

	Expocenter A	Innovations in the Food Industry
	Expocenter B	ISEKI Session: Challenges and Perspectives in Bridging Academia, Government and Industry Towards Integrated Approach to the Food Chain
09h00 - 12h30	Expocenter C1	Publication Session: How to get your paper published
	Iguaçu I	Industry Leaders Summit: Addressing Industry's Role in Food Security, Top Challenges in a Global Economy
	Iguaçu II	International Partnership Initiatives for Food Quality, Safety and Security
	Iguaçu III-IV-V	Nanotechnology I: Structure Development, Processing and Packaging
	Expocenter A	Research on Food Packaging
14h30 - 18h00	Expocenter B	Research on Emerging Technologies
	Expocenter C	IFIC Symposium: Beyond Published Results. The Importance of Communicating Science
	Iguaçu I	15h00-18h30 Student Panel: Meet the Leaders of Today and Tomorrow: Tapping the Resources and Charting the Course
	Iguaçu II	ISOPOW Session: Water and Structure Management
	Iguaçu III-IV-V	Nanotechnology II: Improving Food Safety and Human Health
20h00 - 23h00		Opening Ceremony   Reception

## Monday | August 6, 2012

09h00-12h30	Opening Plenary Session
13h30-14h30	Poster Session
14h30 - 18h00	Expocenter A Diet, Nutrition and Health. Global Perspectives
	Expocenter B Achieving Global Food and Nutritional Security. Strategies for Food Science and Technology
	Expocenter C1 Advances in Food Analysis and Food Chemistry
	Expocenter C2-C3 ISFE Food Engineering Symposium: Challenges, Opportunities and Pathways to Success
	Iguaçu I Innovation – How do we take a good idea and make it a reality?
18h00 - 19h00	Iguaçu II Ensuring Food Safety in Developing and Developed Countries
	Iguaçu III-IV-V ALACCTA Session I: Traditional Products and Processes in Latin America
	Poster Session Nanotechnology III: Analytical Techniques and Safety Considerations

	Expocenter A	ISFE Symposium: New Processing Technologies. From Concept to Applications
	Expocenter B	Post-harvest Technologies. Strategies to Minimize Post-harvest Losses
	Expocenter C1	Advances in Sensory and Consumer Science
	Expocenter C2-C3	Focus on Educational Capacity Building. Are we Preparing Food Science and Technology Professionals Adequately for Present and Future Challenges?
09h00 - 12h30	Itamuri II	Research on Food Safety
	Iguaçu I	Are processed foods the villains of human health?
	Iguaçu II	Food Science and Technology's Role in Sustainable Development
	Iguaçu III-IV-V	ALACCTA Session II: Meat and Milk Products
		Nanotechnology IV: Stockholder Confidence
13h30-14h00		Poster Session
	Expocenter A	IUFoST- ICSU Symposium: Unraveling the Globesity Puzzle
	Expocenter B	International Perspectives on Food Safety and Regulations – a Need for Harmonized Regulations
	Expocenter C1	Research in Food and Nutrition
	Expocenter C2-C3	Modeling and Simulation of Basic and Integrated Processes (sponsored by GeFFoST)
14h30 - 18h00	Itamuri II	Optimization of Traditional Processing Technologies
	Iguaçu I	Interaction between Agriculture, Nutrition and Food Science/Technology: A necessity?
	Iguaçu II	Women in Food Science and Technology
	Iguaçu III-IV-V	ALACCTA Session III: Food Security and Safety
		Trends in Food Flavor and Texture
18h00 - 19h00		Poster Session

## Wednesday | August 8, 2012

09h00 - 12h30	Expocenter A	Nuts in a Global Setting (sponsored by the International Tree Nut and Dried Fruit Council)
	Expocenter B	Current and Emerging Issues in Assuring Microbiological Safety of Foods
	Expocenter C1	Research on Bioactive Compounds and Functional Foods
	Expocenter C2-c3	Symposium in honor of David Min: Food Component Reactions and their Impact on Food Quality and Human Health
	Itamuri II	Research on Food Security
	Iguaçu I	Symposium in honor of André Tosello: Food Science and Technology in Brazil (up to 13h55)
	Iguaçu II	ALACCTA IV: Health Benefits of Coffee and Cacao
	Iguaçu III-IV-V	Food Science and Technology in Canada
13h30-14h00		Poster Session
14h30 - 18h00	Expocenter A	ISNFF Symposium: Recent Developments in Functional Foods
	Expocenter B	Hot Topics in Food production and Food Technology
	Expocenter C1	Advances in Food Biochemistry and Biotechnology
	Expocenter C2-c3	Innovations and Trends in Food Packaging
	Itamuri II	Young Scientists' Session
	Iguaçu I	Advances in Food Engineering
	Iguaçu II	Advances in Food Microbiology
	Iguaçu III-IV-V	US PharmaCopeia Session: Harmonization of Standards in the Agro-food Sector: Challenges and Opportunities
18h00 - 19h00		Poster Session

Thursday | August 9, 2012

09h00-12h30	Closing Plenary Session
15h00-17h00	IUFoST General Assembly



Date	Topics
August 6, 2012	Food Analysis Food Biochemistry Food Biotechnology Food Chemistry
August 7, 2012	Food Microbiology Food Safety Sensory and Consumer Science Bioactive Compounds and Functional Foods Food and Nutrition
August 8, 2012	Food Security Nanotechnology Food Processing Food Engineering Food Packaging

## Scientific Program

Sunday | August 5, 2012

### ExpoCenter A

#### 09:00–12:30 **Innovations in the Food Industry**

**Chairs:** Denise Jardim, Food Technology Institute (ITAL), Brazil  
José Vladimir de Oliveira, Federal University of Santa Catarina, Brazil

09:00–09:30 *After all, are we prepared to feed 9 billion people?* - Adriana Camargo, DuPont Brazil, Nutrition & Health, Brazil

09:30–10:00 *SEBRAE in Food Agro-industries: Innovations and partners for new products* - Léa Maria Lagares, SEBRAE, Brazil

10:00–10:30 *National Network of Food Analysis / RENALI: Institutional cooperation and innovation strategy in the largest network of food testing in Brazil* - Irineu Scartezini Jr., National Network of Food Analysis - RENALI, Brazil

#### 10:30–11:00 **Coffee Break**

11:00–11:30 *Fat Replacers, the challenge of maintaining sensory characteristics without compromising health* – Ana Elisa Pontes, Cargill

11:30–12:00 *Innovative technology: automated analysis dietary fiber with the methodologies–Ankom Technology* - Christopher L. Kelley, Worldwide Marketing and Sales, Tecnoglobo Equipamentos para Laboratório

12:00–12:30 *Funding instruments of FINEP to technological innovation* - Maurício França, FINEP

#### 14:30–17:10 **Research on Food Packaging**

**Chairs:** Agnes de Paula Scheer, Federal University of Parana, Brazil  
Marisa Padula, Food Technology Institute, Brazil

14:30–14:50 *Edible packaging based on natural sources for food applications* - Miguel A. Cerqueira, António A. Vicente, University of Minho, Portugal

14:50–15:10 *Nanopore scale model for the transport of liquid water, water vapor and oxygen in polymeric films. Applications to food packaging* - Luis A. Segura, Jose E. Paz, University of Bío-Bío, Chile.

15:10–15:30 *The effect of package damage on tomato paste can internal corrosion* - Sílvia T. Dantas, Jozeti A. B. Gatti, Elisabete S. Saron, Paulo H. M. Kiyataka, Fiorella B. H. Dantas, Beatriz M. C. Soares, Institute of Food Technology, Brazil

15:30–15:50 *Film in vitro evaluation of antimicrobial whey protein isolate (WPI) against *Listeria monocytogenes** - Hugo A. Moreno, Lina López, Estefanía Orjuela, Deyci Rodríguez, Facultad de Ciencias, Departamento de Microbiología. Pontificia Universidad Javeriana, Colombia

#### 15:50–16:10 **Coffee Break**

16:10–16:30 *Application of mathematical modeling to estimate the specific migration of a light stabilizer* - Marisa Padula, Daniel F. de Oliveira, Institute of Food Technology, Brazil

16:30–16:50 *Preparation of starch nanoparticles loading with antioxidants* - Marcela Boroski<sup>1</sup>, Isabelli

Sayuri Kono<sup>2</sup>, Barbara Fornaciari<sup>2</sup>, Suzana Mali de Oliveira<sup>2</sup>, Fernando Olívio Galão<sup>2</sup>, Gizilene Maria de Carvalho<sup>2</sup>, <sup>1</sup>Federal University of Latin America Integration - UNILA, <sup>2</sup>State University of Londrina, Brazil

16:50–17:10 *Incorporation of laponite and effects on the properties of cellulose acetate films* - Maria C. Rocha<sup>1</sup>, Washington A. da Silva<sup>1</sup>, Vinícius F. Ribeiro<sup>1</sup>, Eber A. A. Medeiros<sup>2</sup>, Nilda de F. F. Soares<sup>2</sup>, <sup>1</sup>Federal University of São João del Rei, <sup>2</sup>Federal University of Viçosa, Brazil

## Expocenter B

09:00–12:30 **ISEKI Session: Challenges and Perspectives in Bridging Academia, Government and Industry towards Integrated Approach to the Food Chain**

**Chairs:** Paola Pittia, University of Teramo, Italy  
Cristina Silva, Catholic University of Portugal, Portugal

09:00–09:30 *Development of education/research/industry interfaces towards the innovation of the food chain* - Paola Pittia, University of Teramo, Italy

09:30–10:00 *Private public partnership for integrating the food chain: An academic perspective* - Dietrich Knorr, Technische Universität Berlin, Germany

10:00–10:30 *BRF-BrasilFoods Industry and the challenges in bridging academy, government and industry for the integrated approach to the food chain* - Frederico Ramazzini Braga, University of São Paulo, Brazil

### 10:30–11:00 Coffee Break

11:00–11:30 *Developing meaningful relationships between important role players to the benefit of all along the food chain* - L. E. Anelich<sup>1</sup> and J. F. R. Lues<sup>2</sup>, <sup>1</sup>Anelich Consulting, <sup>2</sup>Central University of Technology, South Africa

11:30–12:00 *Science without borders project: an approach to open the world for Brazilian students* - Cassiano D'Almeida, The National Council for Scientific and Technological Development (CNPq), Brazil

12:00–12:30 *Innovative tools and strategies for the implementation of food professional skills and expertise in a lifelong learning perspective* - Cristina Silva, Catholic University of Portugal, Portugal

### 14:30–17:50 Research on Emerging Technologies

**Chairs:** Flávio Luís Schmidt, University of Campinas, Brazil  
Yoon Kil Chang, University of Campinas, Brazil

14:30–14:50 *High pressure homogenization effects on milk fermented by *Lactobacillus acidophilus** - Miguel M. de Oliveira, Adriano G. da Cruz, José de Assis F. Faria, Marcelo Cristianini, University of Campinas, Brazil

14:50–15:10 *Concentration and purification of yacon (*Smallanthus sonchifolius*) root fructooligosaccharides using membrane technology* - Maria Julia Ledur Alles, Danielle Rodrigues da Silva, Isabel Cristina Tessaro, Caciato Pelayo Zapata Noreña, Federal University of Rio Grande do Sul, Brazil

15:10–15:30 *Degradation and isomerization of carotenoids of yellow mombin (*Spondias mombin* L.) induced by high pressure processing* - Josê Emilson M. Ferreira<sup>1</sup>, Julia H. Tiburski<sup>2</sup>, Amauri Rosenthal<sup>2</sup>, Delia B. Rodriguez-Amaya<sup>1</sup>, Ronoel L. O. Godoy<sup>2</sup>, <sup>1</sup>University of Campinas, <sup>2</sup>EMBRAPA Food Technology, Brazil

15:30–15:50 *Quality retention in strawberries dried by emerging dehydration methods* - Rodrigo Bórquez, Juan Pérez, Johannes de Bruijn, Pedro Melín, María E. González, University of Concepción, Chile

15:50–16:10 *Development of an efficient enzymatic production of L-citrulline by arginine deiminase from a novel strain of *Kurthia* sp NOV. SK23.003* - Ying Wang, Tao Zhang, Bo Jiang, Ming Miao, Wanmeng Mu. Jiangnan University, China

