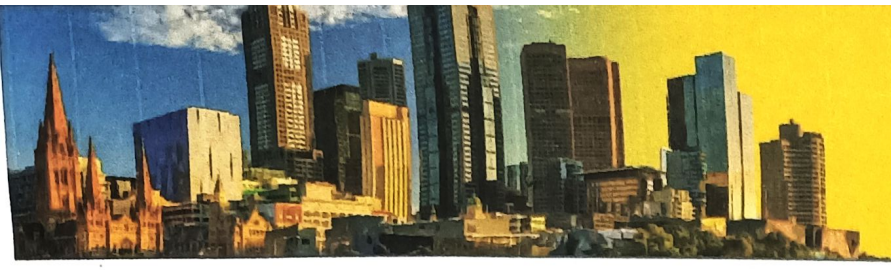

15th International Hydrocolloids Conference

2 – 5 March 2020
Melbourne, Australia

# Certificate of Presentation

**We hereby confirm that**

*Dr. Vilia Darma Paramita*

**Presented**

Modelling release behaviour of bioactives in high-solid food systems

**15th International hydrocolloids Conference**
**2 – 5 March 2020, Melbourne, Australia**

**Lizzy Birnie**
**For and on behalf of Elsevier Ltd**

# 15th International Hydrocolloids Conference

2–5 March 2020, Bayview Eden Melbourne Hotel, Melbourne, Australia

# PROGRAM

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Dear Friends and Colleagues,

Welcome to the 15th International Hydrocolloids conference.

As ever, the food industry is rapidly growing and evolving in response to consumer demands. With important issues such as the health impacts of food additives and processed food in general, as well as the environmental impact of food production being at the forefront of popular interest. In this context, it is no surprise that the application of hydrocolloids as functional ingredients for healthy formulations, nutraceuticals and plant-based products, continues to grow dramatically in its importance. We hope that this conference, as in the past, will promote collaboration between experts across the broad field of hydrocolloids and catalyse the translation of fundamental research to industrial application.

We are delighted to hold the conference in Melbourne for the second time, with the first being the 7th conference in 2004. Greater Melbourne is home to a burgeoning food sector. It is Australia's largest exporter of food products with exports soaring to $12 billion in 2014–2015. The main food export items include dairy ($2.3 billion), cereal ($2 billion), beef ($1.3 billion), sheep products ($2.5 billion), and fruits and nuts ($1.2 billion). The region supplies around 85% of Australia's dairy exports to countries such as China, Japan, Singapore, Indonesia, Philippines and Malaysia.

Innovation in food manufacture is supported by cutting-edge agri-food research facilities, including the Centre for AgriBioscience (AgriBio), CSIRO, DairyBio, Food Innovation Australia Limited (FIAL), and RMIT University's Food Research and Innovation Centre. Throughout the conference there will be ample opportunity to forge collaboration with members of these institutions, as well as a plethora of leading international researchers, at formal social times such as the welcome reception and conference banquet, as well as during breaks.

I would like to thank everyone that has worked tirelessly to organise this conference, the organising committee, the Food Hydrocolloids Trust, Elsevier and of course the wonderful speakers. We also respectfully acknowledge the Traditional Owners of the land, the Boon Wurrung and Woiwurrung (Wurundjeri) peoples of the Kulin Nation and pay respect to their Elders, past and present.

We look forward to a meeting that promises to be as enjoyable as it is scientifically stimulating and hope that you enjoy your visit to Melbourne.

