b>John Bronlund</b>	Predicting freshness quality and shelf-life of strawberries using visible and near-infrared spectroscopy technology <b>Fernando Mendoza</b>	Pulsed electric field systems and applications <b>Mike Kempkes</b>	Towards heuristics for food product design <b>Simon Lawton</b>	
1155-1210	Food engineering in China - highlights and concerns <b>Xiao Dong Chen</b>	In vitro investigation of the behavior of nanocellulose in human gastrointestinal tract and the influence on food digestion <b>Fanbin Kong</b>	ITEX/GC-MS: an analytical method to a better detection of sulfur compounds in food products <b>Emilie Descours</b>	Effects of electric fields on enzymes: molecular dynamics simulations and experimental approaches <b>Sudhir Sastry</b>	A new gelation technology and its application in improving the edible quality and health value of dried noodles <b>Ying Yang</b>	
1210-1225	New Zealand insights towards a new era of food engineers <b>Richard Archer</b>	Clean steam in food and beverage manufacturing <b>Cormac Hanly</b>	Potential of fluorescence-based process analytical technologies as quality assurance tools for the dairy industry <b>Eoin Murphy</b>	Pulsed electric fields (PEF) as a pre-treatment for sous vide processing to improve the quality of tough meat cuts <b>Indrawati Oey</b>	Food structure assessment for the optimization of dairy products and manufacturing processes <b>Sally Gras</b>	
1225-1340	Lunch   Level 1, Foyer					
1340-1510	Concurrent Sessions					

	Concurrent 8A	Concurrent 8B	Concurrent 8C	Concurrent 8D	Concurrent 8E	Concurrent 8F
<b>Session</b>	<b>Commercialisation case studies of foods and ingredients in Australasia</b>	<b>The new era for food engineering</b>	<b>Separation processes using green solvents</b>	<b>Innovative processes and approaches for enhanced food safety and product quality</b>	<b>Food process modeling: state-of-the-art</b>	<b>Short oral 7 Food engineering properties, nutrition and packaging</b>
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Filip Janakievski Christian Ruberg	Peter Fryer Yrjö Roos	José M. del Valle Antonio Torres	Netsanet Shiferaw Terefe Weibiao Zhou	Ashim Datta Francesco Marra	Avi Shpigelman
1340-1400	In pursuit of the world's best steak – advanced robotics and x-ray technology to transform an industry <b>Christian Ruberg</b>	Emerging food processing techniques to target more sustainable food systems <b>Alexander Mathys</b>	Pressurized fluid options to produce cannabis-containing products for the food industry <b>Jerry W. King</b>	Synergistic antimicrobial effects of ultrasound and natural compounds against foodborne pathogens <b>Rohan Tikekar</b>	Hybrid mixture theory based framework for modeling unsaturated transport in poroviscoelastic biopolymers <b>Pawan S. Takhar</b>	Refer to short oral program
1400-1420	A new process in instant coffee production <b>Paul Ahn</b>	Engineering protein digestibility: insights form in vitro digestion models and digestomics analyses <b>Uri Lesmes</b>	Sustainable extraction of bioactives: the mini-biorefinery concept applied to food industries <b>María Angela Meireles</b>	A comparison study on the effects of radio frequency electric fields (RFEF) and thermal treatments on orange juice processing <b>Ernest Tse</b>	From Hz to GHz: electro-assisted processes in food industry <b>Francesco Marra</b>	
1420-1440	Australian tales of the future of sustainable nutrient recycling <b>James Sackl</b>	Food structure engineering: the product design principles revisited <b>Azad Emin</b>	Assessing the impact on scale-up of "nonidealities" in supercritical CO2 extraction of solid food materials: mathematical simulation and experimental verification <b>José M. del Valle</b>	Scaling plasma technology for the food industry <b>Patrick Cullen</b>	High pressure thermal processing – modelling case studies <b>Kai Knoerzer</b>	
1440-1455	From innovative concept to commercialisation of high pressure processing – The Presha Fruit story <b>Alastair McLachlan</b>	New processes for new products? <b>Peter Fryer</b>	High value-added products obtained by processing with subcritical water and supercritical carbon dioxide <b>Marleny Saldaña</b>	Non-thermal preservation of wine using high pressure processing and pulsed electric fields <b>Sanelle van Wyk</b>	Modelling ultrasound processing based on acoustic cavitation <b>Francisco Trujillo</b>	
1455-1510	Processing a new crop for Australia; seaweed biomass as a challenge for food processing technologies <b>Pia Winberg</b>	Engineering products of the future <b>Christoph Hartmann</b>	Subcritical water extraction of bioactive compounds from kánuka (Kunzea ericoides) leaves <b>Sinemobong Essien</b>	Non-thermal processing of açai (Euterpe oleracea Mart) berry <b>Sueli Rodrigues</b>	Mechanistic 3D modelling of solid foods with varying shape and size using statistical shape analysis: roasting of whole chicken breast meat <b>Felix Rabeler</b>	
1510-1540	Afternoon Tea   Foyer, Level 1					
1540-1710	Concurrent Sessions					
	Concurrent 9A	Concurrent 9B	Concurrent 9C	Concurrent 9D	Concurrent 9E	Concurrent 9F
<b>Session</b>	<b>Alternative proteins and food supplements: processing and consumption challenges</b>	<b>Advances in food packaging</b>	<b>Encapsulation and powder technologies for healthy food ingredients</b>	<b>Radio frequency applications for innovative thermal food processing: from thawing to pasteurization – sterilization</b>	<b>Modeling quality, safety and sensory aspects</b>	<b>Short oral 8 Sustainability, security, and supply chains</b>
Room	Meeting Room 106, Level 1	Meeting Room 105, Level 1	Meeting Room 104, Level 1	Meeting Room 103, Level 1	Meeting Room 102, Level 1	Meeting Room 101, Level 1
Chair	Myriam Loeffler Brijesh Tiwari	Juming Tang Deniz Turan	Nitin Nitin Cordelia Selomulya	Ferruh Erdogdu Francesco Marra	Mukund Karwe Petros Taoukis	Rebecca Milczarek
1540-1600	Transformational strategies to address current and future protein deficit <b>Brijesh Tiwari</b>	High gas-barrier polymer packaging for advanced food processing technologies <b>Juming Tang</b>	Improving fat encapsulation in spray-dried dairy powders <b>Cordelia Selomulya</b>	Radio frequency for innovative thermal processing - mathematical modeling for process optimization and industrial scale-up <b>Ferruh Erdogdu</b>	Crack in rusks: modelling and simulation of stress and displacement fields <b>Jean-Yves Monteau</b>	Refer to short oral program
1600-1620	Influence of protein source on the functionality and the digestibility of infant formulas <b>Linda Le Roux</b>	Alternative testing method for water vapor permeability of packaging materials based on polar polymers: thermoplastic polyurethane <b>Deniz Turan</b>	Milk fat globules - a universal delivery systems for bioactives <b>Nitin Nitin</b>	Recent development of radio frequency treatments for pasteurizing agricultural products <b>Shaojin Wang</b>	Engineering coffee aroma: the steam stripping of roast and ground coffee for instant coffee manufacture <b>David Beverly</b>	
1620-1640	Multi-functional mixed plant cell wall fibers from natural food colors side streams <b>Kai Reineke</b>	Polydiacetylene film-based sensors as an indicator for food spoilage at low temperatures <b>Long Nguyen</b>	Tuning the intrinsic stress tolerance of probiotic cells for enhanced survival ratio in spray drying for production of active dry probiotics <b>Meng Wai Woo</b>	Recent advances in the radio-frequency tempering and thawing of frozen foods <b>Yvan Llave</b>	Impact of shelf life models kinetic parameter uncertainty on predictions and management of the frozen fruits and vegetables cold chain <b>Petros Taoukis</b>	
1640-1655	Mechanisms to functionalize or restructure alternative proteins for future application in meat-based products <b>Myriam Loeffler</b>	Migration kinetics of carvacrol from active cellulose acetate films to food simulant fluids <b>Bruno Carciofi</b>	Effect of various encapsulation methods on the stability of probiotic bacteria <b>Chinnaswamy Anandharamakrishnan</b>	Pasteurization of dehydrated food powders with radio frequency heating <b>Fanbin Kong</b>	Microbial inactivation by cold atmospheric pressure plasma: a numerical study <b>Mukund Karwe</b>	
1655-1710	Role of the protein composition and rheological properties on the structuring of soy-based meat analogues in extrusion processing <b>Patrick Wittek</b>	Application of the genetic algorithm for smart packaging optimisation <b>Gonzalo Martinez</b>	Continuous process using protein-carbohydrate matrices for structuring and encapsulation <b>Mackenzie Hansen</b>	Radiofrequency tempering of frozen blocks of cod <b>Svein Kristian Stormo</b>	Modelling of Ohmic heating and kinetics of texture change of solid food products <b>Aberham H Feyissa</b>	
1900-2300	Gala Dinner   Aerial, 17 Dukes Walk, South Wharf					