**16:10–16:30 Coffee Break**

- 16:30–16:50 *Effect of high pressure homogenization (HPH) on the rheological properties of tomato juice: Steady-state shear* - Pedro E. D. Augusto<sup>1</sup>, Albert Ibarz<sup>2</sup>, Marcelo Cristianini<sup>1</sup>, University of Campinas, Brazil, <sup>2</sup>University of Lleida, Spain
- 16:50–17:10 *Separation of soybean oil/n-butane and soybean oil/n-hexane miscellas using ceramic and hollow fiber membranes* - Marcus V. Tres<sup>1</sup>, Jéssica C. Racoski<sup>1</sup>, Marco Di Luccio<sup>2</sup>, J. Vladimir Oliveira<sup>2</sup>, <sup>1</sup>Regional Integrated University of Alto Uruguai and Missões, <sup>2</sup>Federal University of Santa Catarina, Brazil
- 17:10–17:30 *Influence of pressure on the extraction kinetics of Capsicum pepper oleoresin with supercritical CO<sub>2</sub>* - Ana C. Aguiar, Luiz P. S. Silva, Julian Martínez, University of Campinas, Brazil
- 17:30–17:50 *Application of membrane and microchannel emulsification* - H. Ribeiro<sup>1</sup>, J. J. M. Janssen<sup>1</sup>, I. Kobayashi<sup>2</sup>, M. A. Neves<sup>2,3</sup>, M. Nakajima<sup>2,3</sup>, <sup>1</sup>Unilever R&D Vlaardingen, The Netherlands, <sup>2</sup>National Food Research Institute, Japan. <sup>3</sup>University of Tsukuba, Japan

## Expocenter C1

**09:00–12:30 Publication Session: How to Get your Paper Published**

**Chairs:** Gustavo Barbosa-Canovas, Washington State University, USA  
Daryl Lund, IAFoST President

- 09:00–09:20 Gustavo Barbosa-Canovas, Chair-elect, IUFoST Scientific Committee
- 09:20–09:40 Daryl Lund, Editor-in-Chief, Journal of Food Science (2003-2012)
- 09:40–10:00 Ruth Oniang'o, Editor-in-Chief, African Journal of Food, Agriculture, Nutrition and Development
- 10:00–10:20 Carlos Ricardo Soccol, Editor-in-Chief, Brazilian Archives of Biology and Technology
- 10:20–10:50 Coffee Break**
- 10:50–11:10 Claire Sarantopoulos, Associate Editor, Brazilian Journal of Food Technology
- 11:10–11:30 Dietrich Knorr, Editor, Innovative Food Science and Emerging Food Technologies
- 11:30–11:50 Gunnar Sigge, South African Food Science and Technology
- 11:50–12:10 Bo Jiang, Executive Editorial Board Member, Journal of the Science of Food and Agriculture
- 12:10–12:30 Christopher Smith, Editor-in-Chief, International Journal of Food Science and Technology

**14:30–18:00 IFIC Symposium: Beyond Published Results: The Importance of Communicating Science**

**Chairs:** David B. Schmidt, International Food Information Council, USA  
Kimberly Reed, International Food Information Council, USA

- 14:30–15:00 *The importance of communicating science* - David B. Schmidt, International Food Information Council, USA
- 15:00–15:30 *How China is addressing local, regional and global challenges in food risk communication* - Junshi Chen, China National Centre for Food Safety Risk Assessment, China
- 15:30–16:00 *Building food safety and nutrition communicating networks in Argentina and South America* - Gabriela Levitus, Food Safety and Nutrition Information Council for the Argentine Nutrition Society, Argentina

**16:00–16:30 Coffee Break**

- 16:30–17:00 *U.S FDA's experience and resources in communicating regulatory science and related decisions to key stakeholders* - Marjorie Davidson, U.S Food and Drug Administration, USA
- 17:00–17:30 *What every food scientist should know about consumer attitudes and food choices* - Kimberly Reed, International Food Information Council, USA
- 17:30–8:00 *Communicating with scientific integrity while addressing research funding* - Eric Hentges, International Life Sciences Institute, USA



09:00–12:30 **Industry Leaders Summit: Addressing Industry’s Role in Food Security, Top Challenges in a Global Economy**

Today’s food industry is presented with unprecedented challenges. These include global climate change, increasing population, changing demographics, socio-economic upheaval, and increasing environmental awareness. We are privileged to have leading representatives from different industry sectors and geographical regions from around the world discuss how these and other challenges are being addressed in the context of food security.

**Chair:** Allan Paulson, AFM Canada, Inc., Canada

**Panelists:** Diána Bánáti, ILSI Europe Executive Director  
 Michael Knowles, Vice President, Coca-Cola  
 Randy Giroux, Vice President Food Safety, Quality and Regulatory Compliance, Agricultural Supply Chain Platform, Cargill  
 Lim Chee Kian, President, Oilquip - Singapore  
 Yang Dongyun, CEO, Baixiang Food Group

15:00–18:30 **Meet the Leaders of Today and Tomorrow: Tapping the Resources and Charting the Course:**

The focus of this special student session is on career development and leadership in the Food Science and Technology sector. Part One presents individuals representing outstanding careers across government, research, industry and academe sectors who will discuss their career paths and what makes a good employee. The Second part will involve individuals who have had or are currently in leadership positions at the national or international levels, in current research and in industry. The intent of this session is to assist students in defining their career goals and the steps to take to achieve these goals for a successful career in Food Science and Technology.

**Chairs:** Geoffrey Campbell-Platt, IUFoST President  
 Juliano Lemos Bicas, Chair, Congress Student Committee

**Part One:** Outstanding careers in Food Science and Technology  
 Aman Wirakartakusumah (Indonesia)  
 John Lupien (Italy/USA)  
 Jose Aguilera (Chile)  
 Michael Knowles (Belgium)

Q&A, Break Time

**Part Two:** Food Science and Technology Leadership  
 Pingfan Rao (China)  
 Delia Rodriguez-Amaya (Brazil)  
 Walter Spiess (Germany)  
 Roger Clemens (USA)  
 Karen Lapsley (Canada/USA)

Q&A

## Iguaçu II

09:00–12:30 **International Partnership Initiatives for Food Quality, Safety and Security**

**Chairs:** Pieter van Twisk, The Food Advisory Consumer Service, South Africa  
Gerald G. Moy, Scientific Adviser, Food Safety Consultants International, Switzerland

09:00–09:30 *Strengthening through research grants the capabilities of early career developing country scientists to address food quality, safety and security* - The International Foundation for Science - Nathalie Persson Andrianasitera, IFS, Sweden

09:30–10:00 *Food safety consequences arising from the Design and development of REAListic food Models with well characterized micro- and macro-structure and composition (DREAM)* - Peter Raspor<sup>1</sup>, Lidija Basa<sup>1</sup>, Monique A.V. Axelos<sup>2</sup>, <sup>1</sup>University of Ljubljana, Slovenia, <sup>2</sup>INRA, France

10:00–10:30 *Technology and nutrition opportunities for healthful foods from emerging crops in Botswana* - Jose Jackson Malete, University Botswana, Botswana

### 10:30–11:00 Coffee Break

11:00–11:30 *Religious slaughter of animals: International efforts to meet this need responsibly* - Joe M. Regenstein, Cornell University, USA

11:30–12:00 *Development of foods with higher nutritional quality and increased safety* - Yvan Larondelle, Louvain Catholic University, Belgium

12:00–12:30 *European Union research priorities and funded projects in the area of Food Science* - Jürgen Lucas<sup>1</sup>, Susanne Braun<sup>2</sup>, <sup>1</sup>European Commission, Directorate-General Research and Innovation, Belgium, <sup>2</sup>University of Hohenheim, Stuttgart, Germany

14:30–18:00 **ISOPOW Session: Water and Structure Management**

**Chairs:** Anne-Marie Hermansson, Chalmers University of Technology, Sweden  
Lilia Ahrné, The Swedish Institute for Food and Biotechnology, Sweden

14:30–15:00 *Water, structure and food appearance* - Maria del Pilar Buera, University of Buenos Aires, Argentina

15:00–15:30 *Water in food: equilibria versus dynamics* - P. Lillford<sup>1</sup>, D. Champion<sup>2</sup>, Y. Huang<sup>3</sup>, <sup>1</sup>University of Birmingham, UK, <sup>2</sup>Agrosup, Dijon, France, <sup>3</sup>Lumingenex, Jiangsu, China

15:30–16:00 *Structure design for diffusion and flow properties* - Anne Marie Hermansson, Chalmers University of Technology, Sweden

### 16:00–16:30 Coffee Break

16:30–17:00 *Water in food refrigeration* - Toru Suzuki, Tokyo University of Marine Science and Technology, Japan

17:00–17:30 *Integrating research training in particle and powder technology to deliver efficient products with high functionality* - Lilia Ahrné, The Swedish Institute for Food and Biotechnology, Sweden

17:30–18:00 *Water in emerging food processing technologies* - Dietrich Knorr, Technische Universität Berlin, Germany

## Iguaçu III-IV-V

09:00–12:30 **Nanotechnology I: Structure Development, Processing and Packaging**

**Chair:** Jochen Weiss, University of Hohenheim, Germany

- 09:00–09:30 *Antioxidant activity of SLN encapsulated  $\alpha$ -tocopherol* - Kathleen Oehlke, Diana Behsnilian, Esther Mayer-Miebach, Volker Gräf, Elke Walz, Ralf Greiner, Max Rubner Institute, Germany
- 09:30–10:00 *Where is “nano” in foods* - Jose Aguilera, Pontificia Universidad Catolica de Chile, Chile
- 10:00–10:30 *Nanoscale homogenization approaches for highly bioavailable products* - Mitsutoshi Nakajima<sup>1,2</sup>, Isao Kobayashi<sup>1</sup>, Marcos A. Neves<sup>1,2</sup>, <sup>1</sup>University of Tsukuba, <sup>2</sup>National Food Research Institute, Japan

**10:30–11:00 Coffee Break**

- 11:00–11:30 *Rational design and mediation of nanostructured nutraceutical delivery systems* - Shuqin Xian<sup>1,2</sup>, Chen Tang<sup>1</sup>, Xiaoming Zhang<sup>1</sup>, Fang Zhong<sup>1</sup>, Qingrong Huang<sup>2</sup>, <sup>1</sup>Jiangnan University, China, <sup>2</sup>Rutgers University, USA
- 11:30–12:00 *Novel bioactives delivery systems using micro-/nanodispersions* - Marcos Neves, Isao Kobayashi, Mitsutoshi Nakajima, University of Tsukuba, Japan
- 12:00–12:30 *Heat and high pressure induced structural changes: From molecules to protein and lipid nanoparticles* - Perla Relkin, Rizwan Shukat, AgroParisTech, France

**14:30–18:00 Nanotechnology II: Improving Food Safety and Human Health**

**Chair:** Rickey Yada, University of Guelph, Canada

- 14:30–15:00 *Nano- and microscalar delivery of food antimicrobials* - Jochen Weiss, University of Hohenheim, Germany
- 15:00–15:30 *Licorice protein nanoparticles: Heat-induced assembly, properties and biological functions* – Jianwu Zhou, Guanzhen Gao, Huigin Wang, Xiaoyan He, Shutao Liu, Lijing Ke, Pigfan Rao, Fuzhou University, China
- 15:30–16:00 *Nanoformulations for nutrient delivery* - Ralf Greiner, Kathleen Oehlke, Diana Behsnilian, Volker Gräf, Esther Mayer-Miebach, Elke Walz Max Rubner Institut, Germany
- 16:00–16:30 Coffee Break**
- 16:30–17:00 *Ephedrine alkaloids in aqueous herbal extract: Single molecules or complex* - Jianwu Zhou, Guanzhen Gao, Qiuping Chu, Lijing Ke, Pingfan Rao, Fuzhou University, China
- 17:00–17:30 *Biopolymer-based nano carriers in food systems* - Hyun Jin Park, Korea University, Korea
- 17:30–18:00 *Preparation and characterization of cellulose acetate butyrate/organoclay nanocomposite with antimicrobial activity* - R. I. Quintero<sup>1,2</sup>, M. J. Galotto<sup>1</sup>, A. Guarda<sup>1</sup>, F. J. Rodríguez<sup>1</sup>, J. E. Bruna<sup>1</sup>, <sup>1</sup>Universidad de Santiago de Chile, Chile, <sup>2</sup>Universidad Tecnológica de Panama, Panama