Best wishes,
**Stefan Kasapis**
Conference chair
*RMIT University, Australia*

# Oral Program

| Sunday 1 March 2020 | |
|---|---|
| 17:00-19:00 | **Registration** \| Room: Parkside Foyer |
| 19:00-20:00 | **Welcome Reception** \| Room: Parkside 1 & 2 |

| Monday 2 March 2020 | | |
|---|---|---|
| 09:00-10:00 | **Registration** \| Room: Parkside Foyer | |
| 10:00-10:30 | **Refreshment Break** \| Room: Parkside 1 & 2 | |
| Room: Parkside 4 & 5 | | |
| 10:30-10:50 | **Opening Address** | |
| | **Session chair** – Prof. Stefan Kasapis | |
| 10:50-11:35 | **[PL.01] Tailoring milk protein functionality**<br>Prof. Todor Vasiljevic, *Victoria University, Australia* | |
| 11:35-12:20 | **[PL.02] New plant proteins for sustainable and healthy foods**<br>Dr. Roman Buckow, *CSIRO, Australia* | |
| 12:20-13:20 | **Lunch** \| Room: Parkside 1 & 2 | |
| Room: Parkside 4 & 5 | | |
| | **Session chair** – Prof. Todor Vasiljevic | |
| 13:20-14:05 | **[PL.03] Trends towards healthy and natural foods; challenges in UHT beverage products**<br>Prof. John Ashton, *Sanitarium Health and Wellbeing Company, Australia* | |
| 14:05-14:35 | **[KN.01] Power ultrasound: Implications for improving hydrocolloids functionalities**<br>Assoc. Prof. Asgar Farahnaky, *RMIT University, Australia* | |
| Rooms: | Parkside 4 & 5 | Parkside 3 |
| | **Session 1** – Industrial collaboration<br>**Session chair** – Prof. John Ashton | **Session 2** – Rheology of emulsions, suspensions and pastes<br>**Session chair** – Prof. Shingo Matsukawa |
| 14:40-15:00 | **[O1.01] Hierarchical architecture of cellulose and its interaction with other plant cell wall polysaccharides** | **[O2.01] Role of amylose and amylopectin in high viscosity paste of maize starch with lipid during extended pasting** |
| 15:00-15:20 | **[O1.02] Acetylation of intact starch in white rice alters physicochemical properties** | **[O2.02] Lubrication of emulsions: Insights for the oral processing of foods** |
| 15:20-15:40 | **[O1.03] Optimizing starch thickening behavior for formulation success in salad dressings** | **[O2.03] Rheology and structure of nanocrystalline cellulose aqueous suspensions** |
| 15:40-16:00 | **[O1.04] Endogenous thermostable proteinaceous α-amylase inhibitors slow starch digestion in pasta** | **[O2.04] Molecular structure, emulsifying and gelling ability of pectin extracted from different hawthorn varieties** |
| 16:00-17:30 | **Poster Session** \| Room: Parkside 1 & 2 | |

| Tuesday 3 March 2020 | | | |
|---|---|---|---|
| 08:30-09:00 | **Refreshment Break** \| Room: Parkside 1 & 2 | | |
| Room: Parkside 4 & 5 | | | |
| | **Session chair** – Dr. Vassilis Kontogiorgos | | |
| 09:00-09:45 | **[PL.04] How to use the characteristics of hydrocolloids to tailor food functionality**<br>Prof. Elke Scholten, *Wageningen University, Netherlands* | | |
| 09:45-10:15 | **Refreshment Break** \| Room: Parkside 1 & 2 | | |
| Rooms: | Parkside 4 | Parkside 5 | Parkside 3 |
| | **Session 3** – Hydrocolloids as structural materials for the controlled release of bioactives - Release properties and analysis<br>**Session chair** – Prof. Harjinder Singh | **Session 4** – Characterization, structure and function of natural and modified hydrocolloids - Polysaccharides 1<br>**Session chair** – Prof. Alan Smith | **Session 5** – Soluble and insoluble dietary fibre - Physiological benefits<br>**Session chair** – Principal Investigator Amy (Hui-Mei) Lin |

