AIFST21
FOOD SCIENCE
DELIVERING IN A CHANGING WORLD

Tuesday 12th October 2021

DAY 2: HEALTH, NUTRITION & CONSUMER SCIENCE

09:00 – 09:45 AM	**K3 - KEYNOTE ADDRESS:** 2021 GLOBAL FOOD AND DRINK TRENDS *Shelley McMillan, Mintel*
09:45 – 10:15 AM	**K4 - KEYNOTE ADDRESS:** ON A MISSION TO GROW AUSTRALIA'S PROTEIN INDUSTRY - HOW SCIENCE AND TECHNOLOGY CAN SUPPORT INDUSTRY *Michelle Colgrave, CSIRO*
11:00 – 12:30 PM	**2.1 - NUTRITION SCIENCE FOR FUTURE FOODS**
1:00 – 2:30 PM	**2.2 - DELIVERING HEALTH & NUTRITION** *Supported by: University of Canberra*
3:00 - 4:30 PM	**2.3 - CONSUMER & SENSORY SCIENCE** *Presented by: the AIFST Consumer & Sensory Science Special Interest Group*

PRESENTATION & SPEAKER BIOS

K3 & K4 | KEYNOTE SPEAKERS

Shelley McMillan

Head of Consulting - South APAC, Mintel

Topic: 2021 Australian Food & Drink Trends

About:

Shelley joined the Mintel Consulting team in 2017, prior to this she worked at Nestl , General Mills and Associated British Foods in marketing, managing brand strategy and new product launches across multiple markets. Working at Mintel combines her 2 passions the food & drink industry (she is a qualified food technologist) and consumer behaviour, most recently completing post-grad in Behavioural Economics. At Mintel, she is responsible for the South APAC region, leading a team who create customised consulting projects around client's strategic innovation objectives.

Presentation Overview:

Food and drink companies will broaden their focus on mental wellbeing solutions, deliver on new value needs, and use brands to celebrate people's identities.

Professor Michelle Colgrave

Future Protein Mission Leader, CSIRO

Topic: A mission to grow Australia's protein industry – How science and technology can support industry growth

About:

Professor Michelle Colgrave is the Leader of CSIRO's Future Protein Mission. The Future Protein Mission is centred on principles of sustainable growth delivering high quality, affordable and nutritionally optimised protein for Australia. It will develop protein-based industries (including plant-based protein, traditional protein, insect and microbial protein) along the value chain from production to the customer, delivering premium protein ingredients and products, addressing the rapid growth of the protein-based sector.

Presentation Overview:

Estimates predict that 70 per cent more food will be required to feed the growing global population which will reach 9.7 billion by 2050. The challenge will be how to meet this global food gap while maintaining our planet's health. Australia's traditional animal and plant protein offer an opportunity to address this gap, with emerging sources of protein seen as complementary. We are witnessing changing dietary patterns, with increasing numbers of flexitarians, due to concerns over the environment, animal welfare and personal health and nutrition. In this presentation, the opportunities and challenges in growing Australia's protein industries will be discussed.

2.1 | NUTRITION SCIENCE FOR FUTURE FOODS

Andrew Holmes

Associate Professor, University of Sydney

Topic: What our microbiome means for validating and regulating foods-for-health

About:

Andrew has general interests understanding the role of microbial communities in both human and environmental health. He has particular interests in the relationship between the availability of food in the environment, how this shapes the health and behaviour of animals and the role of gut microbes in influencing these outcomes. This has applications for conservation biology, animal production and in humans both public health and health interventions.

His current research focusses on the mechanisms of host-microbe interaction in the gut and development of modelling tools that enable the prediction of intervention outcomes or development of regulations. He is in the School of Life and Environmental Sciences at the University of Sydney where he is also Microbiome Project node leader in the Charles Perkins Centre, and Co-leader of the Food for Health theme of the Centre for Advanced Food Enginomics. He is a Fellow of Food Standards, Australia, New Zealand (FSANZ) and Editor-in-Chief, Reviews for The ISME Journal.

Emma Beckett

Lecturer, University of Newcastle

Topic: Shifting paradigms in Nutrition Science for the Future

About:

Dr Emma Beckett has a multi-faceted research background, with qualifications and experience in nutrition, epidemiology, science management, biomedical sciences, immunology and microbiology. Emma completed her PhD, in 2016, as a joint project between the Faculty of Science at the University of Newcastle and the CSIRO Food and Nutrition Flagship.

