

Foreword

Nutrition and Aging is a new international journal directed to the study of the effects of diets and dietary components/nutrients on ageing and age-related diseases. As study in the fields of nutrition and aging are extremely diverse, with research efforts ranging across cell and molecular studies to clinical investigations, the Journal will have a number of focal areas. Firstly, the potential of diet and dietary components to prevent the progression of typical and atypical aging, including that observed in cardiovascular disease and neurodegenerative disorders, is likely to be a fundamental focus of the journal. Research specifically focussed on the ability of diet to influence the aging process have gained significant scientific focus over the last 10 years as the need for preventive medical approaches to the treatment of human disease has intensified. Whilst there will always be a requirement for curative medicine and for the treatment of disease symptoms with pharmaceutical agents/drugs, there is a growing awareness, likely to take hold over the next 5–10 years, that disease prevention strategies also need to take centre stages for effective, population level human health. At the same time, there has been growing acceptance that diet and specific dietary components may have a significant role to play in the prevention of various disease pathologies that become more prominent with age. As such, nutritional strategies for the prevention of human disease are being considered as viable options for effective human health, something that has attracted high calibre scientists to the field and driven up the rigor of the science being conducted.

Nutrition and Aging will provide a forum to capture much of the work emanating from cellular and animal model studies, as well as human studies designed to assess the impact of diet and individual nutrients on human health. The journal's primary interest, long-term, is in the publication of well designed, adequately-controlled, randomised, human intervention trials that use well established clinical endpoint

measures to provide new, high quality data regarding the impact of nutrients and diets of disease and the ageing process. As well as a emphasis on how nutrients affect the ageing process itself, we expect significant interest from both authors and readers with regards to the impact of diet on the progression and onset of age-related diseases, notably cardiovascular disease, neurodegenerative disorders and neuro-cognitive function. With regards to this, a number of the Editorial Board have significant expertise in investigating the impact of plant-derived diets on aging and on disease pathology. The Journal will seek high-level publications regarding the influence of vitamins, minerals, phytochemicals and other micronutrients on aging and age-related cell/tissue function.

In addition to functional or efficacy studies, it is also crucial to understand the precise mechanism(s) of action of diet, or better specific nutrients, underpinning these changes in physiological function. Such lines of investigation, predominately conducted *in vitro* and/or *ex vivo*, have attracted huge interest over a number of years, although many such studies have fallen short of revealing such mechanisms due to inadequate study design and a failure to take account of the absorption and metabolism of nutrients that occurs *in vivo*. *Nutrition and Aging* will actively encourage the publication of manuscripts detailing evidence for the mechanisms of actions of nutrients and those providing evidence for cause-and-effect relationships between individual nutrients and function. The Journal also recognises the importance of environmental and genetic factors linked to aging and age-related diseases and how these influence the potential of nutrients to act *in vivo*. This is an emerging area and knowledge regarding these factors is not only critical for understanding the action of the diet and nutrition at a population level, but is also important for the design of large human clinical studies where efficacy is being assessed in heterogeneous populations.

Nutrition and Aging has attracted support of an outstanding international Editorial Board, (<http://www.iospress.nl/journal/nutrition-and-aging/>) who are all experts within the various remit areas of the Journal and who are dedicated to raising the impact of the Journal in the coming years. Indeed, it is strongly believed that the quality of the assembled Board bodes extremely well for the success of the Journal given that so many leading scientists have been willing to participate. *Nutrition and Aging* will publish original research articles, short communications, critical reviews and conference summaries, whilst open peer commentaries, or letters-to-the-editor, are also welcomed. All articles will be published both online and print and the Journal offers rapid publication with an affordable open access option.

In the near future, the Journal has plans to establish a *News and Views* section intended to highlight specific areas of interest within the scope of the Journals remit. It is the intention that this section of the Journal will grow and evolve and ultimately will serve as a forum for the delivery of research to the lay public. As such, the Journal has founded a Facebook page (<http://www.facebook.com/pages/Nutrition-and-Aging/116668178441480>) where it is intended researchers and the lay public can interact in scientific debate regarding the emerging research papers and press articles.

The launch issue of *Nutrition and Aging* is dedicated to the memory of Professor Jim Joseph and Professor Mark Smith and as such focuses primarily on the impact of diet on brain ageing. Both Jim and Mark were leading researchers in this area and over the last 25 years contributed hugely to it by highlighting both the processes by which the brain ages and the potency of specific diets and/or nutrients to inhibit such processes. Through their pioneering research they were instrumental in raising the profile of research dedicated

to understanding the influences of diet on the brain and against brain disease. Their prescience regarding the importance of this area of science is now obvious as we face an ever-ageing population, which will become increasingly susceptible to chronic disease and in particular debilitating brain disorders. Indeed, as a society we face a huge challenge in dealing with the significant increases in those living with brain diseases such as Alzheimer's and Parkinson's disease, as well as those suffering from vascular dementia and general age-related cognitive impairment. There is little doubt that the work of both Jim and Mark helped to promote this area of science, highlighting its importance to researchers and funding agencies. Indeed, many of the articles published in this issue detail research that they inspired. On a personal note, as a young PhD student and young investigators working in the area of brain and systemic oxidative stress and inflammation, Parkinson's disease and cardiovascular disease, they were inspirational and continue to inspire the work we do today for tomorrow's future. It is truly a great pleasure to dedicate this issue to them.

Editors-in-Chief

Professor Jeremy P. E. Spencer, PhD
School of Chemistry, Food and Pharmacy
University of Reading
UK
E-mail: j.p.e.spencer@reading.ac.uk

Britt Burton-Freeman, PhD, MS
Director, Center for Nutrition Research
Illinois Institute of Technology
USA
E-mail: bburton@iit.edu