| | | | |
|---|---|---|---|
| 10:15-10:45 | **[KN.02] Pectin at the oil-water interface: Arrangement, anchoring, and modes of adsorption**<br>Dr. Vassilis Kontogiorgos, *The University of Queensland, Australia* | **[KN.03] Network structures in polysaccharide gels viewed from microscopic and macroscopic aspects**<br>Prof. Shingo Matsukawa, *Tokyo University of Marine Science and Technology, Japan* | **[KN.04] The importance of physical form of dietary fibers to a healthy gut microbiota**<br>Prof. Bruce Hamaker, *Purdue University, USA* |
| 10:45-11:05 | **[O3.01] Overcoming absorptive barriers of nutraceuticals using food-grade delivery systems** | **[O4.01] Functional properties of pregelatinized and cold-water swelling starches in the presence of other food compounds** | **[O5.01] Composition and nutritional functionality of wheat endosperm cell walls** |
| 11:05-11:25 | **[O3.02] Controlled release of natural bioactive compounds from a moving boundary of genipin-crosslinked WPI matrices** | **[O4.02] Structure and functionality of red algal polysaccharides** | **[O5.02] Mechanisms underpinning lipid-reducing properties of soluble dietary fibres** |
| 11:25-11:45 | **[O3.03] Cross-linked casein micelle hydrogel as nanocarrier for jaboticaba *(Myrciaria cauliflora)* extract: Release properties and protection against UV-light exposure** | **[O4.03] The importance of surface attributes on bulk and functionality performance of starch granules** | **[O5.03] Exploring the degradation of plant cell wall fibers by *in vitro* fermentation with human faecal inoculum** |
| 11:45-12:05 | **[O3.04] Co-delivery of curcumin and resveratrol in zein nanostructures integrated in 3D printed gelatin: Formulation, printability, stability and in vitro gastrointestinal studies** | **[O4.04] High-amylose wheat flour as a functional food ingredient** | **[O5.04] Interaction of polyphenols with soluble dietary fibres** |
| 12:05-12:25 | **[O3.05] Egg white and whey protein gel structures for controlled digestion and release** | **[O4.05] Characterization of structural and physicochemical properties of chemically modified wheat starch to be used as a depressant during mineral flotation** | **[O5.05] Solvent extraction and degumming of Crotalaria juncea seeds: Physicochemical and rheological characterization of a Natural Gum** |
| **12:25-13:30** | **Lunch** \| Room: Parkside 1 & 2 | | |
| Rooms: | Parkside 4 | Parkside 5 | Parkside 3 |
| | **Session 6** – Hydrocolloids for stabilisation of emulsions and foams 1<br>**Session chair** – Dr. Vassilis Kontogiorgos | **Session 7** – High-solid hydrocolloid systems and the glass transition<br>**Session chair** – Dr. Heather Shewan | **Session 8** – Isolation, characterizations and health implications of bioactive polysaccharides 1<br>**Session chair** – Dr. Sushil Dhital |
| 13:30-13:50 | **[O6.01] Interfacial engineering of oil-in-water emulsions with pectin** | **[O7.01] Modelling release behaviour of bioactives in high-solid food systems** | **[O8.01] Biological activities of enzymatically degraded polysaccharides from red algae** |
| 13:50-14:10 | **[O6.02] Interfacial structures and functional performance of droplet-stabilized emulsions formed with protein particles** | **[O7.02] Genipin crosslinking in biopolymer matrices for improved structural properties in relation to natural bioactive compound diffusion** | **[O8.02] Starch molecular order in processed foods affects digestibility in humans** |
| 14:10-14:30 | **[O6.03] Pea protein particles as stabilisers of oil-in-water emulsions** | **[O7.03] Mechanical transformation of two different molecular weights of gelatin in a high-solid environment** | **[O8.03] Biophysical insights into formation and prevention of amyloid hydrocolloids: Implications in neurodegenerative diseases** |
| 14:30-14:50 | **[O6.04] The addition of chitosan for improving the stability of rice husk silica stabilized w/o/w double emulsion** | **[O7.04] Effect of structural properties and activities on polysaccharides from Hericium erinaceus mycelia and fruiting bodies by ARTP mutagenesis and its molecular mechanism** | **[O8.04] Improving oral bioavailability of coenzyme Q10: From edible nanoemulsion to functional food** |
| **14:50-15:20** | Refreshment Break \| Room: Parkside 1 & 2 | | |

