THE NUTRITION SOCIETY GAZETTE

Winter 2016

THE NUTRITION SOCIETY 75 YEARS
Advancing Nutritional Science

www.nutritionsociety.org

Professor Philip Calder, There is much to celebrate...

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Cover image: Honorary Fellows receive their Fellowship certificates during the Summer Meeting in Dublin

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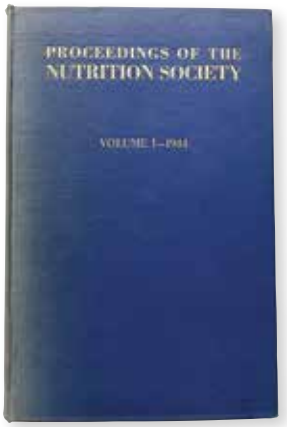
Foundation of The Nutrition Society

In July 1941, the following invitation was sent out:

Just before the outbreak of war a suggestion was made by several people interested in research on nutrition that a Nutrition Society should be formed. Owing to the outbreak of war the idea was abandoned. The question has, however, again been raised and there are a considerable number of research workers and others in favour of holding meetings to discuss nutritional problems. Such meetings would serve a useful purpose, especially in enabling workers studying different aspects of the same problem in agricultural and medical institutions to meet and help each other with information and constructive criticism.



The first volume of *Proceedings of the Nutrition Society*, published in 1944, which recorded the founding of the Society in 1941.

If there is a sufficient number of workers who wish to hold meetings for discussion of nutritional problems, the best procedure would be to form a society on the lines of the Physiological and the Biochemical Societies although there would be no question of publishing a journal in the meantime.

In view of the difficulty of travelling, it might be convenient to form separate English and Scottish branches which could meet independently but which might maintain contact during the war by exchanging short notes on the papers and discussions at meetings.

In accordance with this invitation a meeting of workers interested in nutritional problems, convened by Sir John Boyd Orr, was held in London at the Royal Institution on July 23, 1941 and The Nutrition Society was founded. ■

Cover image: Honorary Fellows receive their Fellowship certificates during the Summer Meeting in Dublin. Left to Right: Professor D. Joe Millward PhD. DSc. RNutr, Professor W. Philip T. James CBE. FRSE. MD. DSc, Professor Roger Whitehead CBE, Professor Jo Hautvast MD. PhD, Professor Leif Hambraeus MD. PhD, Professor Mark L. Wahlqvist AO. BMedSc. MBBS. MD. FRACP. FAIFST. FACN. FAFPHM. FTSE, Professor Alan Jackson CBE. MD. DSc. FRCP. FRCPCH. FRCPath. RNutr

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There is much to celebrate…

Professor Philip Calder, President, The Nutrition Society

I assumed my Presidency of the Nutrition Society during the Summer Meeting in Dublin in mid-July. It is a huge honour for me to take on this important role and I would like to thank those individuals who encouraged me to do so. I would also like to thank sincerely my predecessor Professor Catherine Geissler. Catherine's Presidency coincided with a period of significant change in the Society. Her steady leadership ensured a smooth transition in the structure and processes of the Society and of the Society's office, and has put the Society in an excellent position, both organisationally and financially, to meet the challenges of the coming years.

My first official engagement representing the Nutrition Society was attendance at the Royal Society of Biology's Annual Awards event in London on October 13th. This was a wonderful event celebrating the communication of biological science. There were awards for outreach work carried out by a young scientist and by an established researcher to inform, enthuse and engage the public – the two awardees each presented an awe-inspiring and uplifting summary of their activity. Winners of the amateur photography competition "Biology from Big to Small" were announced – a number of truly amazing photographs were on display – as were winners of the three categories of book award, general biology, undergraduate textbook, and postgraduate textbook. The books shortlisted for the general biology award each sounded like wonderful reads, and confirmed the view that despite other forms of media, the written word presented in hardcopy remains a force. At the end of the evening, I was very proud when Royal Society of Biology Chief Executive Mark Downs mentioned the Nutrition Society as one of their seven key supporters.

