

# **ADVANCING THE SCIENCE OF PRECISION AND PERSONALISED NUTRITION**

**2023 BODEN RESEARCH CONFERENCE**

19 & 20 OCTOBER 2023

SHINE DOME, CANBERRA

## **SUMMARY REPORT**



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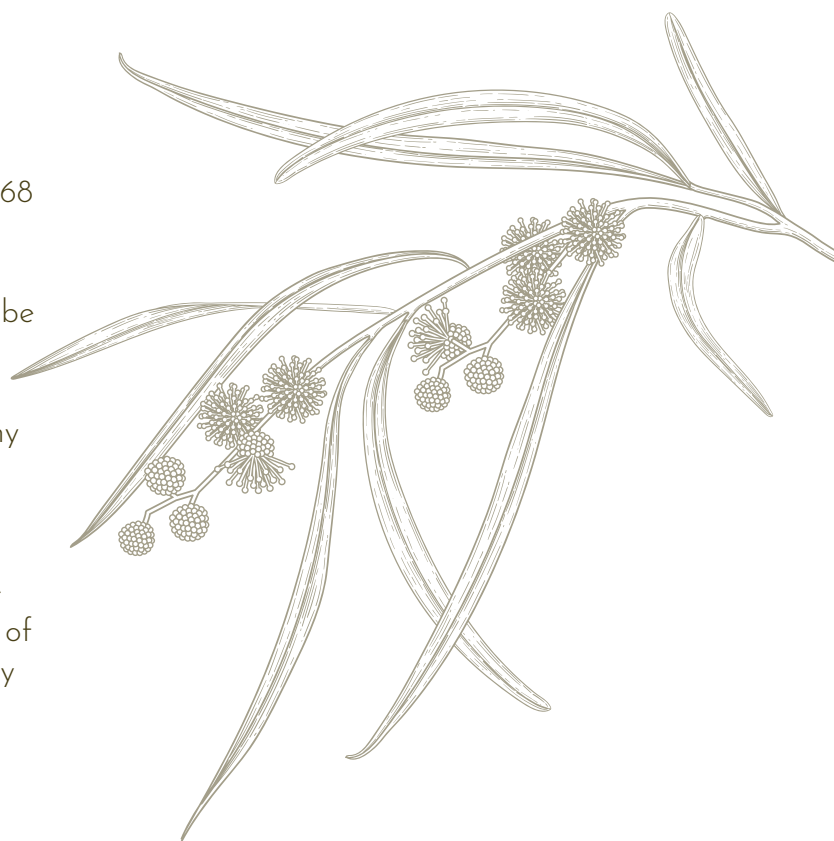
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The Australian Academy of Science acknowledges and pays respects to the Traditional Owners and the Elders past, present and emerging of all the lands on which the Academy operates and its Fellows live and work. They hold the memories, traditions, cultures and hopes of Aboriginal and Torres Strait Islander peoples of Australia. This event acknowledges the Ngunnawal and Ngambri peoples who are the traditional custodians of the Canberra area.

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# Foreword

When *Nourishing Australia: A decadal plan for the science of nutrition* was conceptualised in 2016, the science of precision nutrition was in its infancy. It was due to the knowledge and foresight of Professor Manny Noakes that precision and personalised nutrition was recognised as critical to Australian nutrition science. Our discipline has subsequently evolved, but the gap between science and translation into practice still exists. There is still much to learn, understand, and apply in an ethical, equitable, and diligent way to realise the potential of personalising nutrition for the benefit of individuals and communities.

The decadal plan acknowledges that food patterns are a central determinant of individual health and wellbeing, directly impacting quality of life and mental and physical productivity. However, our ability to deliver specific, targeted dietary advice remains limited. Optimising food and nutrition requires a deeper understanding of both individual and group differences to construct cost-effective solutions and an exploration of how personalised approaches may influence public health strategies. Precision nutrition, which links food with genetics, addresses contemporary issues such as environmental exposures, and cultural and social influences. Unravelling these interactions is essential to impart health benefits to everyone.

Precision nutrition has been emphasised as a central focus in both the [2020-2030 Strategic Plan for National Institutes for Health Nutrition Research](#) and the [European Union Food 2030 pathways for action](#). Consequently, it is imperative for Australia to maintain its position as a global leader in personalised nutrition research excellence.