**09:00–12:30 Opening Plenary Session**

**Chairs:** Glaucia Maria Pastore, ALACCTA President, 16<sup>th</sup> World Congress Chair  
Geoffrey Campbell-Platt, IUFOST President

- 09:00–09:10 *Opening remarks and Recognition of the IUFOST Governing Council* - Geoffrey Campbell-Platt, IUFOST President
- 09:10–09:40 *Aseptic bulk processing and packaging technology and the availability of nutritious foods worldwide* - Philip E. Nelson, 2007 World Food Prize Laureate
- 09:40–10:10 *The Brazilian food industry: Present and future perspectives* - Edmundo Klotz, President,

Brazilian Association of Food Industries (ABIA)

10:10–10:30 *ICSU's priorities for the future, including health and wellness* - Sergio Pastrana, ICSU Vice President for External Relations

**10:30–10:50 Coffee Break**

10:50–11:10 *Young Scientist Lecture: Mathematical modelling, numerical simulation and adaptive control of processes in food and biotechnology* - C. Rauh, Friedrich-Alexander University, Germany

11:10–11:40 *Recognition of fellows and induction of new fellows of the International Academy of Food Science and Technology* - Daryl Lund, IAFoST President

11:40–12:00 *New Members Recognition and Awards*, IUFOST

12:00–12:20 *Recognition of the Awards Committee and Announcement of the Global Food Industry Awards* - Judith Meech, IUFOST Secretary General

12:20–12:30 *Closing remarks, Recognition of the Congress Organizing Committee and ALACCTA Committee* - Glaucia Maria Pastore

## ExpoCenter A

14:30–18:00 **Diet, Nutrition and Health. Global Perspectives**

**Chairs:** Mary K. Schmidl, University of Minnesota, USA  
Mariusz K. Piskula, Polish Academy of Sciences, Poland

14:30–15:00 *Reduction of sodium in processed foods: The China perspective* - Bo Jiang, Jiangnan University, China

15:00–15:30 *Strategies to combat micronutrient deficiency in developing countries* - Marilia Regini Nutti, Brazilian Agricultural Research Corporation (EMBRAPA), Brazil

15:30–16:00 *The trans fat story needs to "go global"* - Mary K. Schmidl, University of Minnesota, USA

**16:00–16:30 Coffee Break**

16:30–17:00 *Our endless quest for the perfect diet: Do we have a direction to follow?* - Jaime Amaya-Farfan, University of Campinas, Brazil

17:00–17:30 *Africa: A continent requiring a multi-sectorial approach* - Esté Vorster, North-West University, South Africa

17:30–18:00 *Industry's role in providing health and wellness* - Hector Cori, DSM Nutritional Products, Chile

## ExpoCenter B

14:30–18:00 **Achieving Global Food and Nutritional Security. Strategies for Food Science and Technology**

**Chair:** Walter Spiess, University of Hohenheim, Germany

14:30–15:00 *The food security problem - an analysis of the current situation and strategies for a brighter future* - Walter Alberto Pengue, National University of General Sarmiento, Argentina

15:00–15:30 *The role of water (availability) to assure food security* - Benedito R. F. Braga, University of São Paulo, Brazil

15:30–16:00 *Empowering local communities to end their own hunger and poverty through an integrated approach to rural development* - Samuel K. Sefah-Dedeh, University of Ghana, Ghana

**16:00–16:30 Coffee Break**

16:30–17:00 *The role of Food Science for adaptable, affordable and acceptable, locally sustainable-resilient technologies* - Vishweshwaraiah Prakash, Distinguished Scientist, CSIR - India

- 17:00–17:30 *Role of the food industry in implementing solutions oriented initiatives to increase food security* - J.B.Cordaro and Adam Adams, Mars, USA
- 17:30–18:00 *Conservation of biodiversity for food and nutritional security* - Delia B. Rodriguez-Amaya, University of Campinas, Brazil

## Expocenter C1

### 14:30–17:50 **Advances in Food Analysis and Food Chemistry**

**Chairs:** Sara Esther Valdés Martínez, Universidad Autonoma de Mexico, Mexico  
 Maria Beatriz Abreu Gloria, Federal University of Minas Gerais, Brazil

- 14:30–14:50 Overview by the Chairs
- 14:50–15:10 *Development of a near infrared emission photometer for measuring oxidative stability of oils and fats* - Francisco Senna, Celio Pasquini, University of Campinas, Brazil
- 15:10–15:30 *Determination of total phenolic compound contents and antioxidant capacity in leaves of fruit species commonly consumed in Europe using near infrared spectroscopy and chemometric approach* - Darly R. Pompeu<sup>1</sup>, Aureliano A. D. Meirelles<sup>2</sup>, Isaías Ferreira dos Santos<sup>2</sup>, Pascal Dupont<sup>3</sup>, Audrey Pissard<sup>3</sup>, Marc Lateur<sup>3</sup>, Yvan Larondelle<sup>4</sup>, Hervé Rogez<sup>2</sup>, Vincent Baeten<sup>3</sup>, <sup>1</sup>University of the State of Pará, Brazil, <sup>2</sup>Federal University of Pará, Brazil. <sup>3</sup>Walloon Agricultural Research Centre, Belgium, <sup>4</sup>Université Catholique de Louvain, Belgium
- 15:30–15:50 *Rapid method for the determination of usual cis-trans fatty acids by capillary zone electrophoresis* - Patrícia Mendonça de Castro Barra<sup>1</sup>, Renata de Jesus Coelho Castro<sup>1</sup>, Sabria Aued-Pimentel, Simone Alves da Silva<sup>2</sup>, Marcone Augusto Leal de Oliveira<sup>1</sup>, <sup>1</sup>Federal University of Juiz de Fora, <sup>2</sup>Adolfo Lutz Institute, Brazil
- 15:50–16:10 *Rapid immunoassay for the detection of bovine adipose tissue* - Y-H. Peggy Hsieh<sup>1</sup>, Kamil Gajewski<sup>2</sup>, <sup>1</sup>Florida State University, USA, <sup>2</sup>Microtest Matrices Ltd., UK
- 16:10–16:30 Coffee Break**
- 16:30–16:50 *High hydrostatic pressure and state of rigor effects on the thermodynamics and structural properties of myofibrillar proteins from Trachurus murphyi* - Dominique Larrea<sup>1</sup>, Luis Moreno-Osorio<sup>1</sup>, Gipsy Tabilo-Munizaga<sup>1</sup>, Ricardo Villalobos<sup>1</sup>, Mario Pérez-Won<sup>2</sup>. <sup>1</sup>Universidad del Bío Bío, Chile, <sup>2</sup>Universidad de La Serena, Chile
- 16:50–17:10 *Effect of fructose and glucose on glycation of beta-lactoglobulin in intermediate moisture food model systems: Analysis by LC-MS and LC-MS/MS* - Yingjia Chen, Li Liang, Xiaoming Liu, Peng Zhou, Jiangnan University, China
- 17:10–17:30 *Functional and physicochemical characterization of yam starch for industrial application* - Bolanle Otegbayo, Bunmi Akinwumi, Dotun Ogunniyan, Bowen University, Nigeria
- 17:30–17:50 *Granular crystals formation in plastic fats - mechanisms and Inhibitions* - Zong Meng, Yuanfa Liu, Qingzhe Jin, Xingguo Wang, Jiangnan University, China

## Expocenter C2-C3

### 14:30–18:00 **ISFE Food Engineering Symposium: Challenges, Opportunities and Pathways to Success**

**Chairs:** Sudhir Sastry, The Ohio State University, USA  
 Sam Saguy, The Hebrew University of Jerusalem, Israel

- 14:30–15:00 *Pathway to success - avenues, opportunities and challenges to the future* - Sam Saguy, The

Hebrew University of Jerusalem, Israel

15:00–15:30 *CoFE12 outcomes and challenges* - Sudhir Sastry, The Ohio State University, USA

15:30–16:00 *Food Engineering seeking innovative approaches to address current and upcoming challenges* - Gustavo Barbosa-Canovas, Washington State University, USA

**16:00–16:30 Coffee Break**

16:30–17:00 *The new Food Engineer: The European view* - Paola Pittia, University of Teramo, Italy

17:00–17:30 *The role of the Food Engineer in the industry* - Marc Dreyer, Nestle Ltd., Switzerland

17:30–18:00 *Discussion: Food Engineering - The broad picture* - José Miguel Aquilera, Catholic University of Chile, Chile, and the Panel of Speakers

## Iguaçu I

14:30–16:00 **Innovation - How do we take a good idea and make it a reality?**

**Chair:** Marcelo Cristianini, University of Campinas, Brazil

**Panelists:** Brad McKay, Healthcare Food Services (HFS), Canada  
Nigel Sunley, Sunley Consulting, South Africa

**16:00–16:30 Coffee Break**

16:30–18:00 **Ensuring Food Safety in Developing and Developed Countries**

**Chair:** Frank Busta, University of Minnesota, USA

**Panelists:** Diána Bánáti, ILSI Europe, Belgium  
Gunnar Sigge, Stellenbosch University, South Africa  
Felix Guillermo Reyes Reyes, University of Campinas, Brazil

## Iguaçu II

14:30–18:00 **ALACCTA Session I: Traditional Products and Processes in Latin America**

**Chairs:** Carmela Velásquez-Carillo, Centro Nacional de Ciencia y Tecnología de Alimentos, CITA, Costa Rica  
Jesús Yañez, Instituto de Investigaciones para la Industria Alimenticia, Cuba

14:30–15:00 *Food macro, micro and nano structures and preservation by moisture control* - Gustavo Gutiérrez, Instituto Politécnico Nacional, Mexico

15:00–15:30 *Utilization of tropical fruits in obtaining functional ingredients* - Carmela Velásquez-Carillo, University of Costa Rica, Costa Rica

15:30–16:00 *Functional properties of Andean grains* - Walter F. Salas, Universidad Agraria La Molina, Peru

**16:00–16:30 Coffee Break**

16:30–17:00 *Yerba mate and functional components* - Miguel Eduardo Schmalko, National University of Misiones, Argentina

17:00–17:30 *Management systems certification in the production of distilled beverages from sugarcane* - M. C. Vasallo, S. Faillaci, I. Blanco, A. Reyes, M. Lorenzo, M. Vega, M. Vásquez, Cuban Research Institute of Derivatives of Sugarcane (ICIDCA), Cuba

17:30–18:00 *Beer production with nontraditional adjuncts grown in Latin America* - João Batista de Almeida e Silva, University of São Paulo, Brazil

14:30–18:00 **Nanotechnology III: Analytical Techniques and Safety Considerations**

**Chair:** Misutoshi Nakajima

14:30–15:00 *Approaches to produce nanostructured materials from renewable sources and their characterization* - Luiz H. C. Mattoso, Embrapa Instrumentação, Brazil

15:00–15:30 *International, regional and national activities and initiatives relevant to risk assessment and risk management of nanotechnologies in the food and agriculture sectors* - Masami Takeuchi, FAO, Italy

15:30–16:00 *Development and characterization of galactomannan acetate nanoparticles* - Miguel A. Cerqueira, Ana C. Pinheiro, António A. Vicente, University of Minho, Portugal

**16:00–16:30 Coffee Break**

16:30–17:00 *Morphological evaluations of alpha-tocopherol loaded nanocapsules* - Carolina M. Noronha, Sabrina M. de Carvalho, Renata C. Lino, Pedro Luiz M. Barreto, Federal University of Santa Catarina, Brasil.