This year is the 75th anniversary of the Nutrition Society, a longevity that all members can be proud of. As part of the anniversary celebrations, we have created Fellowships to honour those senior members who have made truly significant contributions to nutrition science and its application. The first group of Fellowships were awarded during the Dublin meeting and a second group will be awarded during the Winter Meeting in London. The Winter Meeting will also be used to hold a special 75th Anniversary celebration event.

The Nutrition Society's 5-year strategic plan was finalised earlier this year. This focuses on maintaining the Society's high level of achievement in scientific publishing and related activities, like hosting conferences and other scientific meetings, whilst further developing its training activities and its links with other organisations both within the UK and internationally. Clearly much of my Presidency will be devoted to ensuring that the Society meets the objectives listed within its strategic plan. The Nutrition Society is a learned society with the principal aim of advancing the scientific study of nutrition and its application to the maintenance of human and animal health. Through its activities, the Society aims to support and to enhance the professional experiences of its members. The traditions and values of the Society are firmly rooted in nutritional science, and I will make sure that this is recognised as the Society diversifies its activities and seeks new partnerships.

One area where the society could be doing better is in its relationship with "medical nutrition". The application of nutritional science in medicine must be strongly evidence based, and therefore our clinical colleagues need an effective dialog with those researchers who are generating the evidence base. Conversely, the researchers need a strong dialog with the medical community in order to fully understand the real-life challenges, complexities and opportunities of their work and its application. It is my aim to establish a better line of communication with the medical nutrition community and to enhance the opportunities for engagement.

The Society has an important leadership role to play for those involved in the science and application of nutrition. I think this role is well appreciated by many of its members, but to others the Society is there just "to do things" like organise conferences and, more recently, training events, and to publish journals and textbooks. However, these seemingly different roles are linked forming part of a continuum in which the organisation of high quality scientific conferences and the publication of state-of-the-art textbooks and of prestigious journals enables the Society to play a central role in standard setting and discipline leadership. These roles are further enhanced through the Society's national and, more especially, international partnerships and collaborations. I believe that this leadership role is something to cherish and protect, and also to use to the advantage of the Society, its membership and the wider national and global nutrition discipline.

Running in parallel with the period of my Presidency will be preparation for the Federation of European Nutrition Societies (FENS) Congress, which the Society will host in Dublin in October of 2019. Although this is some time off, it is a major undertaking and we have already embarked on the early stages of preparation. I encourage all Society members to support preparation for FENS 2019 and to consider participating, in order that the Society can organise and host an event to be proud of. It is important to note that the very first European Nutrition Conference was organized in 1973 by the Nutrition Society and held in Cambridge, and that FENS was founded during the third such conference in 1979. Thus, the Dublin Congress will coincide with the 40th anniversary of FENS. There is much to celebrate… ■

Some recollections of my scientific life

Professor Roger Whitehead

I was in the first Grammar School intake following the 1944 Education Act. If I had been one year older I would have had no scientific career! I quickly found an interest in the sciences but looking back I can see it was essentially the practical application of science rather than the fundamental theory that attracted me most. I wonder, therefore, why I did not study medicine, but biochemistry was the emerging subject of the day and this is what I went on to study. It was in the final year of my PhD at the University of Leeds, and the need to think of a job, that I saw the Medical Research Council had a research unit at Mulago Hospital, Makerere University, Uganda dealing with infantile malnutrition. I had found a vocation.

The Unit I joined had been established to study the aetiology and treatment of kwashiorkor – the prevalent form of protein-energy malnutrition in southern Uganda. As the biochemist, my initial research concentrated on metabolic abnormalities especially those that might influence treatment regimens. I showed the megaloblastic, fatty liver had difficulties in the utilisation and catabolism of essential aminoacids such as histidine, lysine, phenylalanine and tyrosine. This research influenced our quantitative approach to dietary protein therapies. I was, however, becoming influenced by the work of my paediatric and nutritional colleagues on the much more prevalent, subclinical, but still damaging forms of protein and energy deficiency. The thrust of my research switched to the possibility of using biochemical tests for their detection such as the imbalance that gradually developed between various essential amino-acids in the plasma and the reduced urinary excretion of hydroxyproline which was related to collagen synthesis and thus impaired growth. In collaboration with younger scientists I also encouraged studies into the influence of hormonal balance, particularly between insulin and cortisol on these metabolic issues, but my interests were becoming even more broadly based. Socioeconomic factors, public health problems and the interaction between nutrition and infection began to dominate my thoughts. I was no longer a biochemist but a nutritional scientist, a speciality where a lateral vision is essential.