This conference was supported by the Boden Research Conference funding scheme, managed by the Australian Academy of Science. Alexander Boden was a philanthropist who recognised the impact of chemistry and biochemistry on health and disease. His perspective envisioned the application of nutrition, chemistry, and biochemistry to public health. This conference aimed to further that vision by facilitating discussions a realistic and achievable action plan to implementing this pillar of the decadal plan.

The National Committee for Nutrition recognises the necessity of adapting to our ever-changing world to effectively achieve the goals outlined in the decadal plan. It is the responsibility of the Committee to encourage collaboration among key stakeholders to fulfill Nourishing Australia's objectives. In 2024, an implementation sub-committee will oversee actionable goals stemming from this conference. The efforts undertaken in this context are poised to endure and have a lasting impact as we collectively envision how precision and personalised nutrition can enhance the health of all Australians.



**Professor Helen Truby, PhD, AdvAPD, FNSA, FAFN**  
Chair, National Committee for Nutrition  
Professorial Research Fellow, University of Queensland  
Professor (Research) Monash University



# Reflection

It was my pleasure to address 50 early- and mid-career researchers (EMCRs) as part of the pre-conference workshop for the 2023 Boden Research Conference: Advancing the science of precision and personalised nutrition.

In my presentation, I reflected on my journey from being a dietitian, to a new PhD graduate, to my current role as a Laureate Professor in Nutrition and Dietetics and NHMRC Leadership Research Fellow.

The attendees gained insight into the normalcy of uncertainty during the first couple of years post-PhD, a period that persists until securing the first job or winning the initial grant or fellowship. They learnt the significance of continuing to publish as much as possible during this phase. Resilience and determination are paramount, as researchers commonly face publication and grant rejections. Believing in the value of your work and focusing on the conduct of quality science is key, and success will eventually come with persistence. It is essential to work both hard and smart to stay funded. When funds are scarce, lower-cost strategies such as secondary data analyses and systematic reviews can be beneficial. A mentor in the early phases of your career is important; I consider myself fortunate to have had Professor Manohar Garg advise and support me. Building a strong team around you and investing in the training of the next generation are central aspects that contribute to the growth of your research.

Following my presentation, I participated in small groups discussions focusing on the strengths, weaknesses, opportunities, and threats associated with conducting personalised nutrition. My own research in this area contributes additional evidence to the pathways guiding precision and personalized nutrition studies. Both my team and others are actively engaged in this research, aiming to advance knowledge and practice in this exciting and rapidly developing field.

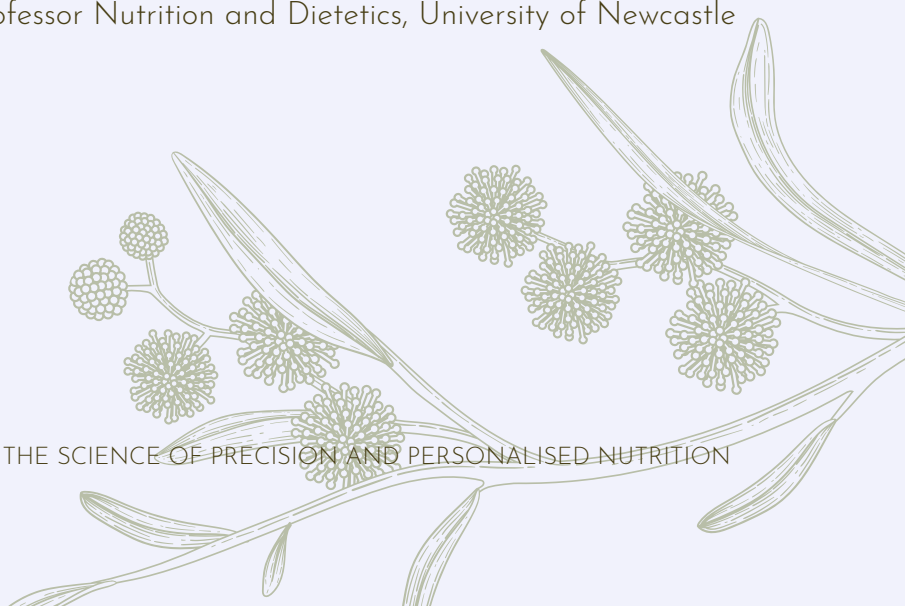
Many congratulations to the National Committee for Nutrition for delivering this important conference for EMCRs.