## Thursday 26 September 2019

0830-1330	Registration and Exhibition   Foyer, Level 1
0900-1015	Plenary Session
Room	Meeting Room 105 & 106, Level 1
Chair	Mitsutoshi Nakajima Tiago Oliveira
0900-0905	Welcome and housekeeping announcements <b>Minh Nguyen</b>
0905-0940	<b>Keynote Presentation</b> Resolving conflicting drivers in global food security through agri-food innovation <b>Silvia Estrada-Flores</b>
0940-1015	<b>Keynote Presentation</b> Going digital in food manufacturing - what does this mean? <b>Tristan Hunter</b>
1015-1050	Morning Tea   Foyer, Level 1
1050-1230	Closing Ceremony
Room	Meeting Room 105 & 106, Level 1
Chair	Kim Staples
1050-1105	ICEF13 Highlights <b>Peter Fryer</b>
1105-1120	IAEF Lifetime Achievement Awards <b>Roman Buckow</b>
1120-1140	<b>ICEF13 Awards</b>
	ICEF13 Best Oral Awards sponsored by The University of Queensland <b>Bhesh Bhandari</b>
	ICEF13 Best Poster Awards sponsored by RMIT University <b>Benu Adhikari</b>
1140-1200	Other Awards
	International Food Engineering Award presented by ASABE <b>Sudhir Sastry</b>
	Nestlé Young Scientist Award <b>Christoph Hartmann</b>
	SCI Seligman APV Award <b>Keshavan Niranjana</b>
	Young Food Engineer Award provided by Elsevier's Journal of Food Engineering <b>R. Paul Singh</b>
1200-1215	Announcement and Introduction of ICEF14 <b>Roman Buckow</b>
1215-1230	Closing Remarks and Farewell <b>Roman Buckow</b>
1230-1330	Lunch   Foyer, Level 1
1330-1700	Technical Tours