Emma is interested in interactions and molecular nutrition, including gene-nutrient interactions. This involves the study of both how genetic variance alters the bodies responses to nutrition (nutrigenetics), and how nutrients influence gene expression (nutrigenomics) via direct interactions and modification of epigenetic marks. She hopes to unravel how our genes and nutrients interact to modify our risk of chronic and later-life-onset diseases.

She is also interested in how diet and genetics influence the microbiome in the gastrointestinal tract to predisposed to, or protect us from, diseases linked to diet and lifestyle such as colorectal cancer.

2.1 | NUTRITION SCIENCE FOR FUTURE FOODS

Melissa Adamski

Nutrition and science communicator, Dietitian, Monash University

Topic: Communicating food and nutrition information in the online era

About:

I am a highly accomplished and experienced healthcare business professional. I have a passion for making a difference at a macro level and believe this can be no better achieved through the merging of successful business with successful healthcare practice. I have a unique insight in that I have both practical and academic training in healthcare, and experience in leading businesses within the healthcare sector. This unique coupling along with my drive and obvious passion allows me to help solve some of the most challenging of business problems.

While many dietitians study an undergraduate food science & nutrition degree as an entry to dietetics, my approach was not one of necessity but rather a deliberate choice to gain a solid foundation in food regulation, safety, microbiology, chemistry and product development prior to building upon this through a Masters of Nutrition and Dietetics.

I complement my expertise in nutrition, dietetics and food science with strong analytical, problem solving and research skills. Coupled with my extensive experience in project and stakeholder management, strong verbal and written presentation skills and a flair for creativity and innovation, I strive to be an evidence based, yet open-minded dietitian who not only provides expert nutrition advice- but most importantly of all- continues to advance nutrition practice to

2.1 | NUTRITION SCIENCE FOR FUTURE FOODS

Dr Lisa Newman

Lecturer, *RMIT University*

Topic: How do Australians feel about insects a food source?

About:

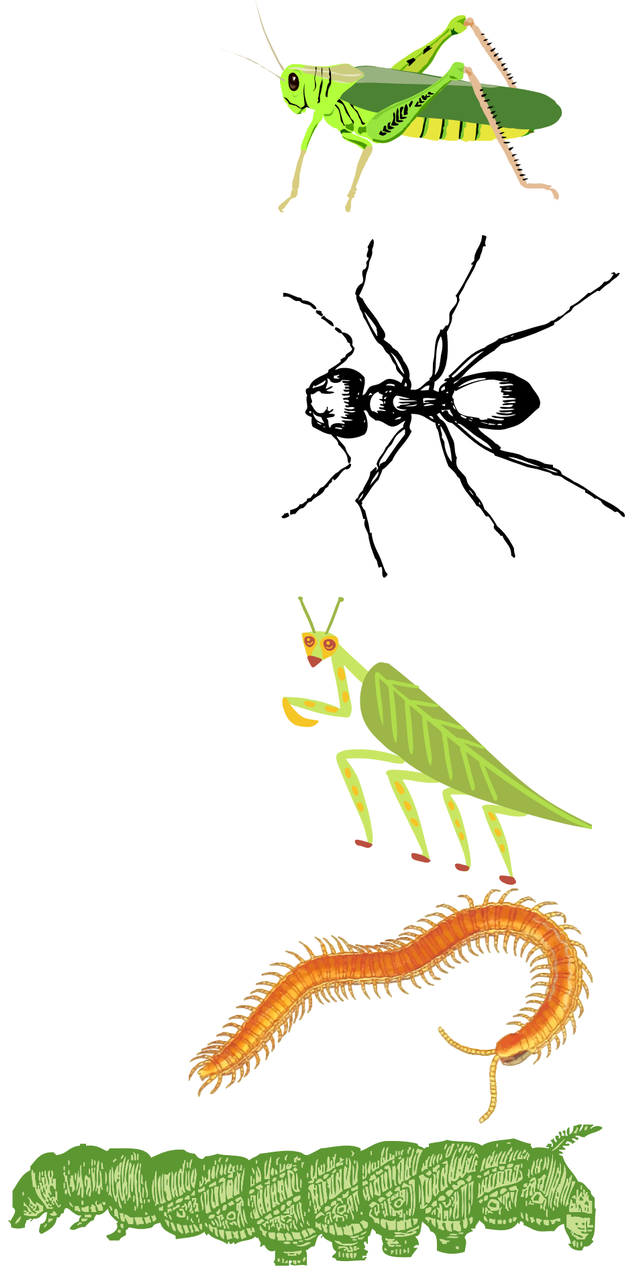
Dr Lisa Newman is a lecturer and academic at RMIT University. Lisa has a background in nutrition and food science, specifically sensory science. She completed her PhD at Deakin University where she specialised in understanding individual variation in how we perceive ‘fat taste’ and how it links with our dietary intake.