## **Laureate Professor Clare Collins, AO**

Guest Speaker, Boden pre-conference workshop

Laureate Professor Nutrition and Dietetics, University of Newcastle



# Conference Program: Day 1

In person

8.30 AM	<b>Registration</b>	
9:00 AM	<b>Official opening and Acknowledgement of Country</b> Dr Katherine Livingstone, Boden Conference Chair Professor Malcolm Sambridge FAA	
9:20 AM	<b>Implementation planning: Precision and personalised nutrition pillar</b> Professor Helen Truby	
9.45 AM	<b>Morning tea</b>	
11.00 AM	<b>Workshop 1a:</b> <b>Precision nutrition mechanisms</b> Dr Aimee Dordevic	<b>Workshop 2a:</b> <b>Personalised nutrition behaviour change</b> Dr Katherine Livingstone
11.30 AM	<b>Lunch</b>	
12.30 PM	<b>Workshop 1b:</b> <b>Precision nutrition mechanisms</b> Dr Aimee Dordevic	<b>Workshop 2b:</b> <b>Personalised nutrition behaviour change</b> Dr Katherine Livingstone
2.00 PM	<b>Afternoon tea</b>	
2:30 PM	<b>Workshop combined 1 and 2</b> Dr Aimee Dordevic and Dr Katherine Livingstone	
3:30 PM	<b>Wrap up and close</b>	

# Conference Program: Day 2

## Hybrid

11:30 AM	<b>Registration</b>
12:00 PM	<b>Official opening and Acknowledgement of Country</b> Dr Katherine Livingstone, Boden Conference Chair Professor Malcolm Sambridge FAA
12:20 PM	<b>Implementation planning: Precision and personalised nutrition pillar</b> Professor Helen Truby, Dr Katherine Livingstone, Dr Aimee Dordevic
12:45 PM	<b>Plenary 1: Equitable and strengths-based dietary approaches</b> Associate Professor Annabelle Wilson Chair: Dr Daniel Hwang
1:15 PM	<b>Short oral presentations 1</b> Chair: Dr Catherine Bondonno
2:00 PM	<b>Afternoon tea</b>
2:20 PM	<b>Short oral presentations 2</b> Chair: Dr Catherine Bondonno
3:15 PM	<b>Plenary 2: Psychology for targeting behaviour change</b> Professor Barbara Mullan Chair: Dr Daniel Hwang
3:45 PM	<b>Plenary 3 (virtual): Personalised nutrition for metabolic health</b> Dr Sarah Berry Chair: Dr Daniel Hwang
4:15 PM	<b>Panel discussion</b> Chair: Dr Anneline Padayachee and Dr Daniel Hwang
5:00 PM	<b>Awards, wrap up and close</b> Professor Margaret Allman-Farinelli Dr Katherine Livingstone



# Introduction

This two-day conference focused on accelerating the implementation of *Nourishing Australia's* pillar on precision and personalised nutrition, as well as celebrating the state of the science at national and international levels. Early- and mid-career professionals, including postgraduate students, had the opportunity to submit abstracts on their research on precision and personalised nutrition and present these in person at the conference. Travel grants, supported by the Australian Academy of Science, the Nutrition Society of Australia, Dietitians Australia and the Australian Nutrition Trust Fund, were provided to enable attendees to join in person.

## Day 1 | Workshops

The primary goal of day 1 was to empower early- and mid-career professionals to take an active role in leading implementation activities. The workshops provided attendees with an opportunity to take ownership of the promotion and execution of specific goals, with a commitment to driving progress towards achieving their respective objectives by 2030. Two workshop streams ran in parallel:

- **Precision nutrition mechanisms:** This priority area focussed on the mechanisms by which diets, foods, and nutrients influence human biology, defining how and why dietary patterns affect health and wellbeing.
- **Personalised nutrition behaviour change:** This priority area focussed on dietary behaviours, considering societal determinants and the education and research training of nutrition professional.

## Day 2 | Short orals and plenaries

Building on the workshop outcomes from day 1, National Committee for Nutrition early- and mid-career professionals provided an overview of the draft implementation plan and next steps for the precision and personalised nutrition pillar. Attendees presented their research through short oral presentations and had the opportunity to hear from national and international speakers covering critical topics in the field. Prizes for the best oral presentations, supported by the Food & Function Journal, were awarded.