I worked in Uganda most of the time between 1959 and 1973 with a two year inspirational gap in Cambridge between 1966 and 1968 with Elsie Widdowson. This provided the opportunity to test some of the biochemical hypotheses from our Ugandan studies in controlled animal investigations. I did not want to leave Uganda even though it was to be the Director of the MRC Dunn Nutrition Laboratory in Cambridge, but political events in Kampala forced the closure of our unit there. As part of the deal I was, however, allowed to establish another nutritional research field station in the village of Keneba in The Gambia. Although this did enable me to pursue my primary scientific interests, day to day contact with the work in The Gambia from Cambridge had to be conducted with tolerant colleagues via amateur radio!

The early 1970's proved to be a pivotal time for the growth of nutritional science in the UK. It is difficult nowadays to comprehend that prior to this the perceived wisdom was that now that all the essential micronutrients and their functional role had been identified the only nutritional problems worthy of medical consideration were those of the developing countries. A committee under the chairmanship of Professor Neuberger was to correct this impression. Until this time the Dunn Nutrition Laboratory had been famous for its vitamin research. It was now to be given a much more broadly based mandate. Over the following years we were able to establish a multidisciplinary team of doctors and scientists, many of whom subsequently become world leaders in their speciality, working on a range of nutritionally related health issues including obesity, gastrointestinal function and health, cancer, the treatment of premature and small-for-dates babies, micronutrient status, osteoporosis and bone health. As well as conducting fundamental research my colleagues and I were also actively involved in providing scientific advice to UK government ministries as well as to international bodies responsible for nutrition and health. Connected with this concordat between the MRC and the UK government was the 1991 publication of the DH/ MAFF COMA Report on 'Dietary Reference Values for Food Energy and Nutrients for the United Kingdom'. I was the chairman of the committee responsible. It was also recognised that governmental health targets were unlikely to be met without the understanding and knowledgeable collaboration of national and internationally based food industries. I actively tried to achieve this co-operation. These activities inevitably limited the time I could spend on my own scientific interests in nutrition and tropical health. I was only able to continue with this work via the support and collaboration of talented young colleagues.

The initial work in The Gambia following the transfer of our research programme from Uganda still concentrated on nutrition/infection relationships and differences in aetiology and pathophysiology between kwashiorkor and marasmus. This quickly led to a recognition of the importance of maternal nutritional adequacy during pregnancy, especially in women conducting heavy manual agricultural work in the fields leading to small-for-dates babies and subsequent poor infant growth. To prove that the prevalence of low birth weights could be significantly alleviated by a more adequate diet, pregnant mothers were offered a village made ground nut based biscuit provided under controlled conditions. Interestingly, the basic recipe

for the biscuit was one pioneered years before in Uganda for the treatment of kwashiorkor!

This interest in infant feeding and growth patterns stimulated a parallel study on diet and the growth of babies of well-fed breast-feeding mothers in Cambridge. We had come to realise that current dietary energy recommendations for young infants were incompatible with the view that the breast-milk produced by the average motivated mother was adequate for the total needs of an infant until 4-6 months of age. Following a re-analysis of available breast-milk intake data in the literature we hypothesised that the energy needs of babies had been overestimated between 1 to 6 months and that this was the reason for the conflict between the two sets of recommendations. However, the literature data we used had all been collected using test-weighing techniques and potentially open to measurement error. This led to one of the most important developments during my directorship of the Dunn. I was able to get the support needed for the late Andy Coward to develop his pioneering stable isotope techniques to measure accurately not only the energy requirements of infants during the first12 months of their lives, but also their breast-milk intake. Exclusive breast-feeding was indeed shown to be adequate up to 6 months. We also had the temerity to suggest to the paediatric fraternity that the infant growth trajectory patterns in routine use at that time were misleadingly inaccurate in terms of assessing nutritional adequacy. A finding they accepted.