Lisa is interested in how the senses and consumer perceptions affect food selectivity, dietary behaviours, appetite and nutritional quality of our diets. Of interest are sustainable foods and alternative protein sources, including understanding Australian consumer perceptions and barriers to the consumption of edible insects.

In addition, Lisa is also interested in the dietary behaviours of toddlers, specifically how their food preferences develop during childhood, and how sensory play may have a role in curbing fussy eating. She is also interested in multisensory flavour perception and consumer choice behaviour including the use of digital technologies.

Presentation overview:

A combination of an expanding global population and changing dietary preferences has led to a required need to increase food production, specifically animal-based protein. Constrained by limitations on the finite resources required in animal-based food production, finding an alternative solution is paramount. Edible insects are a viable solution as they are both nutritious and sustainable. Despite a rich history in parts of the world, Australians have been reluctant to adopt the practice. Understanding the Australian consumer and their barriers and perceptions towards consuming insects as food, is essential to gain greater acceptance of insects as an alternative, more sustainable protein source, and motivate future consumption.



2.2 | DELIVERING HEALTH & NUTRITION

A/Prof Nenad Naumovski

Associate Professor in Food Science and Human Nutrtion

Topic: General overview of nutraceuticals in anxiety and stress

About:

Dr Nenad Naumovski (PhD, MAIFST) is a Chef, Food Scientist and Molecular Nutritionist and works at the University of Canberra (ACT, Australia) as Associate Professor in Food Science and Human Nutrition. He leads a Functional Foods and Nutrition Research Laboratory (FFNR Laboratory) and holds academic conjoint positions as the Visiting Professor at the Harokopio University of Athens (Athens, Greece), Abertay University (Scotland) and University of Newcastle (Australia). Nenad has a strong research interest in the development of functional foods and the effects of food and nutrients on psycho-cardiological markers associated with healthy ageing.

Dr Wolfgang Marx

Postdoctoral Research Fellow, Deakin University

Topic: Diet and Depression: Suggested biological mechanisms of action

About:

Dr Wolfgang Marx is a joint Alfred Deakin and Multiple Sclerosis Research Australia postdoctoral research fellow and Head of the Nutraceutical Research stream at the Food & Mood Centre. Wolfgang is also a dietitian and an honorary research fellow at The Florey Institute of Neuroscience and Mental Health, La Trobe University, and Bond University. Wolfgang's current research program covers a broad range of projects involving the use nutraceuticals for mental health, fatigue, and cognition. Of particular interest is the role of polyphenols – compounds found abundantly in spices, fruits, and vegetables – in brain health and the gut microbiome.

Dr Matina Kouvari

Postdoctoral Researcher, Discipline of Nutrition and Dietetics, Faculty of Health, University of Canberra

Topic: Adhering to the Mediterranean Diet and psycho-cardiological outcomes.

About:

Dr. Matina Kouvari (F), MSc, PhD is a Research Associate in Epidemiology at HUA and a Postdoctoral Researcher at the Faculty of Health in University of Canberra. She holds a BSc in Nutrition & Dietetics from HUA and an MSc (hons) in Clinical Nutrition from HUA. Her PhD thesis (2017-2020) was related with CVD epidemiology and risk prediction models while she is currently implementing her postdoctoral research on issues related with nutrition and metabolic syndrome. Dr Kouvari has more than 40 publications in international journals and about 100 scientific presentations in CVD and public health national and international congresses. She has participated in various international projects (two (2) H2020, six (6) Erasmus+, one (1) DG SANTE) in the field of public health and personalized nutrition. Over the last 5 years she is working as Research Associate and Project Manager in the Institute of Preventive Medicine, Environmental and Community Health (Prolepsis) with an active role in research and educational activities related to public health issues.

Presentation overview:

This presentation will outline the evidence base around dietary supplements and nutraceuticals, and whether they are useful for the prevention of dementia and cognitive decline. A wide range of nutrients and plant bioactive have been evaluated for their effects on cognitive function including B-vitamins, omega-3 fatty acids, and curcumin. But, to date, the evidence has been mixed at best. I will present what we know so far and where research and industry may be headed next.

Dr Nathan D'Cunha

Associate Lecturer, University of Canberra

Topic: Nutrition and the brain

About:

Mr Nathan D’Cunha is an Associate Lecturer in the Discipline of Nutrition and Dietetics at the University of Canberra. Nathan has completed Bachelor of Human Nutrition (Honours, Class 1) and he is currently a PhD candidate at UC investigating quality of life and non-invasive biomarkers of people living with dementia. Nathan’s research interests and passions include ageing, cognition, technology, and nutrition. In particular, Nathan is focused on the potential benefits of healthy dietary patterns and dietary supplements to improve cognition and mental health. In this area, he has published on the effects of pre- and pro-biotics, blueberries, prickly pears, honey, a wide range of dietary supplements, and the Mediterranean dietary pattern.