17:00–17:30 *A novel detection sensor for prohibited colorants in food by Graphene/Silver Nanocomposite* - Yunfei Xie, Jiangnan University, China

17:30–18:00 *Nanotechnology applied to bioremediation - peptide nucleic acid fluorescent in situ hybridization (PNA-FISH) as a method for the detection of dehalococoides* - Daniel A. Leite<sup>1,2</sup>, Silvia J. Fontenete<sup>2</sup>, Anthony S. Danko<sup>2</sup>, Nuno F. Azevedo<sup>2</sup>, <sup>1</sup>University of Grande Dourados, Brasil, <sup>2</sup>University of Porto, Portugal

**13:30-14:30 Poster Session**

**Chairs:** Raimundo Wilane de Figueiredo, Federal University of Ceara, Brazil  
Mario Roberto Maróstica Jr., University of Campinas, Brazil

**Topics:** Food Analysis  
Food Biochemistry  
Food Biotechnology  
Food Chemistry

**18:00–19:00 Poster Session**

**Chairs:** Marcelo Alexandre Prado, University of Campinas, Brazil  
Helia Harumi Sato, University of Campinas, Brazil

**Topics:** Food Analysis  
Food Biochemistry  
Food Biotechnology  
Food Chemistry



Tuesday | August 7, 2012

Expocenter A

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09:00–12:30 **ISFE Symposium: New Processing Technologies. From Concept to Applications**

**Chairs:** José Miguel Aguilera, Pontificia Universidad Católica de Chile, Chile  
Maria Ângela de Almeida Meireles, University of Campinas, Brazil

09:00–09:30 *Emerging food technologies for targeted process-structure-function relationships* - Dietrich Knorr, Technische Universität Berlin, Germany

09:30–10:00 *Cost of manufacturing of bioactive compounds obtained by supercritical fluid extraction and pressurized liquid extraction: assisted or not by ultrasound* - Maria Ângela de Almeida Meireles, University of Campinas, Brazil

10:00–10:30 *Development of nano-biosensors for evaluation of food safety and establishing product traceability* - Kumar Mallikarjunan, Virginia Tech, USA

**10:30–11:00 Coffee Break**

11:00–11:30 *Innovations in meat processing* - Jochen Weiss, University of Hohenheim, Germany

11:30–12:00 *High pressure applied to tropical fruit juices and beverages: Nutritional, safety and consumer considerations* - Amauri Rosenthal, Agricultural Research Corporation (EMBRAPA), Brazil

12:00–12:30 *Challenges of innovation in the food Industry* - Colin Dennis, Institute of Food Science and Technology, UK

14:30–18:00 **IUFoST - ICSU Symposium: Unraveling the Globesity Puzzle**

**Chairs:** Ibrahim Elmadfa, University of Vienna, Austria  
Lucy Sun Hwang, National Taiwan University, Taiwan  
Sergio Pastrana, ICSU Vice President for External Affairs

14:30–15:00 *The global obesity epidemic: An overview* - Mary K. Schmidl, University of Minnesota, USA, International Union of Food Science and Technology

15:00–15:30 *Medical and health aspects of obesity* - Licio Augusto Velloso, University of Campinas, Brazil

15:30–16:00 *Energy balance and diet quality in the control of obesity* - Ibrahim Elmadfa, University of Vienna, Austria, International Union of Nutritional Sciences

**16:00–16:30 Coffee Break**

16:30–17:00 *Lipid metabolism, genes, and their regulation by natural compounds* - Angelo Azzi, Tufts University, USA, International Union of Biochemistry and Molecular Biology

17:00–17:30 *The epigenetic and physiological basis of an intergenerational cycle of obesity* - Caroline McMillen, University of Newcastle, Australia, International Union of Physiological Sciences

17:30–18:00 *Traditional food and obesity and the modern parameters and markers* - Vishweshwaraiah Prakash, Distinguished Scientist, CSIR - India, International Union of Nutritional Sciences

Expocenter B

09:00–12:30 **Post-harvest Technologies. Strategies to Minimize Post-harvest Losses**



**Chair:** Colin Dennis, Institute of Food Science and Technology, UK

09:00–09:30 *Preserving food after harvest is an integral component of food security post-harvest loss reduction* - Malcolm Bourne, Cornell University, USA

09:30–10:00 *Role of Food Science and Technology in post-harvest loss reduction* - Betty Bugusu, Purdue University, USA

10:00–10:30 *Strategies to minimise post-harvest losses - the Brazilian case* - Celso Moretti, EMBRAPA-Vegetables, Brazil

**10:30–11:00 Coffee Break**

11:00–11:30 *A post-harvest technology innovation triad approach to reduce food losses and waste for impact* - Linus Opara, University of Stellenbosch, South Africa

11:30–12:00 *Reducing post-harvest losses from harvest through export of Haitian mangos* - Steven Sargent, University of Florida, USA

12:00–12:30 *The contribution of post-harvest technology in solving world hunger* - Kenneth Marsh, Woodstock Institute for Science in Service to Humanity, USA

**14:30–18:00 International Perspectives on Food Safety and Regulations - A Need for Harmonized Regulations**

**Chairs:** Hans Steinhart, University of Hamburg, Germany  
Huub Lelieveld, GHI Association, The Netherlands

14:30–15:00 *Perspectives in Africa* - Lucia Anelich, Anelich Consulting, South Africa

15:00–15:30 *Perspectives in Europe* - Diána Bánáti, Central Food Research Institute, Hungary

15:30–16:00 *Perspectives in South America* - Maria Cecilia F. Toledo, University of Campinas, Brazil

**16:00–16:30 Coffee Break**

16:30–17:00 *Perspectives in the Middle East* - Atef Idriss, Middle East North Africa Food Safety Associates (MEFOSA), Lebanon

17:00–17:30 *Perspectives in China* - Xiumei Liu, Chinese Center for Disease Control and Prevention, China

17:30–18:00 *The need for harmonization* - Concluding remarks - Hans Steinhart, University of Hamburg, Germany - Huub Lelieveld, GHI Association, The Netherlands

## Expocenter C1

09:00–12:20 **Advances in Sensory and Consumer Science**

**Chairs:** Anne Goldman, ACCE International, Canada  
Maria Aparecida A.P. da Silva, Federal University of Sergipe, Brazil

09:00–09:20 *Advances in instrumental methods to evaluate sensory attributes* - Maria Aparecida A. P. da Silva, University of Sergipe, Brazil

09:20–09:40 *Advances in consumer science* - Anne Goldman, ACCE International, Canada

09:40–10:00 *Individuality in response behavior* - Herbert Stone, Sensory Management Consultant, USA

10:40–10:20 *Formation of aroma-active compounds and food-borne toxicants during deep-frying* - M. Granvogl, A. Ewert, S. Ahlig, P. Schieberle, German Research Center for Food Chemistry, Germany

10:20–10:40 *Sensory analysis of chicken products with a microbial fat substitute* - Caroline M. Calliari<sup>1</sup>, Marciane Magnani<sup>2</sup>, Raúl J. H. Castro-Gomézi, <sup>1</sup>State University of Londrina, <sup>2</sup>Federal University of Paraiba, Brazil

**10:40–11:00 Coffee Break**

- 11:00–11:20 *The effect of different treatments on the sensory attributes of orange juices - parallel sensory and electronic nose and tongue evaluations - Diána Bánáti<sup>1</sup>, Róbert Romvári<sup>2</sup>, Erzsébet Szabó<sup>1</sup>, Judit Hátori<sup>1</sup>, Zsuzsanna Vámos-Falusi<sup>1</sup>, <sup>1</sup>Central Research Institute, <sup>2</sup>University of Kaposvár, Hungary*
- 11:20–11:40 *Gender differences in gazing behavior, expectation, and the taste perception of unfamiliar colored food - Srinual Jantathai<sup>1,2</sup>, Klaus Dürschmid<sup>1</sup>, <sup>1</sup>University of Natural Resources and Life Sciences, Austria, <sup>2</sup> Mahasarakham University, Thailand*
- 11:40–12:00 *South African adult metropolitan consumers' opinions and use of health information on food labels - Daleen van der Merwe, Magdalena J.C Bosman, Susanna M. Ellis, Johann C. Jerling, Jane Badham, North-West University, South Africa*
- 12:00–12:20 *Descriptive sensory analysis and Portuguese consumer acceptability of Bissap hibiscus drinks with African origin - M. Q. Freitas<sup>1,2</sup>, M .I. Franco<sup>1</sup>, S. Teixeira<sup>1</sup>, A. P da Silva<sup>1</sup>, M. J. Monteiro<sup>1</sup>, M. Cissé<sup>3</sup>, D. Pallet<sup>4</sup>, B. Bennett<sup>5</sup>, A. Bechoff<sup>5</sup>, K.T Omlins<sup>5</sup>, M. M. Pintado<sup>1</sup>, <sup>1</sup>CBQF - Superior School of Biotechnology, Portugal, <sup>2</sup>Fluminense Federal University, Brazil, <sup>3</sup>Association Afrique Agro Export, Sénégal, <sup>4</sup>University of Greenwich, UK*

14:30–17:50 **Research in Food and Nutrition**

**Chairs:** Elza Louko Ida, State University of Londrina, Brazil  
Elizabeth A. F. S. Torres, University of São Paulo, Brazil

- 14:30–14:50 Overview by the Chairs
- 14:50–15:10 *Fructooligosaccharides increase bone mineral density through an interleukin-6-mediated mechanism in growing female Wistar rats - Vivian C. C. Vieira, Glaucia C. Lima, Cláudia C. Netto, Cinthia B. B. Cazarin, Anne C. Marques, Mário R. Maróstica Júnior, University of Campinas, Brazil*
- 15:10–15:30 *Lipid and glycemic profile of rats fed a semi-purified diet supplemented with Agaricus brasiliensis mushroom - Gilberto Simeone Henriques, Cristiane Viera Helm, Maria Lúcia Ferreira Simeone, Federal University of Minas Gerais, Brazil*
- 15:30–15:50 *Glycemic index of corn and athletic performance - Leonora N. Panlasigui<sup>1</sup>, Merridette S. Sales<sup>2</sup>, Luigi T. Bercades<sup>2</sup>, Erniel B. Barrios<sup>2</sup>, Janine Margarita Dizon<sup>3</sup>, <sup>1</sup>Philippine Women's University, <sup>2</sup>University of The Philippines, <sup>3</sup>University of Sto. Tomas, Philippines*
- 15:50–16:10 *Functional and pasting properties of cassava flours processed with red palm oil - Joseph Oneh Abu, Iorbee Ayangealumum, Chinma Chiemela Enyinnaya, Yakubu Caleb Maina, University of Agriculture, Nigeria*
- 16:10–16:30 Coffee Break**
- 16:30–16:50 *Formulating low glycemic index rice flour to be used as a functional ingredient - Khongsak Srikaeo, Pibulsongkram Rajabhat University, Thailand*
- 16:50–17:10 *Research on energy sustained-release noodles and demonstration of postprandial blood glucose controlling - Shaoyun Wang, Yueping Lin, Pingfan Rao, Fuzhou University, China*
- 17:10–17:30 *Consumption of baru seed, peanut and Brazil nut protect against lipid peroxidation in rats - Daniela C. Fernandes, Aline M. Alves, Amanda G. O. Souza, Jullyana Borges de Freitas, Maria Margareth V. Naves, Federal University of Goiás, Brazil*
- 17:30–17:50 *Cardioprotective effect of oil extract of Citrullus lanatus seeds in rats fed a high cholesterol diet - Godwin C. Ojeh<sup>1</sup>, Olarewaju M. Oluba<sup>2</sup>, <sup>1</sup>Ambrose Alli University, <sup>2</sup>Joseph Ayo Babalola University, Nigeria*

Expocenter C2-C3

09:00–12:30 **Focus on Educational Capacity Building. Are we preparing Food Science and Technology Professionals Adequately for Present and Future Challenges?**

**Chairs:** Daryl Lund, University of Wisconsin-Madison, USA  
Aman Wirakartakusumah, SEAFoST Center, Indonesia

09:00–09:30 *The IUFoST distance education program* - Daryl Lund<sup>1</sup>, Donald Mercer<sup>2</sup>, <sup>1</sup>University of Wisconsin-Madison, USA, <sup>2</sup>University of Guelph, Canada

09:30–10:00 *The IUFoST Education Committee and the IUFoST Certified Curricula in Food Science* - Aman Wirakartakusumah, SEAFoST Center, Indonesia

10:00–10:30 *Food Science and Technology Education in Europe* - Geoffrey Campbell-Platt, University of Reading, UK

**10:30–11:00 Coffee Break**

11:00–11:30 *The undergraduate and graduate curricula in Latin America* - Glauca Maria Pastore, University of Campinas, Brazil

11:30–12:00 *The undergraduate and graduate curricula in Africa* - John Taylor and Amanda Minnaar, University of Pretoria, South Africa