# Working group summary

## Precision and Personalised Nutrition

### Background

The challenges of persistent malnutrition, diet-related chronic diseases, and food sustainability pose significant global risks to health. It is now evident that the one-size-fits-all approach is not applicable to diet. Each person's unique genetic profile, environmental exposures, and health status influence how they respond to foods and dietary patterns. A major challenge for nutrition science in this new era is to unravel the complex mechanisms by which diet influences biology and health at an individual level. This understanding will enable the optimisation of food systems and dietary guidelines for both health outcomes and environmental sustainability.

We are in an era marked by significant advancement in genomic and information science, technologies, and associated analytics. These advancements enable more sophisticated healthcare solutions with greater precision. This evolution is fostering a new, efficient, and innovative health economy, ultimately leading to more cost-effective health and disease management. The accessibility of web-based health and medical knowledge is reshaping the dynamics of health management, empowering consumers and patients. They are increasingly engaged in their own health management, contributing to a shift in the balance of control.

There is a need to develop a national coordinated framework to advance personalised and precision nutrition science in Australia. To achieve this, engagement and training are required with a range of stakeholders, including researchers, health practitioners, government representatives, industry professionals, and consumers.

### Outcomes

Aspirational targets from the precision and personalised nutrition pillar of the decadal plan were reviewed and revised. Three main themes were developed in the workshops:

- A high-level nutrition policy and implementation plan.
- Improvement in the quality and cost-effectiveness of nutrition-related disease prevention and treatment.
- Positioning Australia as a global leader in evidence-based precision and personalised nutritech products and services.

Considerable discussion took place regarding the necessity for government support and funding, highlighting the importance of a national nutrition policy to enhance personalised dietary recommendations and programs. It was emphasised that establishing a trusted voice is crucial for engaging ministers who could champion such a nutrition policy. A key initiative involves creating a cost-benefit economic model to showcase the impact of precision and personalised nutrition strategies, encompassing products and services.

Many of the discussion points converged with outcomes from the other pillars of the decadal plan. The establishment of a national data capability, incorporating data from nutrition



mechanisms and social determinants research, would facilitate high-level analysis. This analysis aims to generate the evidence necessary for ethical, legal, and socially just precision and personalised nutrition solutions.

Engagement between research, industry, and consumers was also considered essential, as products and interventions need to be co-designed to ensure maximal impact and cost-effectiveness. Additionally, a key consideration for the development of technologies is to ensure that products and services are both environmentally and economically sustainable. With the development of novel nutritech products, training will be needed to upskill both emerging and established nutrition professionals in health care, public health, and research.

### **Implications**

The Boden conference and workshops enabled a team of interdisciplinary experts to generate a high-level implementation plan for the development of precision and personalised nutrition strategies in Australia. This plan formed the basis for future collaborations to action the items outlined in the plan. Activities such as stakeholder engagement, economic modelling, policy consultation, and establishment of a nationally representative cohort study to identify individual and group factors determining disease and health outcomes will lead to the long-term benefits, including:

- Improved personalised dietary recommendations.
- Reduced diet-related disease burden through dietary change (short term) and decreased prevalence of disease (long term).
- Incorporation of personalised and precision nutrition into national and state policies, e.g., “a national plan”.
- Australia as a world leader in ethical, legal, socially just, and sustainable cutting-edge nutrition data science and technology that translates data into action. This leadership aims to improve the quality and cost-effectiveness of disease prevention and treatment for health and wellbeing optimisation across all life stages.

## **SWOT Analysis: Precision and Personalised Nutrition**

### **Strengths**

- Motivated behavior change: An aligned with advances in digital health and technologies fosters timely adaptation.
- Strategic priority for organisations and industry: There is potential for significant social and economic impact, facilitating quicker implementation of research findings into practical applications.
- Multidisciplinary scope: Offers a comprehensive approach in alignment with big data trends.
- Nutrition scientists' leadership role: Nutrition scientists possess the skills necessary to lead and legitimise person-centered precision nutrition initiatives.

### **Weaknesses**

- Delays in obtaining national nutrition data: Bureaucratic processes can lead to a lag in acquiring crucial information.

- Data gaps in at-risk groups and hospital settings: Insufficient data in critical populations and healthcare environments may limit comprehensive insights.
- Delayed integration of machine learning technologies: Slow adoption and implementation of machine learning technologies may hinder potential advancements.
- Insufficient research investment in nutrition science: There are limited funding and support for research initiatives in the field of nutrition science.
- Potential widening of inequities: A risk of exacerbating disparities exists due to costs and limited accessibility, potentially leaving certain groups underserved.
- Policy emphasis on treatment over prevention: Current policies prioritise treatment rather than preventive measures in the realm of nutrition.
- Lack of skills and training in data usage and interpretation: Education and training in utilising and understanding nutrition data is inadequate.
- Lack of regulation in commercial offerings: An absence of regulatory frameworks for evidence-based approaches contributes to a lack of trust in emerging evidence.

