The Broad Role of Nutrition Science

Nutrition research has, to date, provided us with invaluable evidence to shape the national dietary guidelines we use today. It has shown that optimum nutrition offers one of the most cost-effective ways to decrease the risk of many diseases and can help us better understand the causes of the major non-communicable diseases such as obesity, cardiovascular disease, diabetes, and cancers.

However, nutrition scientists today are facing increasingly difficult challenges. Fifty percent of the global population suffer some form of malnutrition and more than two billion people do not have access to an affordable healthy, balanced diet.[1] Concurrent to this, climate change is now considered the single biggest health threat facing humanity, and our current eating patterns and the food system as a whole, are environmentally unsustainable.[2, 3] With the added challenge of the climate crisis threatening food production, nutrition professionals will face increasing pressures as we endeavour to feed a growing population.

Given food systems account for approximately 30% of global greenhouse gas emissions and sub-optimal diet has been identified as a leading cause of poor health, nutrition scientists have a central role to play in addressing these challenges.[2, 4] Being at the intersection of multiple disciplines within science, nutrition research holds great promise in finding solutions to reduce disease risk and positively influence global human health and economy in an environmentally sustainable way.

Yet success will require the nutrition research community to reconsider who is involved in nutrition science. For nutrition research to be truly impactful in combatting malnutrition and promoting healthy, sustainable diets, nutrition scientists will need to continue to work collaboratively with other scientific disciplines to incorporate innovative and multi-disciplinary methods and training. The Dutch coalition Nutrition in Transition (NiT) explored some of the current challenges facing nutrition science and highlighted that success requires concerted effort by the nutrition community to answer the complex and challenging twenty-first-century problems related to food, nutrition and health, and effectively communicate with both the public and policymakers.[5]

The Nutrition Society Themes

To address these emerging challenges and encourage advancement of nutrition science, The Nutrition Society has in place a structure of Themes and Special Interest Groups (SIGs) to promote and support the advancement of nutritional science. Acknowledging the need for nutrition scientists to undertake work within and across multiple disciplines, the four Themes cut across all research areas:

- **nutrition and optimum life course,**
- **food systems,**
- **nutrition in the treatment, management and prevention of disease,**
- **novel nutrition research methodologies and technologies.**

To champion these networks and ensure effective representation across the disciplines, the four Themes encourage interdisciplinary working of researchers from molecular to public health, policy, and nutrition research methodologies. Each Theme has areas of overlap, allowing the potential for cross talk across the different fields of research. To ensure they evolve with advancements of nutritional science, consider novel and innovative study designs and drive collaboration with other disciplines, The Nutrition Society introduced Special Interest Groups (SIGs). SIGs are intended to be flexible and to champion innovative activities that will achieve the objectives of your SIG. These networks are an excellent way to develop professional contacts, share interests and work collaboratively. Nutrition Society members can join one or more Themes, or SIGs, depending on their research area.

References: **1.** FAO, IFAD, UNICEF, WFP and WHO (2021). The State of Food Security and Nutrition in the World 2021. Transforming food systems for food security, improved nutrition and affordable healthy diets for all. Rome, FAO.; doi:10.4060/cb4474en. **2.** Fanzo JC, Downs SM. (2021). Climate change and nutrition-associated diseases. Nat Rev Dis Primers.; 7: 90. **3.** World Health Organisaton (WHO). (2022). World Health Statistics. Accessed online: https://cdn.who.int/media/docs/default-source/gho-documents/world-health-statistic-reports/worldhealthstatistics_2022.pdf (June 2022). **4.** Ronto R, Wu J, Singh G. (2018). The global nutrition transition: Trends, disease burdens and policy interventions Public Health Nutr.; 21(12): 2267-2270. **5.** Tufford AR, et al. (2020) Is nutrition science ready for the twenty-first century? Moving towards transdisciplinary impacts in a changing world. Eur J Nutr.; 59: 1–10.

The Nutrition Society Themes

Nutrition and optimum life course
Theme lead: Dr Wendy Hall, King's College London

Food systems
Theme lead: Dr Christian Reynolds, City University, London

Nutrition in the treatment, management and prevention of disease
Theme lead: Dr Oonagh Markey, Loughborough University

Novel nutrition research methodologies and technologies
Theme lead: Dr Ruan Elliott, University of Surrey

Updates and Events Calendar

Conferences

- **12-15 July 2022: Summer Conference –** Food and Nutrition: Pathways to a Sustainable Future.
- **6-7 September 2022: Nutrition Futures –** A diverse and interactive experience for all nutrition science students, graduates and prospective students.

Nutrition Society Training Academy (NSTA)

You can now continue your professional development around your busy schedule – with on-demand and live webinars across a range of nutrition related topics: **www.nutritionsociety.org/training-academy/on-demand-webinars**

***Gut Microbiome* Journal**

Publish for free in our open access journal, Gut Microbiome until October 2022.

CPD endorsement by the Association for Nutrition has been applied for, for ALL Nutrition Society Events.