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2.3 | CONSUMER & SENSORY SCIENCE

Damian Espinase Nandorfy

Senior Scientist, Australian Wine Research Institute

Topic: The relevance of statistical modelling and model systems in sensory science: Case studies from wine research

About:

Sensory Scientist Damian Espinase Nandorfy is part of the Sensory and Flavour Research group at the Australian Wine Research Institute in Adelaide, South Australia. Damian has over ten years' experience selling, making, researching, and enjoying wine! Originally from Canada, Damian holds an honours science degree in Viticulture & Oenology from Brock University, a post-graduate certificate in Sensory & Consumer Science from UC Davis and is currently undertaking a PhD at Deakin University on understanding the perceptual interactions of wine flavour compounds.

Presentation overview:

Wine is a complex natural product and its avour is the result of numerous interactions. This presentation will demonstrate how formal experimental designs and statistical models were applied to uncover these compound interactions responsible for particular wine sensory properties. The results from a series of sensory-directed studies conducted in synthetic and real wine systems will be discussed along with how these types of experiments can guide further research and wine production to optimise avours desired by consumers.

2.3 | CONSUMER & SENSORY SCIENCE

Sara Mawhinney
Kantar

Topic: Changing Methodologies: Convenience or Conversion

About:

By training Sara is a Product Developer. Joining Unilever as a graduate, she developed a curiosity for sensory/consumer research. As a Sensory Scientist, she developed trained panels and led global sensory programs across the foods business supporting brands like Flora. She then created a global sensory capability for the laundry category. Responsible for in-house development of research methodologies, she led sensory consumer projects supporting launches for brands like Persil, Surf, Omo and Rexona.

Sara is now a Director in the Kantar Global Sensory Team after more than a decade at Colmar Brunton where she oversaw Expert Trained Panel and Consumer Panel work. During her tenure, she has implemented several in-house product testing capabilities for manufacturers and retailers.

Currently, she manages one of Australia's commercial Expert Trained Panels and creates customised client training programs. Sensory testing and applying the data to predictive models, specifically by overlaying consumer and trained panel data, has been one of Sara's focus areas over the last decade. In her role, she strives to raise the awareness of the importance of sensory and drives sensory best practice across the business.
Sara has a First-Class Hons Degree Food Science & Technology (Reading) and MSc in Consumer Psychology (Bangor).

Presentation Overview:

Sara will be talking about Kantar's response to COVID-19 and how the sensory business has adapted to online testing and how respondents have reacted to this change. She'll be sharing the pitfalls and learnings on the way and comparing methodologie

2.3 | CONSUMER & SENSORY SCIENCE

Rozlynne Clarke

Sensory Manager Australia, *Goodman Fielder*

Topic: Sensory Research within a FMCG Business – Adapting and Overcoming Recent Challenges.

About:

Rozlynne Clarke brings 25 years of industry experience to share after completing a double degree in Marketing and Applied Science and a Certification from the University of California in Applied Sensory Science and Consumer Testing. Rozlynne's career commenced mid 1990's as an Account Manager with International Flavours and Fragrances, where her clients were from a wide variety of industries and applications including food, beverage and pharmaceutical.

Rozlynne further built a career specialising in Sensory research with Campbell Arnott's and Goodman Fielder which has provided professional training and experience in Australia, Arnhem Land and overseas including United States, New Zealand, Papua New Guinea, Solomon Islands and Fiji. With proficiencies in sensory evaluation, product development, food science, problem solving, training, client presentations and market research, she has the highly enviable task of taste-testing prototypes of some of Australia's iconic foods, and completed myriad quantitative and qualitative research.

Rozlynne is currently researching product development for the diverse Goodman Fielder portfolio which includes bread, cake mixes, dressings, mayonnaise, spreads, frozen meals and iconic brands Helga's, Wonder White, Praise, LaFamiglia, White Wings, MeadowLea and new vegan brand Plantry.

Heather Smyth

Principal Research Fellow, University of Queensland

Topic: Effective sensory evaluation enables data-driven decision making

About:

Associate Professor Heather Smyth is a flavour chemist and sensory scientist who has been working with premium food and beverage products for the past twenty years. With a background in wine flavour chemistry, her expertise is in understanding consumer enjoyment of foods.