12:00–12:30 *The undergraduate and graduate curricula in North America* - Rickey Yada<sup>1,2</sup>, Charity Parr-Vasquez<sup>2</sup>, Brian C. Bryksa<sup>1</sup>, <sup>1</sup>University of Guelph, <sup>2</sup>Advanced Foods and Materials, Canada

**14:30–18:30 Modeling Simulation of Basic and Integrated Processes (sponsored by GeFFoST)**

**Chairs:** Carole Tonello, Hiperbaric, Spain  
Antonio Delgado, Friedrich-Alexander University, Germany

14:30–15:00 *Multiphysics modeling of innovative food processing technologies: Process validation and optimization* - K. Knoerzer and P. Juliano, CSIRO Animal, Food and Health Sciences, Australia

15:00–15:30 *Temperature uniformity in high pressure industrial equipment: simulations and measurements* - B. Val Aparicio<sup>1</sup>, R. Ruiz<sup>1</sup>, T. Grauwet<sup>2</sup>, M. Hendrickx<sup>2</sup> and C. Tonello<sup>1</sup>, <sup>1</sup>Hiperbaric, Spain, <sup>2</sup>KU Leuven, Belgium

15:30–16:00 *Controlled release of volatile components from hydrocolloids: extending storage life of fresh product* - O. Gouseti, P.J. Fryer and S. Bakalis University of Birmingham, United Kingdom

**16:00–16:30 Coffee Break**

16:30–17:00 *Simulation of flow and related phenomena in food production and processing* - M. Peric<sup>1</sup>, F. Kasper<sup>1</sup>, C. Rauh<sup>2</sup> and A. Delgado<sup>2</sup>, <sup>1</sup>CD- adapco, Germany, <sup>2</sup>Friedrich-Alexander University, Germany

17:00–17:30 *Thermo-physical Investigations in life-science based foams by means of Lattice Boltzmann Method: Impact of material properties* - S. Mack, M.A. Hussein, T. Becker, T.U. München, Technical University Munich, Germany

17:30–18:00 *A food engineering approach to the modeling of the human masticatory function* - B. Le Révérend, C. Loret, C. Hartmann, Nestlé Research Center, Switzerland

18:00–18:30 *Beyond classical modeling and simulation: Novel possibilities by Hybrid Methods elucidated exemplarily at texture perception of foods* - C. Rauh, M. Nagel and A. Delgado, Friedrich-Alexander University, Germany

## Itamuri II

09:00–12:20 **Research on Food Safety**

**Chairs:** Myrna Sabino, Adolfo Lutz Institute, Brazil  
Felix Guillermo Reyes Reyes, University of Campinas, Brazil

09:00–09:20 Overview by Chairs

- 09:20–09:40 *Economically motivated adulteration of food: Challenges* - Karen Everstine, Bethany Stave, Frank Busta, Shaun Kennedy, University of Minnesota, USA
- 09:40–10:00 *Hygienic and safety assessment of ready-to-eat food processing industrial facilities in Portugal* - A. R. Henriques, A. S. Barreto, M. J. Fraqueza, Centro de Investigação Interdisciplinar em Sanidade Animal, Portugal
- 10:00–10:20 *Rapid identification of Escherichia coli O157:H7 by using high performance ion-exchange liquid chromatography (HPIELC) of intact bacterial cells* - Shu-tao-Liu, Zhao-hua Chen, Jian-wu Zhou, Li-jing Ke, Juan Lin, Jing-Ke Guo, Ping-fan Rao, Fuzhou University, China
- 10:20–10:40 *Biocontrol of cyanobacteria and biodegradation of microcystin by environmental yeasts (anthill and sugar-bioethanol plant) intended for water treatment* - Tatiana de Ávila Miguel, Gisele M. A. de Nóbrega, Daiane D. Lopes, Cátia L. Yokohama, Fernando C. Pagnocca, Emília K. Kuroda, Kiyomi Tsuji, Osamu Kawamura, Elisabete H. Hashimoto, Ken-ichi Harada, Elisa Y. Hirooka, State University of Londrina, Brazil
- 10:40–11:00 Coffee Break**
- 11:00–11:20 *Biochemical characterization of toxic compounds detected in seeds of fruits from Brazilian central plain (cerrado)* - Kátia F. Fernandes, Luane F. Garcia, Luann G. V. Reis, Karla A. Batista, Paulo C. Ghedini, Armando Garcia Rodriguez, Federal University of Goiás, Brazil
- 11:20–11:40 *Population dynamics of molluscan Vibrio species in Canada's estuarine ecosystem: Implications for seafood safety and human health* - Swapan K. Banerjee, Laurène Bakouche, Jeffrey M. Farber, Health Canada, Canada
- 11:40–12:00 *Use of isothiocyanates to reduce the levels of fumonisins in vitro and in corn* - G. Meca<sup>1</sup>, F. B. Luciano<sup>2</sup>, I. Azaiez<sup>1</sup>, M. Fernández-Franzón<sup>1</sup>, J. Mañes<sup>1</sup>, <sup>1</sup>University of Valencia, Spain, <sup>2</sup>Pontifícia Universidade Católica, Brazil
- 12:00–12:20 *Quality management in extensive shrimp (Penaeus monodon) farming* - S. M. Nazmul Alam School of Social Sciences, Curtin University, Australia
- 14:30–18:10 **Optimization of Traditional Processing Technologies**
- Chairs:** Geraldo Arraes Maia, Federal University of Ceará, Brazil  
Darunee Edwards, Food Science and Technology Association of Thailand (FoSTAT), Thailand
- 14:30–14:50 Overview by Geraldo Arraes Maia
- 14:50–15:10 *Making high quality chocolate with lower resource consumption* - Knut Franke, Katrin Heinzelman, German Institute of Food Technologies, Germany
- 15:10–15:30 *Physico-chemical and functional properties of spray-dried sourdough in breadmaking* - Abolfazl Golshan Tafti<sup>1,2</sup>, Seyed Hadi Peighambaroust<sup>1</sup>, Javad Hesari<sup>1</sup>, Akbar Bahrami<sup>1</sup>, Elnaz Shakuoie Bonab<sup>1</sup>, <sup>1</sup>University of Tabriz, <sup>2</sup>Agricultural Research Centre, Iran
- 15:30–15:50 *Comparative study between solar dryer and open-air drying on the drying rate constant, drying efficiency and nutritional quality of selected food ingredients* - U. S. Onoja, J. O. Iroegbu, J. I. Eze and U. M. E. Dibua, University of Nigeria, Nigeria
- 15:50–16:10 *Characterization of pitanga roxa (Eugenia uniflora L.) powder produced from foam mat drying* - Modesto Antonio Chavez, Isadora Monteiro Andrade Barreto, Vinícius Carvalho Souza, Betania dos Santos Souza, Daniela Vieira Chaves, State University of Southwestern Bahia, Brazil
- 16:10–16:30 Coffee Break**
- 16:30–16:50 *Sensory acceptability of squid (Illex argentinus) rings preserved by gamma irradiation during refrigerated storage* - Alejandra Tomac<sup>1</sup>, Constanza Cova<sup>2</sup>, Patricia Narvaiz<sup>2</sup>, María Isabel Yeannes<sup>1,3</sup>, <sup>1</sup>National University of Mar del Plata, <sup>2</sup>National Atomic Energy Commission, <sup>3</sup>National Scientific and Technical Research Council, Argentina
- 16:50–17:10 *Use of the bacteriocin, nisin, as a preservative in processed meat* - Joss Delves-Broughton, George Weber, Torben Snabe, Willy Nunez, Larry Steenson, Dupont Health and Nutrition, USA and UK

- 17:10–17:30 *Optimization of microwave cooking of hotpot dish in terms of nutrient preservation, taste and energy consumption* - [Laquerre Jean-Claude](#)<sup>1</sup>, Douiri-Bédoui Imen<sup>1</sup>, Jacolot Philippe<sup>1</sup>, Lozano Bustos Eduardo Alonso<sup>2</sup>, Jouquand Céline<sup>1</sup>, Tessier Frédéric<sup>1</sup>, Woodward Ken<sup>3</sup>, Gadonna-Widehem Pascale<sup>1</sup>, <sup>1</sup>La Salle Beauvais Institute, France, <sup>2</sup>Universidad La Salle, Mexico, <sup>3</sup>Brighton School of Service Management, UK
- 17:30–17:50 *Gluten-free extruded snacks made from lentil-based formulations fortified with dietary fibers* - J. de J. Berrios, USDA-ARS, Western Regional Research Center, USA
- 17:50–18:10 *Active chitosan coatings with antimicrobial peptides to control mold growth on the surface of fermented and smoked meat sausages* - M. Nascimento<sup>1</sup>, A.J.I. Alfaia<sup>2</sup>, M.H.L. Ribeiro<sup>2</sup>, A.S. Barreto<sup>1</sup>, [M.J. Fraqueza](#)<sup>1</sup>, <sup>1</sup>UTLisbon, Centro de Investigação Interdisciplinar em Sanidade Animal, <sup>2</sup>University of Lisbon, Portugal

## Iguaçu I

09:00–10:30 **Are processed foods the villains of human health?**

**Chair:** Glaucia Maria Pastore, University of Campinas, Brazil

**Panelists:** Edmundo Klotz, President, ABIA, Brazil  
David B. Schmidt, President and CEO, IFIC, USA  
Denise de Oliveira Resende, ANVISA, Brazil

10:30–11:00 **Coffee Break**

11:00–12:30 **Food Science and Technology's Role in Sustainable Development**

**Chair:** Vishweshwaraiah Prakash, Distinguished Scientist, CSIR - India

**Panelists:** Harjinder Singh, Riddet Institute, New Zealand  
Jaime Amaya-Farfan, University of Campinas, Brazil  
Alastair Hicks<sup>1</sup>, [Kenneth Marsh](#)<sup>2</sup>, <sup>1</sup>Mae Fah Luang University, Thailand, <sup>2</sup>Woodstock Institute for Science in Service to Humanity, USA

14:30–16:00 **Interaction between Agriculture, Nutrition and Food Science/Technology: A necessity?**

**Chair:** David Lineback, University of Maryland, USA

**Panelists:** Jamuna Prakash, University of Mysore, India  
Ruth Oniang'o, Founder and CEO, Rural Outreach Africa, Kenya  
John R. Lupien, University of Massachusetts, USA

16:00–16:30 **Coffee Break**

16:30–18:00 **Women in Food Science and Technology**

**Chair:** Ruth Oniang'o, Founder and CEO, Rural Outreach Africa, Kenya

**Panelists:** Anne-Marie Hermansson, Chalmers University of Technology, Sweden  
Leonora N. Panlasigui<sup>1</sup> and Sonia Y. de Leon<sup>2</sup>, <sup>1</sup>Philippine Women's University, <sup>2</sup>University of the Philippines, Philippines  
Maria Beatriz Abreu Gloria (Brazil)

## Iguaçu II

### 09:00–12:30 **ALACCTA Session II: Meat and Milk Products**

**Chairs:** Milk Section: Eduardo Fresco, FEPALE, Uruguay  
Marcos Taranto, SUCTAL, Uruguay  
Meat Section: Cristina López, Universidad de la República, Uruguay  
María Concepción Martínez, ASPATAL, Paraguay

- 09:00–09:30 *Latin American dairy: Situation and outlook* - Eduardo Fresco, Federación Panamericana de la Leche, Uruguay
- 09:30–10:00 *Safety of milk: Methods to guarantee adequate raw material* - Pilar Meléndez, Universidad Nacional, Colombia
- 10:00–10:30 *World market trends and technological developments in fermented milks and dairy beverages* - David Sepúlveda, CIAD, México
- 10:30–11:00 Coffee Break**
- 11:00–11:30 *Research in industry as means for innovation and development of new solutions for the market* - Oscar Ochoa, Alimentos Cárnicos Zenú, Colombia
- 11:30–12:00 *The concept of extenders in Science and Technology of Food. Experiences of Cuba in meat and milk industries* - Jesús Yañez Querejeta, Alvaro García Uriarte, Research Institute of Food Industry, Cuba
- 12:00–12:30 *Clean technology in the refrigeration industry of meat and poultry. Experiences in Mercosur* - Sergio Oddone, Universidad Católica Nuestra Señora de la Asunción, Paraguay