### Opportunities

- Demonstrating the importance of nutrition: There is opportunity to showcase the crucial role of nutrition to attract funding.
- Leadership in data sharing ethics: Establishing ethical standards for data sharing and collaborating across health professions will translate scientific findings into actionable insights.
- A voice for nutritionists: An amplified voice for nutritionists to convey important messages may prevent less trusted voices dominating the narrative.
- Transdisciplinary collaboration: Collaboration among diverse disciplines, including medical, data science, food science, physiologists, and consumers, fosters a holistic approach to nutrition.
- Open science and databases: Embracing open science practices and the development of accessible databases to facilitate transparent and collaborative research efforts.

### Threats

- Non-evidence-based practices and expertise perception: The existence of non-evidence-based practices contributes to a perception that nutritionists are not universally recognised as the foremost experts in the field.
- Misconception of nutrition as non-scientific: Widespread misinformation creates a perception that nutrition is not rigorously grounded in scientific principles, potentially undermining the credibility of the profession.
- Tools developed without nutrition science professionals: Development and interpretation of tools without qualified nutrition professionals may compromise accuracy.
- Lack of funding and unity: Insufficient financial support and lack of unity hinder collective progress within the nutrition profession.
- Neglect of environmental considerations: Failure to consider environmental impact in promoting healthy diets overlooks the crucial link between nutrition and planetary health.
- Resistance to new science and innovations: Reluctance to embrace new scientific findings and innovations represents a weakness in adapting to evolving knowledge.

# Conference attendees



## EMCR attendees

**Dr Jessica Biesiekierski**  
Monash University

**Dr Barbara Brayner**  
Deakin University

**Caroline Brito Nunes**  
University of Queensland

**Dr Juliana Chen**  
University of Sydney

**Dr Barbara Cardoso**  
Monash University

**Dr Erin Clarke**  
University of Newcastle

**Dr Andrew Costanzo**  
Deakin University

**Dr Jessica Danaher**  
RMIT University

**Dr Rochelle Davis**  
Monash University

**Dr Kaitlin Day**  
University of Melbourne

**Carolyn English**  
Bond University

**A/Prof Sara Grafenauer**  
University of New South Wales

**Dr Michael Houghton**  
Monash University

**Jennifer Hutchinson**  
University of Canberra

**Dr Priya Iyer**  
University of Sydney

**Mark Leary**  
University of Newcastle

**Dr Ellas Ligdopoulos**  
University of Canberra

**Dr Li Li**  
University of Queensland

**Alyb Locus By**  
University of Canberra

**Elizabeth Low**  
University of Canberra

**Harshini Meegaswatte**  
University of Canberra

**Dr Kathleen Miles**  
Australian National  
University

**Dr Chiara Murgia**  
University of Melbourne

**Dr Dianne Reidlinger**  
Bond University

**Stephanie Resciniti**  
La Trobe University

**Dr Janelle Skinner**  
University of Newcastle

**Linda Smillie**  
University of Canberra

**Dr Matthew Snelson**  
Monash University

**Dr Jordan Stanford**  
University of Newcastle

## Government and non-government attendees

**Emma Breen**  
Food Standards Australia  
New Zealand

**Dr Shiva Greenhalgh**  
Sydney Animal Nutrition

**Jennifer Savenake** (online)  
National Health and Medical  
Research Council

**Myra Cheng**  
Australian Research Data  
Commons

**Rebecca Mete**  
Dietitians Australia

**Dr Paula Smith-Brown**  
Microba

**Lorna Munro**  
Food Standards Australia  
New Zealand

**Dr Welma Stonehouse** (online)  
Nutrition Society of Australia

## National Committee for Nutrition Conference Organising Committee



### Bodan Conference Chair: Dr Katherine Livingstone

Katherine Livingstone is a Registered Nutritionist, NHMRC Emerging Leadership Fellow, and Coordinator for the Food Nutrition and Health domain at the Institute for Physical Activity and Nutrition at Deakin University. She is the implementation lead for the NCN precision and personalised nutrition pillar. Her research aims to improve dietary patterns and cardiometabolic health in adults using personalised nutrition approaches.