| Rooms: | Parkside 4 | Parkside 5 | Parkside 3 |
|---|---|---|---|
| | **Session 9** – Effects of hydrocolloids on oral processing and tribology<br>**Session chair** – Dr. Tuyen Truong | **Session 10** – Hydrocolloids as structural materials for the controlled release of bioactives<br>**Session chair** – Dr. Vilia Paramita | **Session 11** – Characterization, structure and function of natural and modified hydrocolloids - Plant based polysaccharides<br>**Session chair** – Dr. Purnima Gunness |
| 15:20-15:40 | **[O9.01] Influence of matrix phase viscosity on in-mouth detectability of hydrocolloid based micro hydrogels** | **[O10.01] Generation of mucin gel particles with self-degradable and -releasable properties** | **[O11.01] Probing lipid oxidation in food emulsions with correlative imaging workflows** |
| 15:40-16:00 | **[O9.02] A dynamic tribology protocol: Measuring friction response of dairy proteins on human saliva pellicle, validated against sensory perception** | **[O10.02] Drug partitioning in colloidal self-assemblies: Correlation of structure-property-energetics relationships** | **[O11.02] Effects of pulsed electric field time on the pasting and texture properties of wheat starch** |
| 16:00-16:20 | **[O9.03] Tribology of model food particles paired with tongue-textured surfaces** | **[O10.03] Nanoencapsulation of β-carotene in β-cyclodextrin/k-carrageenan/protein by a modified spray drying process** | **[O11.03] Design of a pH-responsive hydrogel for orally controlled release of bioactive peptides** |
| 16:20-16:40 | **[O9.04] Impact of food processing on the rheological and tribological properties of plant cells and derived polysaccharides** | **[O10.04] Additive manufacturing of edible and printable hydrogels containing vitamin B1** | **[O11.04] Chemical and functional properties of pectin extracted from Passiflora edulis f. edulis (purple passion fruit) peel by microwave-assisted heating** |
| 16:40-17:00 | **[O9.05] Effect of red wine matrix and salivary proteins on oral tribology** | **[O10.05] Customisable β-casein nanocarriers through protein genetic variant selection enables tuneable drug binding and release properties** | **[O11.05] Immunomodulatory effect of bioactive mushroom polysaccharides isolated from *Polyporus rhinoceros*** |
| 17:00-17:20 | **[O9.06] Flavour distribution and release from gelatine-starch matrices** | **[O10.06] Assessment of various food proteins as structural materials for delivery of hydrophobic flavonoids** | **[O11.06] Phase diagram and rheological properties of formulation prepared with alkylpolyglucosides and Melaleuca alternifolia (tea tree) oil** |

| **Wednesday 4 March 2020** | | |
|---|---|---|
| **08:30-09:00** | **Refreshment Break** \| Room: Parkside 1 & 2 | |
| Room: Parkside 4 & 5 | | |
| | **Session chair** – Prof. Bruce Hamaker | |
| **09:00-09:45** | **[PL.05] Molecular architecture and mechanical properties of plant cell walls and polysaccharide composite models**<br>Prof. Mike Gidley, *University of Queensland, Australia* | |
| **09:45-10:30** | **[PL.06] Trends in bioactive polysaccharides research**<br>Prof. Steve W. Cui, *Agriculture and Agri-Food, Canada* | |
| **10:30-11:00** | **Refreshment Break** \| Room: Parkside 1 & 2 | |
| Rooms: | Parkside 4 & 5 | Parkside 3 |
| | **Session 12** – Characterization, structure and function of natural and modified hydrocolloids - Emulsions/ phase separation<br>**Session chair** – Dr. Elliot Gilbert | **Session 13** – Structural properties and novel functionality of mixed hydrocolloid systems - Application in systems<br>**Session chair** – Prof. Steve Cui |
| **11:00-11:30** | **[KN.05] Structure and emulsion properties of corn fiber gum and starch octenylsuccinate**<br>Prof. Yong Cheng Shi, *Kansas State University, USA* | **[KN.06] Starch digestion in young children**<br>Principal Investigator Amy (Hui-Mei) Lin, *Agency for Science, Research and Technology (A*STAR), Singapore* |
| **11:30-11:50** | **[O12.01] Manipulation of water droplet size and food hydrocolloids in structuring novel water-in-oleogel system** | **[O13.01] Application of Raman microscopy to study the influence of hydrocolloids on the structure of dairy matrices** |