### 14:30–18:00 **ALACCTA Session III: Food Security and Safety**

**Chairs:** Silvina Faillaci, Universidad Nacional de Córdoba, Argentina

- 14:30–15:00 *Challenges and innovations in the detection of STEC* - Marta Rivas, Instituto Nacional de Enfermedades Infecciosas - ANLIS “Dr. Carlos G. Malbrán”, Argentina.
- 15:00–15:30 *Mitigation of the formation of acrylamides in highly consumed foods* - Franco Pedreschi, Salomé Mariotti, Pontificia Universidad Católica de Chile, Chile
- 15:30–16:00 *Safety of vegetables in the field, during harvest and packaging* - Santos García, Universidad Autónoma de Nuevo León, Mexico
- 16:00–16:30 Coffee Break**
- 16:30–17:00 *Application of food safety risk analysis principles at industry level* - Jairo Romero, International Food Safety Risk Management Consultant, Colombia
- 17:00–17:30 *New US regulation on food safety* - Gisela Kopper, US Food and Drug Administration (FDA), Costa Rica
- 17:30–18:00 *Evaluation of the risk of ingesting chemical contaminants in foods* - José Miguel Bastías, Universidad del Bio Bio, Chile

## Iguaçu III-IV-V

### 09:00–12:30 **Nanotechnology IV: Stakeholder Confidence**

**Chair:** Hongda Chen, USDA, USA

- 09:00–09:30 *The International Society of Food Applications of Nanoscale Sciences (ISFANS) as an outreach*

instrument for food nanotech science - Rickey Yada<sup>1</sup>, Hongda Chen<sup>2</sup>, Frans Kampers<sup>3</sup>, Charity Parr-Vasquez<sup>4</sup>, Jochen Weiss<sup>5</sup>, <sup>1</sup>University of Guelph, Canada, <sup>2</sup>USDA-National Institute of Food and Agriculture, USA, <sup>3</sup>Wageningen BioNT, The Netherlands, <sup>4</sup>Advanced Foods and Materials Canada, <sup>5</sup>University of Hohenheim, Germany

9:30–10:00 *Navigating the legal implications of nanotechnologies in foods: A bird's eye view on the current state of play, and the challenges ahead* - Diana Bowman, The University of Michigan, USA

10:00–10:30 *Development of environmental and societal impact indicators to assess the safety of agricultural nanoproducts* - Beatriz F. Carniel, Katia R. E. Jesus, EMBRAPA Environment, Brazil

#### 11:00–11:30 **Coffee Break**

11:10–11:30 *Approaches to the safety assessment of engineered nanomaterials (ENM) in food* - Andrew Cockburn, Roberta Bradford, Neil Buck, Anne Constable, Gareth Edwards, Bernd Haber, Paul Hepburn, John Howlett, Frans Kampers, Christoph Klein, Marek Radomski, Hermann Stamm, Susan Wijnhoven, Tanja Wildemann, ENM Workgroup

11:30–12:00 *Harmonization of regulations across markets* - Diána Bánáti, International Life Sciences Institute (ILSI) Europe, Belgium

12:00–12:30 *Ethical aspects of nanotechnology in the area of food and food manufacturing* - Herbert J. Buckenhüskes, Deutsche Landwirtschaftliche Gesellschaft (DLG), Germany

#### 14:30–18:00 **Trends in Food Flavor and Texture**

**Chairs:** Katsuyoshi Nishinari, Osaka City University, Japan  
Narendra Narain, Federal University of Sergipe, Brazil

14:30–15:00 *Hydrocolloids controlling the texture and flavor release* - Katsuyoshi Nishinari, Osaka City University, Japan

15:00–15:30 *The rheology of colloidal and noncolloidal dispersion* - M.A. Rao, Cornell University, USA

15:30–16:00 *Food oral processing: some fundamental principles underpinning eating and sensory perception* - Jianshe Chen, University of Leeds, UK

#### 16:00–16:30 **Coffee Break**

16:30–17:00 *Flavor compounds in fruits: relation with texture* - Narendra Narain, Federal University of Sergipe, Brazil

17:00–17:30 *Flavor release and perception* - Elisabeth Guichard, French National Institute for Research in Agronomics (INRA), France

17:30–18:00 *Salt release in mouth and perception: in vitro, in vivo and modeling approaches to help in designing palatable and healthy foods* - C. de Loubens<sup>1,2</sup>, M. Panouillé<sup>2,1</sup>, A. Saint-Eve<sup>2,1</sup>, I. Déléris<sup>1,2</sup>, C. Tréléa<sup>2,1</sup>, I. Souchon<sup>1,2</sup>, <sup>1</sup>INRA, <sup>2</sup>AgroParis Tech, France

#### 13:30–14:30 **Poster Session**

**Chairs:** José Benício Paes Chaves, Federal University of Viçosa, Brazil  
Karen Signori Pereira, Federal University of Rio de Janeiro, Brazil

**Topics:** Food Microbiology  
Food Safety  
Sensory and Consumer Science  
Bioactive Compounds and Functional Foods  
Food and Nutrition

#### 18:00–19:00 **Poster Session**

**Chairs:** Lucia Maria Jaeger de Carvalho, Federal University of Rio de Janeiro, Brazil  
Gustavo Molina, University of Campinas, Brazil

Topics: Food Microbiology  
Food Safety  
Sensory and Consumer Science  
Bioactive Compounds and Functional Foods  
Food and Nutrition

IUFoST

Wednesday | August 8, 2012

## Expocenter A

09:00–12:30 **Nuts in a Global Setting (sponsored by the International Tree Nut and Dried Fruit Council)**

**Chair:** Ezzedine Boutrif, Food and Agriculture Organization of the United Nations (FAO), Tunisia

09:00–09:30 *Overview of food security priorities and international initiatives* - Ezzedine Boutrif, Former Director, Nutrition and Consumer Protection Division, FAO Retiree, Rome

09:30–10:00 *Global dietary guidelines and nut health benefits* - Karen Lapsley, Almond Board of California, USA

10:00–10:30 *Multi-country (Ghana, Brazil, USA) appetite and dietary effects of consuming an energy dense snack (nuts)* - Richard Mattes, Purdue University, USA

**10:30–11:00 Coffee Break**

11:00–11:30 *Global trends in nut production, trade and food safety* - Julie Adams, International Tree Nut and Dried Fruit Council, USA

11:30–12:00 *Developments in roasting and thermal pasteurization of tree nuts* - Rainer Perren, RPN Food Technology AG, Switzerland.

12:00–12:30 *Strategies for aflatoxin elimination in peanut products in under-industrialized nations in Asia and Africa* - Anna Resurreccion, University of Georgia, USA

14:30–18:00 **ISNFF Symposium: Recent Developments in Functional Foods**

**Chairs:** Fereidoon Shahidi, Memorial University of Newfoundland, Canada

Franco Maria Lajolo, University of São Paulo, Brazil

14:30–15:00 *Functional foods, nutraceuticals and medicinals: Bridging the barriers* - Fereidoon Shahidi, Memorial University of Newfoundland, Canada

15:00–15:30 *Bioactive peptides and protein hydrolysates for nutraceutical and functional food applications* - Eunice C.Y. Li-Chan, The University of British Columbia, Canada

15:30–16:00 *Ancient wisdom: to enlighten functional food research* - Pingfan Rao, Fuzhou University, China

**16:00–16:30 Coffee Break**

16:30–17:00 *Alzheimer disease risk reduction with food bioactive components* - Lucy Sun Hwang, National Taiwan University, Taiwan

17:00–17:30 *Phytochemicals for cancer prevention: Molecular targets* - Rui Hai Liu, Cornell University, USA

17:30–18:00 *Understanding functional foods continuum* - James Griffiths<sup>1</sup>, Roger Clemens<sup>2</sup>, <sup>1</sup>United States Pharmacopeia, <sup>2</sup>E. T. Horn Co., USA

## Expocenter B

09:00–12:30 **Current and Emerging Issues in Assuring Microbiological Safety of Foods**



**Chairs:** Vijay K. Juneja, United States Department of Agriculture (USDA), USA  
Purnendu C. Vasavada, University of Wisconsin - River Falls, USA

09:00–09:10 Introduction

09:10–09:45 *Foodborne pathogens - recent outbreaks, emergence and lessons learned* - Purnendu C. Vasavada, University of Wisconsin - River Falls, USA

09:45–10:20 *Assuring fresh produce safety: The intersection of Microbiology and Physics* - Hussein Mohamed, Mykola Shynkaryk, Mustafa Vurma, Ram Pandit, Amrish Chawla, Mustafa Yesil, Ahmed Yousef, Sudhir Sastry, The Ohio State University, USA

10:20–10:55 *Rapid detection, characterization and monitoring of microorganism: Tools of the trade* - Daniel Y.C. Fung, Kansas State University, USA

**10:55–11:10 Coffee Break**

11:10–11:45 *Advances in biosensors and related technologies for detection of pathogens, toxins and biomolecules* - Arun Bhunia, Purdue University, USA

11:45–12:20 *Microbial food safety in South America* - Bernadette Franco, University of São Paulo, Brazil

12:20–12:30 Closing Remarks

14:30–18:00 **Hot Topics in Food Production and Food Technology**

**Chairs:** Herbert Buckenhueskes, Deutsche Landwirtschaftliche Gesellschaft (DLG), Germany  
Kwan Hwa Park, Seoul National University, South Korea

14:30–15:00 *Sustainability of advanced biofuels and biobased chemicals in cereals refineries* - Paul Colonna, French National Institute for Research in Agronomics (INRA), France

15:00–15:30 *Sustainability of the sugar-alcohol industry* - Luis Augusto Barbosa Cortez, University of Campinas, Brazil

15:30–16:00 *The changing concept of food security, the UN role* - John Lupien, University of Massachusetts, USA

**16:00–16:30 Coffee Break**

16:30–17:00 *The pros and cons of genetically modified foods* - Herbert Buckenhueskes, Deutsche Landwirtschaftliche Gesellschaft (DLG), Germany

17:00–17:30 *The management of food activism* - Nigel Sunley, Sunley Consulting, South Africa

17:30–18:00 *The global non-communicable disease dilemma: How science-based food and health communications strategies can advance effective solutions* - Kimberly Reed, International Food Information Council, USA

## Expocenter C1

09:00–12:20 **Research on Bioactive Compounds and Functional Foods**

**Chairs:** Helena Teixeira Godoy, University of Campinas, Brazil  
Virginia Eustolia Melo Ruiz, Universidad Autónoma Metropolitana, Mexico

09:00–09:20 *Overview: Bioactive compounds and functional foods* - Helena Teixeira Godoy, University of Campinas, Brazil

09:20–09:40 *Highly-pigmented vegetables and their potential health benefits* - Rong Tsao<sup>1</sup>, Hongyan Li<sup>1</sup>, Chanli Hu<sup>2</sup>, Mary Ruth McDonald<sup>2</sup>, Al Sullivan<sup>2</sup>, Dan Ramdath<sup>1</sup>, <sup>1</sup>Guelph Food Research Centre, <sup>2</sup>University of Guelph, Canada

09:40–10:00 *Changes in bioactives compounds in different culinary processes on seaweed *Himantalia elongata** - Júlia López Hernández, Kamila Teresa Amorim Carrilho, María Asunción Lage

Yusty, Universidad de Santiago de Compostela, Spain

10:00–10:20 *Elaboration of a sugar free oatmeal cookie with addition of a hypoglycemic functional ingredient* - Hugo Núñez, Luis Riveros, Ana María Estévez, Ana Maria Fabry, Inés Cea, Universidad de Chile, Chile

10:20–10:40 *Cell study under oxidative stress for evaluating the neuroprotective effect of selected fruit juices* - Pei-Feng Tsai<sup>1</sup>, Fang-Chi Cheng<sup>1</sup>, Mei-Yuh Chung<sup>2</sup>, James S. B. Wu<sup>1</sup>, <sup>1</sup>National Taiwan University, <sup>2</sup>Wei Chuan Foods Corporation, Taiwan

**10:40–11:00 Coffee Break**

11:00–11:20 *Strategies of functionalization of milk fermented by various strains of *S. thermophilus* with peptides from bovine  $\alpha$ s1-casein displaying in vivo benzodiazepine-like activity* - Hafeez Zeeshan, Cakir-Kiefer Céline, Girardet Jean-Michel, Dary Annie, Miclo Laurent, Université de Lorraine, France