**Dr Catherine Bondonno**  
Edith Cowan University



**Dr Aimee Dordevic**  
Monash University



**Dr Daniel Hwang**  
University of Queensland



**Professor Margaret  
Allman-Farinelli**  
University of Sydney



**Professor Helen Truby**  
University of Queensland



**Penny Brew**  
Australian Academy of  
Science

## National Committee for Nutrition attendees

**Dr Anneline Padayachee**  
The Food Scientist

**Dr Eugeni Roura**  
University of Queensland

# Speakers

## Plenary speakers



### **Associate Professor Annabelle Wilson**

Annabelle Wilson is an Associate Professor and Advanced Accredited Practising Dietitian in the discipline of population health at Flinders University. Her research expertise includes Aboriginal and Torres Strait Islander health research, strengths-based approaches to working with Aboriginal and Torres Strait Islander communities, food systems, and health professional practice. Her research looks at ways in which health professionals, particularly those who are non-Aboriginal, can work best with Aboriginal and Torres Strait Islander peoples.



### **Professor Barbara Mullan**

Barbara Mullan is a Professor of Health Psychology. Her research is focused on designing innovative theory-based interventions to change behaviour. Professor Mullan started her academic career in Birmingham University where she also became a Registered Practitioner Psychologist (Health Psychology) with the Health and Care Professions Council. Following time at the University of Sydney, she moved to Curtin University in 2013 as a research academic.



### **Dr Sarah Berry**

Sarah Berry is a Reader in Nutritional Sciences at King's College London and Chief Scientist at ZOE Ltd. Her research interests relate to the influence of dietary components on cardiometabolic disease risk, with particular focus on personalised nutrition, postprandial lipid metabolism, and food and fat structure. As the Chief Scientist at ZOE Ltd, she leads the PREDICT program of research, assessing the genetic, metabolic, metagenomic, and meal-dependent effects on metabolic responses to food in >100,000 people.

## Opening speaker



### **Professor Malcolm Sambridge FAA**

Malcolm Sambridge is Vice President and Secretary for Physical Science at the Australian Academy of Science. He is Professor in the Research School of Earth Sciences at the Australian National University.



# Short oral presentations

## **Psychological predictors of symptom and quality of life response to the low FODMAP diet: A 6-month longitudinal study in adults with irritable bowel syndrome**

Lauren P Manning, Caroline J Tuck, Maaike Van den Houte, Lukas Van Oudenhove, Jessica R Biesiekierski\*

## **Divergent effects of high-calorie high-fat feeding on large artery and muscle capillary blood flow in healthy humans**

Barbara Brayner\*, Michelle A Keske, Katherine M Livingstone, Gunveen Kaur

**Winner: Judges' Choice Award**

## **Phenome-wide association analysis of supertaster gene TAS2R38 reveals novel relationship with bipolar disorder and kidney function**

Caroline Brito Nunes\*, Amanda Wei-Yin Lim, Quimbe Dy, Jue-Sheng Ong, Liang-Dar Hwang

## **A three-arm randomised controlled trial of a personalised intervention targeting improvement in addictive eating for Australian adults (the TRACE program)**

Janelle Skinner, Mark Leary\*, Kirrilly Pursey, Antonio Verdejo-García, Megan C Whatnall, Lisa Wood, Susan Paxton, Phillipa Hay, Leanne Hides, Clare Collins, Amanda L Baker, Tracy Burrows

**Runner up: Judges' Choice Award**

## **Feasibility of personalised telehealth medical nutrition therapy for adults screened at moderate to high risk of cardiovascular disease in rural NSW: The HealthyRHearts randomised controlled trial**

Jaimee Herbert, Tracy L Schumacher, Leanne Brown, Erin D Clarke\*, Clare E Collins

## **Selenotranscriptome network in Alzheimer's disease**

Barbara R Cardoso\*, Kaitlin Day

## **Temporal Patterns of Taste Sensitivity**

Andrew Costanzo

**Runner up: Judges' Choice Award**

## **Reduction in systolic blood pressure following dietary fibre intervention is dependent on baseline gut microbiota composition**

Matthew Snelson\*, Hamdi A Jama, Dakota Rhys-Jones, Michael Nakai, Geoffrey A Head, David M Kaye, Charles R Mackay, Jane Muir, Francine Z Marques

**Winner: People's Choice Award**

## **Review and synthesis of the dietary assessment and metabolomic methodologies in feeding studies: A scoping review**

Erin D Clarke, Jessica JA Ferguson, Jordan Stanford\*, Clare E Collins

\* Denotes speaker



Awardees (L-R) Mark Leary, Dr Andrew Costanzo, Dr Matthew Snelson and Dr Barbara Brayner with conference chair Dr Katherine Livingstone (centre).