| | | |
|---|---|---|
| 11:50-12:10 | [O12.02] Thermodynamic incompatibility between milk proteins and oat polysaccharides | [O13.02] Molecular features of cell wall and middle lamella polysaccharides critically determine the functionality of bean flours |
| 12:10-12:30 | [O12.03] Quantitative phase volume estimation of agarose-ghee gels using 3D confocal laser scanning microscopy and blending law analysis: A comparison | [O13.03] Structural characterization of interpenetrating network of high acyl gellan and maltodextrin mixed gels |
| 12:30-12:50 | [O12.04] A rheological test and application of a window of dimensional stability for screening food inks with stable structures for 3D printing | [O13.04] Beef texture modification with hydrocolloids for people with dysphagia |
| 12:50-13:50 | **Lunch** \| Room: Parkside 1 & 2 | |
| Rooms: | Parkside 4 & 5 | Parkside 3 |
| | **Session 14** – Structural properties and novel functionality of mixed hydrocolloid systems - Emulsion-based mixed hydrocolloid systems<br>**Session chair** – Prof. Elke Scholten | **Session 15** – Soluble and insoluble dietary fibre - Molecular characteristics<br>**Session chair** – Prof. Mike Gidley |
| 13:50-14:10 | [O14.01] The behaviour of sunflower oleosomes at the interfaces | [O15.01] Molecular interactions between β-lactoglobulin and vanillic acid under neutral and acidic pH conditions |
| 14:10-14:30 | [O14.02] Viscoelastic properties and stability of O/W emulsions as affected by basil seed gum, xanthan gum and locust bean gum interaction | [O15.02] Utilization of wheat germ oil and wheat bran fibre as fat replacer for the development of functional beef patties |
| 14:30-14:50 | [O14.03] The effect of gel structure on the *in vitro* gastric digestion of protein-polysaccharide emulsion gels | [O15.03] How dietary fibres in complex plant foods are fermented *in vitro* |
| 14:50-15:10 | [O14.04] Partitioning and release of anticancer drugs in colloidal nonionic surfactant vesicles niosomes: Mechanistic insights | [O15.04] Structural-prebiotic properties relationship for glucose oxidase and pentosanase modified wheat arabinoxylan |
| 15:10-15:40 | **Refreshment Break** \| Room: Parkside 1 & 2 | |
| Rooms: | Parkside 4 & 5 | Parkside 3 |
| | **Session 16** – Hydrocolloids as structural materials for the controlled release of bioactives - Structural changes governing release<br>**Session chair** – Felicity Whitehead | **Session 17** – Hydrocolloid applications to meet the specific needs of multiple industrial uses 1<br>**Session chair** – Asst. Prof. Mario Martinez |
| 15:40-16:00 | [O16.01] 3D printing complex biopolymer gel structures using suspended layer additive manufacturing (SLAM) | [O17.01] Effects of using low frequency ultrasound treated milk protein mixtures on the functionality modifications of secondary dairy products |
| 16:00-16:20 | [O16.02] Structural and diffusion characteristics of low-solid hot moulded alginate gel systems | [O17.02] Dried whey protein fractal aggregates for substituing texturizing additives in dairy products |
| 16:20-16:40 | [O16.03] Mimicking lipid self-assembly in digesting milk-like emulsions | [O17.03] Influence of lactose pre-crystallization towards 'fat-bridging' in infant formula powders |
| 16:40-17:00 | [O16.04] High temperature induced structural changes of apo-lactoferrin and its interaction with beta-lactoglobulin and alpha-lactalbumin for potential encapsulation strategies | [O17.04] Characterization of the mixed gel from ovalbumin and sodium caseinate in the presence of glucono delta lactone |
| 19:00-22:00 | **Conference Dinner** \| Room: Parkside 4 & 5 | |