11:20–11:40 *Effect of digestion of *Camellia sinensis* and *Aspalathus linearis* teas on antioxidant content and activity and their protection against oxidative damage* - P. Müller, A. Oelofse, M. J. Bester and K. G. Duodu, University of Pretoria, South Africa

11:40–12:00 *Bioactive peptides from fish muscle* - Nazlin K. Howell, Chitundu Kasase, University of Surrey, UK

12:00–12:20 *Scheme for the study of volatile compounds formed by carotenoid oxidation* - Cintia N. Kobori<sup>1</sup>, Marisa Padula<sup>2</sup>, Roger Wagner<sup>3</sup>, Delia B. Rodriguez-Amaya<sup>1</sup>, <sup>1</sup>University of Campinas, <sup>2</sup>Institute of Food Technology, <sup>3</sup>Federal University of Santa Maria, Brazil

**14:30–17:50 Advances in Food Biochemistry and Biotechnology**

**Chairs:** Ralf Greiner, Max Rubner-Institut, Germany  
Gabriela Alves Macedo, University of Campinas (Brazil)

14:30–14:40 *Overview: Current issues in food biochemistry and biotechnology* - Ralf Greiner, Max Rubner-Institut, Germany

14:40–14:50 *Overview: Food biochemistry and food processing* - Gabriela Alves Macedo, University of Campinas (Brazil)

14:50–15:10 *The distribution and content of anthocyanins in new Brs Violeta (BRS Rúbea x IAC 1398-21) young wines using HPLC-DAD-ESI-MS/MS* - Ellen S. Lago-Vanzela<sup>1</sup>, Afonso M. Ramos<sup>1</sup>, Paulo C. Stringheta<sup>1</sup>, Esteban García-Romero<sup>2</sup>, Isidro Hermosín-Gutiérrez<sup>2</sup>, Eleni Gomes<sup>3</sup>, Roberto Da-Silva<sup>3</sup>, <sup>1</sup>Federal University of Viçosa, Brazil, <sup>2</sup>Universidad de Castilla-La Mancha, Spain, <sup>3</sup>São Paulo State University (UNESP)

15:10–15:30 *Preparation and isolation of antifreeze peptides from shark skin gelatin with hypothermia protection activity* - Shaoyun Wang, Jun Zhao, Pingfan Rao, Fuzhou University, China

15:30–15:50 *Bioconversion of  $\alpha$ -pinene and  $\beta$ -pinene for the production of new flavor compounds by fungal endophytes* - Gustavo Molina, Mariana R. Pimentel, Thayse C. P. Bertucci, Gláucia M. Pastore, University of Campinas, Brazil

15:50–16:10 *Characterization of starch-modifying enzymes and their application to rice cake and noodle making* - Nam Suk Seo<sup>1</sup>, Jae Hoon Shim<sup>2</sup>, Phuong Lan Tran<sup>3</sup>, Dang Hai Dang Nguyen<sup>4</sup>, Quang Tri Le<sup>5</sup>, Kwan Hwa Park<sup>3</sup>, <sup>1</sup>Jewon International Corp., Korea, <sup>2</sup>Hallym University, Korea, <sup>3</sup>Sangmyung University, Korea, <sup>4</sup>University of Incheon, Korea, <sup>5</sup>Saigon Technology University, Vietnam

**16:10–16:30 Coffee Break**

16:30–16:50 *Transport of amino acids from bovine milk whey through a Caco-2 cells monolayer* - Antonio José Goulart, Juliana Cristina Bassan, Eliana A. Varanda, Flávia Aparecida Resende, Ana Lúcia M. Nasser, Saulo S. Garrido, Reinaldo Marchetto, Rubens Monti, State University of São Paulo (UNESP), Brazil

17:50–17:10 *A MALDI-TOF based study of the in-vivo assembly of wheat glutenin polymers* - Mariana S. L. Ferreira<sup>1</sup>, Cécile Mangavel<sup>2</sup>, Hélène Rogniaux<sup>2</sup>, Joëlle Bonicel<sup>1</sup>, Marie-Françoise Samson<sup>1</sup>,

Marie-Hélène Morel<sup>1</sup>, <sup>1</sup>INRA, CIRAD-UM2-SupAgro, <sup>2</sup>INRA, Unité de Reserche, France

17:10–17:30 *β-Lactoglobulin exists as a dimer in food and your stomach* - Laurence D. Melton<sup>1,2</sup>, Davide Mercadante<sup>1,2</sup>, Renwick Dobson<sup>3</sup>, Geoffrey B. Jameson<sup>2,4</sup>, Martin A.K. Williams<sup>2,4</sup>, <sup>1</sup>University of Auckland, <sup>2</sup>Riddet Institute, <sup>3</sup>University of Canterbury, <sup>4</sup>Massey University, New Zealand

17:30–17:50 *Production and biochemical characterization of a protease from *Aspergillus oryzae*: Application in protein hydrolysis for increasing the antioxidant power of bioactive peptides* - Ruann Janser Soares de Castro, Hélia Harumi Sato, University of Campinas, Brazil

## Expocenter C2-C3

09:00–12:25 **Symposium in Honor of David Min: Food Component Reactions and their Impact on Food Quality and Human Health**

**Chairs:** Rory Ryan, The Institute of Food Science and Technology of Ireland, Ireland  
Leif Horsfelt Skibsted, University of Copenhagen, Denmark

09:00–09:35 *Update on lipid oxidation* - Hans Steinhart<sup>1</sup>, Karin Schwarz<sup>2</sup>, <sup>1</sup>University of Hamburg, <sup>2</sup>University of Kiel, Germany

09:35–10:10 *Update on protein oxidation* - Leif Horsfelt Skibsted, University of Copenhagen, Denmark.

10:10–10:45 *Update on the Maillard reaction* - Deborah H. Markowicz Bastos, University of São Paulo, Brazil

**10:30–11:00 Coffee Break**

11:15–12:50 *Isomerization and oxidation of carotenoids* - Delia B. Rodriguez-Amaya, University of Campinas, Brazil.

11:50–12:25 *Acrylamide formation* - Richard R. Stadler, Nestle Ltd., Switzerland.

14:30–18:00 **Innovations and Trends in Food Packaging**

**Chairs:** Gordon L. Robertson, University of Queensland, Australia  
Luis Fernando Ceribelli Madi, Food Technology Institute (ITAL), Brazil

14:30–15:00 *Food packaging and shelf life: Lessons from the literature* - Gordon L. Robertson, University of Queensland, Australia

15:00–15:30 *Brasil Food Trends 2020: A packaging approach* - Luis Fernando Ceribelli Madi and Claire Sarantópoulos, Food Technology Institute (ITAL), Brasil

15:30–16:00 *Packaging sustainability in the context of the food value chain* - Anne Roulin, Nestle Ltd., Switzerland

**16:00–16:30 Coffee Break**

16:30–17:00 *Recent developments in edible films and coatings* - Henriette Monteiro Cordeiro de Azeredo, EMBRAPA, Brasil

17:00–17:30 *Concept and application of target release rate for controlled release packaging* - Kit L. Yam, Rutgers University, USA

17:30–18:00 *Recent developments in modified atmosphere packaging for fruits and vegetables* - Min Zhang, Jiangnan University, China

## Itamuri II

09:00–12:00 **Research on Food Security**

**Chairs:** Donald Mercer, University of Guelph, Canada  
Ravishankar Gokare, Central Food Technological Research Institute, India

- 09:00–09:20 *An IUFoST Guide for Fruit and Vegetable Drying in Sub-Saharan Africa* - Donald G. Mercer<sup>1</sup>, Walter E.L. Spiess<sup>2</sup>, Daryl B. Lund<sup>3</sup>, <sup>1</sup>University of Guelph, Canada, <sup>2</sup>Karlsruhe Institut für Technologie, Germany, <sup>3</sup>University of Wisconsin, USA
- 09:20–09:40 *India's efforts in meeting the nutritional security through food diversification, food processing and biotechnology* - G. A. Ravishankar, Central Food Technological Research Institute, India
- 09:40–10:00 *Policy approach towards food security in National Biosafety Frameworks for Trinidad and Tobago, Bangladesh and Philippines* - Neela Badrie<sup>1</sup>, Ruhul Amin Talukder<sup>2</sup>, Sonia Y. de Leon<sup>3</sup>, <sup>1</sup>University of the West Indies, Trinidad and Tobago, <sup>2</sup>Ministry of Food and Disaster Management, Bangladesh, <sup>3</sup>Foundation for the Advancement of Food Science and Technology, Philippines
- 10:00–10:20 *Active packaging incorporated with *L. curvatus* CRL705 bacteriocins: Effectiveness assessment in wieners* - M. Bianco Massani<sup>1</sup>, V. Molina<sup>1</sup>, M. Sanchez<sup>2</sup>, V. Renaud<sup>2</sup>, P. Eisenberg<sup>1</sup>, G. Vignolo<sup>3</sup>, <sup>1</sup>INTI-Plásticos, <sup>2</sup>INTI-Carnes, <sup>3</sup>CERELA-CONICET, Argentina
- 10:20–10:40 *Evaluation of the perception and awareness of Food Science and Technology amongst high school learners in Limpopo province of South Africa* - A. I. O Jideani, T. Takalani, M. E. Silungwe, K. Kyei, D. Beswa, T. E., Kgatla, M.E. Mashau, University of Venda, South Africa
- 10:40–11:00 Coffee Break**
- 11:00–11:20 *Technological education and food security and nutrition of ethnic Xacriabá* - Jussara M.S. Campos, Nancy dos Santos Dorna, Federal University of Rio de Janeiro, Brazil
- 11:20–11:40 *Food demand and the food security challenge with rapid economic growth in emerging economies* - Vasant P. Gandhi, Indian Institute of Management, India
- 11:40–12:00 *Analysis and evaluation of food commercialization waste in the wholesaler's warehouses of São Paulo* - Walter Belik, Dag Mendonça Lima, Mohamad Salehedim Taha, University of Campinas, Brazil

#### 14:30–16:35 Young Scientists' Session

**Chairs:** Judith Meech (Canada)  
Suzana Caetano da Silva Lannes (Brazil)

- 14:30–14:55 *Structural relaxation of binary food systems* - Yeting Liu, National University of Singapore, Singapore
- 14:55–15:20 *DNA testing reveals a high incidence of meat substitution and adulteration in South Africa* - Donna-Mareè Cawthorn, Department of Food Science, University of Stellenbosch, South Africa
- 15:20–15:45 *Sustainable chitin and chitosan extraction for application in active food packaging* - Claudia Tröger, The University of Reading, UK
- 15:45–16:10 *Mechanical properties and solubility in water of gelatin based-nanocomposite activated with potassium sorbate* - Fernanda M. Vanin, Federal University of Uberlândia, Brazil
- 16:10–16:30 *Impact of novel and non-thermal technologies on low water activity products - a food safety perspective* - Nicolás Meneses, Buhler AG, Corporate Technology, Switzerland

## Iguaçu I

9:00–13:35 **Symposium in Honor of André Tosello: Food Science and Technology in Brazil (up to 13:55 PM)**

**Chairs:** Vivaldo Silveira Jr, University of Campinas, Brazil.  
Jorge Mancini, University of São Paulo, Brazil.

- 09:00–09:25 *Physicochemical characterization and classification of Brazilian propolis: Physiological properties* - Yong Kun Park, University of Campinas, Brazil
- 09:25–09:50 *Innovations in obtaining and utilizing milk proteins in food and nutrition* - Valdemiro Sgarbieri, University of Campinas, Brazil
- 09:50–10:15 *Animal welfare and meat quality* - Massami Shimokomaki, State University of Londrina, Brazil
- 10:15–10:40 *Tropical fruit juice processing* - Geraldo Arraes Maia, Federal University of Ceará, Brazil
- 10:40–10:55 Coffee Break**
- 10:55–11:20 *Innovations in food packaging* - Marisa Padula, Food Technology Institute (ITAL), Brazil
- 11:20–12:45 *Product development at EMBRAPA* - Regina Lago, EMBRAPA Agroindustry of Foods, Brazil
- 12:45–13:10 *Information and communication technologies for teaching in food* - Julio Nitzke, Federal University of Rio Grande do Sul, Brazil
- 13:10–13:35 *Incidence and control of mycotoxins and phycotoxins* - Elisa Hirooka, State University of Londrina, Brazil
- 13:35–13:55 *Potential of biotechnology in aggregating value to food and by-products of the Brazilian agroindustry* - Carlos Ricardo Soccol, Federal University of Parana, Brazil

