



46th Annual AIFST Convention

# Yesterday, Today, Tomorrow

## program & abstracts

July 14–16 2013

Brisbane Convention and Centre,  
Brisbane, Queensland.



the Australian Institute of  
food science and technology  
incorporated

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# Welcome



Stepan von Schroellkamp  
- Convention Chairperson

The Queensland branch and the Council of the AIFST are pleased to welcome you to the 46th Annual AIFST Convention in Brisbane.

This year's motto is Yesterday, Today, Tomorrow - a time to reflect on the past, discuss the present and explore the future.

The Organising Committee and Technical Committee have worked tirelessly with our National Office team to develop a terrific scientific program covering diverse subject areas of relevance to our increasingly complex world of food science and technology. It offers views of the industry from the helicopter down and the ground up so that you will come away from the Convention fully informed and better equipped.

The AIFST Annual Convention is the key event in the Institute's calendar and it promotes the AIFST objectives of helping members to build their professional network and continue their professional development.

This year's convention will also see the transition from the present to the future, the hand-over of the AIFST Presidency from Jo Davey to Anne Astin.

We welcome you to the Convention.

## Convention Committee

Stepan von Schroellkamp - *Chair*  
Stewart Eddie - *Chair Technical Committee*  
Julie Flatz - *Treasurer*  
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## Disclaimer

Details are correct at time of printing. In the event of unforeseen circumstances, the organiser reserves the right to delete or alter items in the conference program.

## Social Media

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Find us on Facebook [www.facebook.com/AIFST.Inc](http://www.facebook.com/AIFST.Inc)  
Follow us on Twitter @AIFST  
Join our discussion group on LinkedIn  
When tweeting about the conference, please use #AIFST2013.



Jo Davey -  
AIFST President



Anne Astin -  
President Elect



## Making the most of milk

A37

CRITTENDEN, R.

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Milk is a marvellous material for food technologists to play with. Complex and nutritionally rich, it can be processed into a wealth of great tasting foods and versatile ingredients. Among the key technologies driving innovation in the dairy industry are membrane processes to separate milk components, and enzymes to modify structure and function. The use of these technologies in combination provides a powerful approach in the development of innovative dairy processes and products. By using membranes to remove some of the lactose before enzymatic hydrolysis, Valio's Zero-Lactose™ technology allows production of great tasting, low carbohydrate lactose-free milk. This technology has underpinned the development of Valio's Zero Lactose brand EiLa that now incorporates a \$200 million per year product range in northern Europe. The technology is additionally licensed to several dairy producers who have used it to claim leading market positions in lactose-free products. Valio also uses combinations of membrane separation techniques and the enzyme transglutaminase to modify protein networks using its ProVa™ technology. This new breakthrough technology substantially increases yields in yoghurts, fermented milks and cheese without compromising texture or flavour. Given the array of membranes and enzymes now available to separate and modify milk components, judicious choice of these combinations remains fertile ground for new product and process development.

## Technological strategies for designing food with improved safety and health profiles

A38

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Food safety and quality, consumers' health and production sustainability are the main key words that better describe the driving forces that are presently changing the market of processed foods in industrialised countries. The pressure of these emerging needs has highly stimulated scientific research in the food area, with the aim of finding suitable technological solutions able to deal with present consumers' expectations and future challenges. A huge number of technological strategies have been recently proposed in the literature. Among them, the most promising are those based on the search for affordable and environmental friendly novel technologies and those aiming to exploit the "physiological" ability of certain food components to form, under specified environmental conditions, peculiar architectures to be used in food design. Although in most cases they are conceptually very different, these strategies have a similar final goal, which is to obtain a programmed effect on the chemical or supra-molecular structures of target biomolecules. Depending on the target molecules and cell structures involved, these strategies may be pursued to improve the safety and quality profile of foods or allow the production of specific supra-molecular bricks to be used to build up foods with desired properties. The talk will present some case studies, most of them carried out at the Department of Food Science of the University of Udine (Italy), and addresses the development of affordable and environmentally friendly strategies able to act on specific target biomolecules such as proteins and lipids and contaminants.

## How can technology address consumer need for convenience

A39

RICHTER, T.

Multivac Australia, Keilor Park, VIC

*Abstract not available at the time of printing*

## The impact of the global financial crisis on consumer behaviour

A40

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Consumer behaviour is influenced by both internal characteristics and external factors that represent the environment in which the individual behaviour takes place. The recent Global Financial Crisis (GFC) is one such environmental influence that has had a strong impact on the behaviour of consumers. There has been much research undertaken into the impact of the GFC. The majority of studies are revealing that this crisis has had a severe impact on the spending patterns of consumers. Whilst the GFC can be seen predominantly as an external influence, the psychological influence on consumers is also paramount. The GFC has forced consumers to question their beliefs and attitudes towards purchasing. For companies, long-term strategies may be the key to future success. The marketing company that can treat and track the profound psychological changes in consumer behaviour may fare well as we move into post-recession times.





# Tuesday Program

JULY

Tue

16th

0630 – 0820	REGISTRATION OF DELEGATES		
0715 – 0845	<b>Innovation Breakfast</b> Chair: Russel Rankin Sponsored by Intellectual Ventures	Arbour A2	A32
0730 – 0750	<b>Innovation matters</b> Paul Levins, Intellectual Ventures ANZ,		A33
0750 – 0810	<b>Open innovation models</b> Alban Savage, Cochlear Ltd, Macquarie University, Sydney, NSW		
0810 – 0825	<b>AIFST Food Industry Innovation Award</b>	Boulevard B1 & B2	
0900 – 1035	<b>Session 1 - Concurrent 1</b> Chair: Trish Desmarchelier Foods for vulnerable populations - risk factors		A34
0905 – 0935	<b>Foodborne illness in vulnerable populations and risk factors</b> Martyn Kirk, Australian National University, Canberra, ACT		A35
0935 – 1005	<b>Use of bacteriophage to combat low level food contaminations</b> Steven Hagens, Mircos Food Safety, Wageningen, The Netherlands		A36
1005 – 1035	<b>Guidelines for food safety standards for vulnerable populations based on risk assessments</b> David Miles, NSW Food Authority, Newington, NSW		
0900 – 1035	<b>Session 1 - Concurrent 2</b> Chair: Cameron Turner Technology matters - what new technologies are needed to address today's problems?	Boulevard Auditorium	
0905 – 0935	<b>Making the most of milk</b> Ross Crittenden, Valio Ltd, Helsinki, Finland		A37
0935 – 1005	<b>Technological strategies for designing foods with improved safety and healthy profiles</b> Cristina Nicoli, University of Udine, Italy		A38
1005 – 1035	<b>How can technology address consumer need for convenience</b> Tobias Richter, Multivac Australia, Keilor Park, VIC		A39
0900 – 1035	<b>Session 1 - Concurrent 3</b> Chair: Janette McDonald Managing food innovation in challenging times Part 1 Session sponsored by Franke Hyland	Boulevard B3	
0905 – 0935	<b>The impact of the global financial crisis on consumer behaviour</b> Helen Perriman, Central Queensland University, North Rockhampton, QLD		A40
0935 – 1005	<b>Getting product positioned: interface between innovation and marketing</b> Ken Melia, Fear of Missing Out, Wakerley, QLD		A41
1005 – 1035	<b>WORK DIFFERENT: innovation services case studies</b> Allan Ryan, Hargraves Institute, Sydney, NSW		A42
1035 – 1110	<b>MORNING TEA - PROUDLY SPONSORED BY VCSCM</b>		