## Thursday 5 March 2020

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|---|---|
| 08:30-09:00 | **Refreshment Break** \| Room: Parkside 1 & 2 |
| Room: Parkside 4 & 5 | |
| | **Session chair** – Assoc. Prof. Asgar Farahnaky |
| 09:00-09:45 | [PL.07] Electrospinning of polysaccharides<br>Prof. Gregory R. Ziegler, *Penn State University, USA* |
| 09:45-10:30 | [PL.08] Biopolymer interactions during gastric digestion: New approaches to controlling bioaccessibility and health impacts<br>Prof. Harjinder Singh, *Massey University, New Zealand* |
| 10:30-11:00 | **Refreshment Break** \| Room: Parkside 1 & 2 |

| Rooms: | Parkside 4 & 5 | Parkside 3 |
|---|---|---|
| | **Session 18** – Characterization, structure and function of natural and modified hydrocolloids 1<br>**Session chair** – Dr. Mahsa Majzoobi | **Session 19** – Characterization, structure and function of natural and modified hydrocolloids 2<br>**Session chair** – Prof. Gregory R. Ziegler |
| 11:00-11:20 | [O18.01] Multilayer coating composed of *Eryngium campestre L.* essential oil encapsulated in nano-chitosan to prolong the shelf-life of fresh cherry fruits | [O19.01] Modified pomelo pectin via electron beam and its potential application as a prebiotic |
| 11:20-11:40 | [O18.02] Polysaccharide-based hydrogels with self-healing and on-demand dissolving ability | [O19.02] Characterization, rheological properties, and health-promoting benefits of the exopolysaccharide produced by novel probiotic *Lactococcus garvieae* C47 isolated from camel milk and its impact on the rheological behavior of fermented camel milk |
| 11:40-12:00 | [O18.03] Physicochemical and functional properties of almond protein isolate as a function of extraction conditions and solution pH | [O19.03] Analysis of the degradation and utilisation of plant cell wall polysaccharides by human gut microbiota |
| 12:00-12:20 | [O18.04] Whey protein isolate bioactive peptide stabilised nanoemulsion | [O19.04] Physicochemical and thermal properties of edible films prepared from camel skin gelatin plasticized with glycerol and sorbitol |
| 12:20-13:20 | **Lunch** \| Room: Parkside 1 & 2 | |
| Rooms: | Parkside 4 & 5 | Parkside 3 |
| | **Session 20** – Hydrocolloid applications to meet the specific needs of multiple industrial uses 2<br>**Session chair** – Dr. Jayani Chandrapala | **Session 21** – Hydrocolloids for stabilisation of emulsions and foams 2<br>**Session chair** – Asst. Prof. Yuuka Fukui |
| 13:20-13:40 | [O20.01] Revealing the driving components of red wine mouthfeel by tribology approaches | [O21.01] Interfacial rheology and stability of air bubbles stabilised by Chaplin E peptide; A comparison with β-lactoglobulin and β-casein |
| 13:40-14:00 | [O20.02] Molecular interactions between b-casein and phenolic acids under ultra-high temperature conditions | [O21.02] Designing W/O/W double emulsions stabilized by casein-whey protein complexes using low frequency ultrasound |
| 14:00-14:20 | [O20.03] Off flavour development in UHT beverages incorporating faba bean protein | [O21.03] Curcumin-loaded emulsion as a delivery vehicle for the photosensitization of fresh foods |
| 14:20-14:40 | [O20.04] Cellulose moisture content minimization through a combined physico-chemical treatment | [O21.04] Formulation and development of alginate micro-beads containing self-micro-emulsifying drug delivery system of flavonoids |
| 14:40-15:10 | **Refreshment Break** \| Room: Parkside 1 & 2 | |
| Rooms: | Parkside 4 & 5 | Parkside 3 |
| | **Session 22** – Characterization, structure and function of natural and modified hydrocolloids - Proteins<br>**Session chair** – Lloyd Condict | **Session 23** – Isolation, characterizations and health implications of bioactive polysaccharides 2<br>**Session chair** – Prof. Yong Cheng Shi |
| 15:10-15:30 | [O22.01] Low frequency ultrasound-assisted modification of lupin protein isolate | [O23.01] Structural and physicochemical properties of native starches and non-digestible starch residues from Korean rice cultivars with different amylose contents |
| 15:30-15:50 | [O22.02] Not sequentially but simultaneously: Facile extraction of proteins and oleosomes from oilseeds | [O23.02] Enzyme industry by-product as a sustainable source of hydrocolloids |
| 15:50-16:10 | [O22.03] The effect of protein purification processes on the functional bulk behaviour of yellow pea fractions | [O23.03] Improvement of foaming and emulsification properties of coconut (*Cocos Nucifera L.*) protein by Non-enzymatic deamidation |
| 16:10-16:30 | [O22.04] Structural characteristics and immunological activity *in vitro* of polysaccharide isolated from the fermented mycelium of dominant *Hericium erinaceum* strains by hybrid breeding | [O23.04] Structure and conformation characterization of polysaccharide from *Ganoderma lucidum* and the structure-activity relationship on immunoregulation |
| 16:30-16:50 | [O22.05] Tea residue derived double network hydrogel as fast adsorbent for Cr (III), Pb(II) and Fe(III) removal in complex water environment | [O23.05] Measurement and characterization of supramolecular in heat and pressure treated maize starch granule under similar degree of gelatinization |