#### 14:30–17:50 **Advances in Food Engineering**

**Chairs:** Antonio José de Almeida Meirelles, University of Campinas, Brazil  
Paulo José do Amaral Sobral, University of São Paulo, Brazil

- 14:30–14:50 *An overview on recent advances on classical food engineering* - Antonio J. A. Meirelles<sup>1</sup>, Paulo J. A. Sobral<sup>2</sup>, <sup>1</sup>University of Campinas, <sup>2</sup>USP, Pirassununga, Brazil
- 14:50–15:10 *Water diffusion to chocolate film depending on sugar solubility* - H. Ando<sup>1</sup>, Y. Nakamuta<sup>1</sup>, K. Kagiwara<sup>1</sup>, T. Suzuki<sup>2</sup>, <sup>1</sup>Tokyo University of Technology, <sup>2</sup>Tokyo University of Marine Science and Technology, Japan
- 15:10–15:30 *Effect of microfluidization on the distribution of alpha-tocopherol in microcapsules obtained by spray drying* - M. C. Ximena Quintanilla C.<sup>1,2</sup>, Liliana Alamilla B.<sup>2</sup>, M. Eugenia Jaramillo F.<sup>2</sup>, Humberto Hernández S.<sup>2</sup>, Antonio Jiménez A.<sup>3</sup>, Gustavo Gutiérrez L.<sup>2</sup>, <sup>1</sup>Universidad de La Sabana-Chía, Colombia, <sup>2</sup>Instituto Politécnico Nacional, Mexico, <sup>3</sup>Yautepec, Morelos, Mexico
- 15:30–15:50 *Experimental evidence of freeze-drying morphology in a porous structure. A pore-scale approach* - Luis A. Segura, Cristina Vásquez, José Navarrete, Universidad del Bío-Bío, Chile
- 15:50–16:10 *Observation of spaghetti shrinkage during drying by X-ray  $\mu$ CT* - Lifeng Zhang, Hitomi Kishigami, Asako Kato, Kiyokazu Goto, Takahisa Nishizu, Gifu University, Japan
- 16:10–16:30 Coffee Break**
- 16:30–16:50 *Vapor-liquid equilibrium (VLE) and activity coefficients at infinite dilution ( $\gamma^\infty$ ) of binary systems with capric acid* - Patrícia Castro Belting<sup>1,2</sup>, Roberta Ceriani<sup>1</sup>, Jürgen Gmehling<sup>2</sup>, Antonio J. A. Meirelles<sup>1</sup>, <sup>1</sup>University of Campinas, Brazil, <sup>2</sup>Carl von Ossietzky University, Germany
- 16:50–17:10 *Microencapsulation of probiotics for fruit juice application - enhanced survival of spray-dried probiotics in whey protein based encapsulant matrices* - D.Y. Ying<sup>1,2</sup>, S Schwander<sup>3</sup>, R. Weerakkody<sup>1,2</sup>, L. Sanguansri<sup>1,2</sup>, C. Gantenbein-Demarchi<sup>3</sup>, M.A. Augustin<sup>1,2</sup>, <sup>1</sup>CSIRO Preventive Health Flagships, <sup>2</sup>CSIRO Division of Food and Nutritional Sciences, Australia, <sup>3</sup>Zurich University of Applied Sciences, Switzerland
- 17:10–17:30 *Strategy to evaluate the effect of heat treatments at high temperature on anthocyanin degradation* - Nadiarid Jiménez<sup>1</sup>, Fabrice Vaillant<sup>2</sup>, Ana Mercedes Pérez<sup>1</sup>, Philippe Bohuon<sup>3</sup>, <sup>1</sup>University of Costa Rica, Costa Rica, <sup>2</sup>CIRAD, UMR QualiSud, France, <sup>3</sup>Montpellier SupAgro, France
- 17:30–17:50 *Different protein content of microparticles produced by ionic gelation* - Juliana Bürger Rodrigues, Carlos Raimundo Ferreira Grosso, University of Campinas, Brazil

09:00–12:30 **ALACCTA IV: Health Benefits of Coffee and Cacao**

**Chairs:** Omaris Vergara, COPCYTA, Universidad de Panamá, Panamá  
Suzana Caetano da Silva Lannes, University of São Paulo, Brasil

- 09:00–09:30 *Health effects of cacao* - Eliete da Silva Bispo, Federal University of Bahia, Brazil  
 09:30–10:00 *Cocoa processing technologies: The Brazilian case* - Priscilla Efraim, University of Campinas, Brazil  
 10:00–10:30 *Cocoa production in Venezuela and the chocolate route* - Elvis Portillo, Agronomy Faculty, University del Zulia, Venezuela  
**10:30–11:00 Coffee Break**  
 11:00–11:30 *Use of new technologies to defend origin in coffee* - Luis Fernando Samper, Federación de Cafeteros de Colombia, Colombia  
 11:30–12:00 *Coffees of Brazil - Post-harvest and process effects on quality assurance aspects* - Flávio Luís Schmidt, University of Campinas, Brazil  
 12:00–12:30 *Effects of ripening stage and post-harvest processing on coffee quality* - Humberto Bizzo, EMBRAPA Food Technology, Brazil

14:30–17:50 **Advances in Food Microbiology**

**Chairs:** Frank F. Busta, University of Minnesota, USA  
Bernadette D. G. M Franco, University of São Paulo, Brazil

- 14:30–14:50 *Food Microbiology overview* - Frank F. Busta<sup>1</sup>, Bernadette D. G. M. Franco<sup>2</sup>, <sup>1</sup>University of Minnesota, USA, <sup>2</sup>University of São Paulo, Brazil  
 14:50–15:10 *Destruction parameters of *Enterococcus faecalis* for establishing the equivalence of pasteurization between classical and microwave heating* - Pascale Gadonna-Widehem, David Marier, Véronique Rame, Jean-Claude Laguerre, LaSalle Beauvais Institute, France  
 15:10–15:30 *Microbial diversity of traditional fermentation starters for Hong Qu glutinous rice wine as determined by PCR-mediated DGGE* - Xu-Cong Lv, Wen Zhang, Ping-Fan Rao, Li Ni, Fuzhou University, China  
 15:30–15:50 *Determination of carbon assimilation profiles to identify some of the yeast strains originated from traditional Erzincan Tulum Cheese* - Seda Karasu Yalcin<sup>1</sup>, Sule Senses Ergul<sup>2</sup>, Z. Yesim Ozbas<sup>3</sup>, <sup>1</sup>Abant Izzet Baysal University, <sup>2</sup>Public Health Institution of Turkey, <sup>3</sup>Hacettepe University, Turkey  
 15:50–16:10 *Practices, knowledge and attitude of street food handlers regarding food hygiene in South West Nigeria* - A. M. Omemu, S. T. Aderoju, Federal University of Agriculture, Nigeria  
**16:10–16:30 Coffee Break**  
 16:30–16:50 *Dosing and application order effects of eugenol and LAE on the growth inhibition of gram-positive and gram-negative microorganisms* - Yudith Manrique, Herbert Schmidt, Jochen Weiss, University of Hohenheim, Germany  
 16:50–17:10 *Construction of bioluminescent *Salmonella* spp. by recombination for use in evaluation of antimicrobial agents* - Karla Sequeira Mendonça, Wladimir Padilha da Silva, Bruce Applegate, Purdue University, USA  
 17:10–17:30 *Evaluation of probiotic properties of lactic acid bacteria isolated from water buffalo mozzarella cheese* - Ana Beatriz de Oliveira Jeronymo, Aline Teodoro de Paula, Luana Faria Silva, Ana Lúcia Barretto Penna, State University of São Paulo, Brazil  
 17:30–17:50 *Lipopolysaccharide structure and phenotype of *rfaD* knockout *Escherichia coli* mutant* - Jianli Wang, Ye Li, Feng Shi, Xiaoqing Hu, Xiaoyuan Wang, , Jiangnan University, China

09:00–12:30 **Food Science and Technology in Canada (next host of the World Congress)**

**Chairs:** Allan Paulson, AFM Canada, Inc., Canada  
Anne Goldman, ACCE International, Canada

09:00–09:30 *An overview of food research in Canada* - David Lineback<sup>1</sup>, Alastair Hicks<sup>2</sup>, <sup>1</sup>University of Maryland, USA, <sup>2</sup>Mae Fah Luang University, Thailand

09:30–10:00 *The legacy and impact of Shuryo Nakai on food science research in Canada and beyond* - Eunice C.Y. Li-Chan, University of British Columbia

10:00–10:30 *The future of high quality food dehydration* - Tim Durance, Enwave Corporation, Vancouver

**10:30–11:00 Coffee Break**

11:00–11:30 *Interaction of the antimicrobial peptide Protamine with bacterial membranes* - Tom Gill, Dalhousie University

11:30–12:00 *Overall food research portfolio at Agriculture and Agri-Food Canada* - Michèle Marcotte, Agriculture and Agri-Food Canada, Canada

12:00–12:30 *Maximizing the benefits of food bioactive ingredients and processing by-products* - Fereidoon Shahidi, Memorial University, Canada

14:30–18:00 **US Pharmacopeia Session: Harmonization of Standards in the Agro-food sector: challenges and opportunities**

**Chair:** Carla Mejia, US Pharmacopeia

14:30–15:00 *CODEX a basis for standard setting process around the world* - Diego Varela, Food Safety and Quality, FAO Regional Office for Latin America and the Caribbean

15:00–15:30 *The role of standards in a changing regulatory environment of importers and the WTO* - Markus Lipp, Director, Food Ingredients Standard US

15:30–16:00 *The truth and misunderstanding in food safety in China* - Junshi Chen, China National Centre for Food Safety Risk Assessment and ILSI Focal Point in China

**16:00–16:30 Coffee Break**

16:30–17:00 *Compendial testing standards role in the assurance of food ingredients quality and safety* - Carla Mejia, Scientific Liaison, USP

17:00–17:30 *Standards and innovation: the case of nutraceuticals* - Roger Clemens, CSO E.T. Horn Company

17:30–18:00 *Trading food globally: A Latin America perspective on the challenges presented by private food safety standards* - Jairo Romero International Food Safety Risk Management Consultant, Colombia

13:30-14:30 **Poster Session**

**Chairs:** Roseane Fett, Federal University of Santa Catarina, Brazil  
Juliano Lemos Bicas, Federal University of São João del Rei, Brazil

**Topics:** Food Security  
Nanotechnology  
Food Processing  
Food Engineering  
Food Packaging

**18:00–19:00 Poster Session**

**Chairs:** Maria Ines Sucupira Maciel, Federal Rural University of Pernambuco, Brazil  
Roger Wagner, Federal University of Santa Maria, Brazil

**Topics:** Food Security  
Nanotechnology  
Food Processing  
Food Engineering  
Food Packaging

Thursday | August 9, 2012

**09:00–12:30 Closing Plenary Session**

**Chairs:** Delia B. Rodriguez-Amaya and Rickey Yada  
Chairs, Scientific Committee

09:00–09:30 *Looking ahead: Beyond the 16<sup>th</sup> World Congress* - David Lineback, Past President, IUFoST

09:30–10:00 *Achieving food security for all* - Ezzedine Boutrif, Former Director, Nutrition and Consumer Protection Division, FAO, Rome

10:00–10:40 *“Business as unusual” for achieving global food and nutrition security - and hunger* - IUFoST Distinguished Lecturer Shenggen Fan, Director General, International Food Policy Research Institute (IFPRI), Washington DC

**10:40–11:00 Coffee Break**

11:00–11:20 *Young Scientist Lecture: Bioactive almonds protein hydrolysate fraction: Modulation of inflammatory response in activated macrophages* - Chibuike C. Udenigwe, University of Guelph, Canada

11:20–11:40 *Rapid detection of food contaminants using surface enhanced Raman spectroscopy (SERS)* - Lili He, University of Minnesota, USA

11:40–12:05 *Announcement of the XVIII Latin American Seminar of Food Science and Technology*  
*Announcement of the 17<sup>th</sup> World Congress of Food Science and Technology*

12:05–12:30 *Closing remarks* - Geoffrey Campbell-Platt, Glauca Maria Pastore

**15:00–17:00 IUFoST General Assembly**