## Attendee Feedback

"It was great to have people from different backgrounds (i.e., industry, policy, private practice) represented and express their points of view."

"I felt all contributions were encouraged and discussed in a collaborative manner."

"Thank you for the excellent conference! I believe the small nature of it and how the conference was organised was particularly useful for networking."

"All of the presentations were very valuable. The broad and inclusive selection was excellent."

"I look forward to remaining involved and to the next conference!"

# Next steps

It was a pleasure to chair the Boden Research Conference and to work with a dedicated organising committee to deliver this event. I was inspired by the enthusiasm of the early- and mid-career researchers and professionals who joined the conference to share their ideas, passion for, and perspectives on the future of precision and personalised nutrition, including those who joined us online for the second day of the conference. The attendees shared a vision to establish priority actions from this pillar of *Nourishing Australia*. Prioritising next steps for this broad field of research is challenging, so we must ensure that we develop a realistic program logic model to focus our efforts on implementable actions to advance the field. We thank those who joined us online for the second day of the conference.

The National Committee for Nutrition acknowledges that the fast-moving nature of precision and personalised nutrition research, products, and services requires us to revisit the goals outlined in the decadal plan. It is the responsibility of the committee to mobilise organisations, gather stakeholders, and harness their collective efforts to realise the logic model emerging from this conference. This logic model will be integrated with those generated from the Theo Murphy Initiative symposium, where the other pillars of *Nourishing Australia* were reviewed.

The committee extends its gratitude to all of the attendees for contributing their collective knowledge and sharing their ideas, which provide valuable insights into how we can move towards implementation of this pillar. Attendees were from a wide range of sectors, including academia, government, non-government, and industry. This rich diversity of perspectives enabled the creation of a logic model that reflected many sectors of the precision and personalised nutrition workforce.

Thanks also go to the national and international plenary speakers who generously shared their insights and expertise into equitable and strength-based dietary approaches, the psychology for targeting behaviour change and personalised nutrition for metabolic health. Collectively, the speakers reflected on how to advance the science of personalised and precision nutrition in an effective and equitable manner.

Nourishing Australia's vision cannot be realised without collective action. The ongoing efforts of the working group will build on the work of the attendees to deliver implementation activities. As a mid-career researcher working in this field, it is exciting to join forces with my peers as we establish the structures required to support a food system that can nourish all Australians.



**Dr Katherine Livingstone, PhD, RNutr**

Boden Conference Chair

Member, National Committee for Nutrition

NHMRC Emerging Leadership Fellow, Deakin University



# References

The National Committee for Nutrition would like to acknowledge the 60+ early- and mid-career researchers (EMCRs) who attended the July 2017 [Theo Murphy High Flyers Think Tank 'Rethinking food and nutrition science'](#). We appreciate their collective contribution to developing the decadal plan and the associated discussion papers:

- [Nourishing Australia: A decadal plan for the science of nutrition](#)
- [The food environment](#)
- [Empowering food choices](#)
- [Effective governance for food and nutrition science in Australia](#)
- [Critical evaluation of food and nutrition science: An Australian perspective](#)
- [The Australian food and nutrition knowledge hub: A critical piece of national infrastructure for nutrition science](#)

In July 2023, approximately 70 EMCRs attended the [Theo Murphy Initiative-funded symposium 'Empowering EMCRs to lead the future of the science of nutrition'](#) to advance implementation of other pillars and enabling platforms of the decadal plan. A summary report was prepared:

- National Committee for Nutrition. 2023, [Summary report: Empowering EMCRs to lead the future of the science of nutrition](#). Australian Academy of Science.

## Other references

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The National Committee for Nutrition gratefully acknowledges support from the Australian Academy of Science, Dietitians Australia, the Australian Nutrition Trust Fund, the Nutrition Society of Australia and Food and Function. This conference is part of the Boden Research Conference funding program, established in 1981 as a series of small specialist conferences in the biological sciences to enable active research workers in rapidly advancing fields to discuss current advances and problems.