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|---|---|
| Room: Parkside 4 & 5 | |
| 16:50-17:00 | Conference Close |

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Bayview Eden Melbourne Hotel, Melbourne, Australia

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## Plenary Speakers

**Professor John Ashton,**
Sanitarium Health and Wellbeing Company, Australia

**Talk Title:** Trends towards healthy and natural foods; challenges in UHT beverage products

**Dr. Roman Buckow,**
CSIRO People, Australia

**Talk Title:** New plant proteins for sustainable and healthy foods

**Professor Steve W. Cui,**
Agriculture and Agri-Food Canada

**Talk Title:** Trends in bioactive polysaccharides research

**Professor Mike Gidley,**
University of Queensland, Australia

**Talk Title:** Molecular architecture and mechanical properties of plant cell walls and polysaccharide composite models

**Professor Elke Scholten,**
Wageningen University, Netherlands

**Talk Title:** How to use the characteristics of hydrocolloids to tailor food functionality

**Professor Harjinder Singh,**
Massey University, New Zealand

**Talk Title:** Biopolymer interactions during gastric digestion: New approaches to controlling bioaccessibility and health impacts

**Professor Todor Vasiljevic,**
Victoria University, Australia

**Talk Title:** Tailoring milk protein functionality

**Professor Gregory R. Ziegler,**
Penn State University, USA

**Talk Title:** Electrospinning of polysaccharides

## Keynote Speakers

**Associate Professor Asgar Farahnaky,**
RMIT University, Australia

**Talk Title:** Power ultrasound: Implications for improving hydrocolloids functionalities

**Professor Bruce Hamaker,**
Purdue University, USA

**Talk Title:** The importance of physical form of dietary fibers to a healthy gut microbiota

**Dr. Vassilis Kontogiorgos,**
The University of Queensland, Australia

**Talk Title:** Pectin at the oil-water interface: Anchoring and modes of adsorption

**Principal Investigator Amy (Hui-Mei) Lin,**
Agency for Science, Research and Technology (A*STAR), Singapore

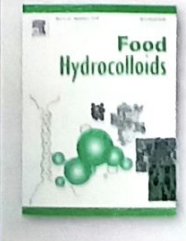
**Talk Title:** Starch digestion in young children

**Professor Shingo Matsukawa,**
Tokyo University of Marine Science and Technology, Japan

**Talk Title:** Network structures of polysaccharide gels viewed from microscopic and macroscopic aspects

**Professor Yong Cheng Shi,**
Kansas State University, USA

**Talk Title:** Structure and emulsion properties of corn fiber gum and starch octenylsuccinate





The conference will be supported by two special issues to be published in **Food Hydrocolloids** and **Bioactive Carbohydrates and Dietary Fibre**.

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