These recollections describe the evolution of a theoretical biochemist to a more practically orientated nutritional scientist. I have been lucky that the medical profession has been sympathetic to what I have tried to do. Although not medically qualified I was made an honorary Fellow of both the Royal College of Physicians as well as the Royal College of Paediatrics and Child Health. Although not having any formal nutritional qualification, I was recently made an honorary Fellow of the Nutrition Society.

I hope nutritional research will be able to continue to develop within dedicated multidisciplinary environments such as the ones I have enjoyed and not split up to serve the short term objectives of other disciplines. ■

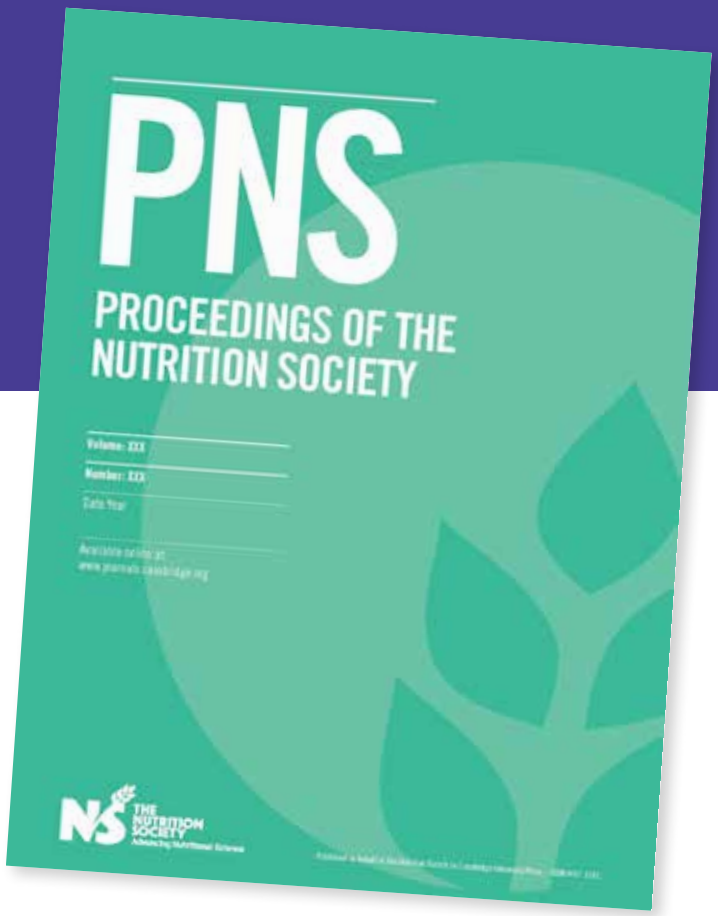
Professor Roger Whitehead being presented his Fellowship Award by Past President, Professor Catherine Geissler

RG Whitehead

Professor Whitehead is a former President of the Society (1989-1992) and was made an Honorary Member (now Fellow) in 2000. He received a CBE in 1992.

Dr Janice Drew

– the New Editor-in-Chief of PNS



Dr Janice Drew has recently been appointed as the new Editor-in-Chief of the Proceedings, (PNS) succeeding Assoociate Professor Maria O'Sullivan who did a sterling job on behalf of the Society. We thank Maria for her considerable contribution.

Dr Janice Drew is a Senior Research Fellow at the Rowett Institute of Nutrition and Health within the School of Medicine, Medical Sciences and Nutrition at the University of Aberdeen. She received her BSc in Horticulture from the University of Strathclyde (Glasgow) in 1991. Her honours project investigating bioactive phytochemicals produced from genetically transformed root cultures prompted pursuit of postgraduate research at the University of Durham where she completed her PhD in plant molecular biology in 1994. Subsequently, she trained as a postdoctoral fellow in molecular neuroendocrinology at the Rowett, investigating G-protein coupled receptor signalling, circadian rhythms and appetite and energy balance. This led to her appointment as a principal investigator at the Rowett, developing a new Scottish Government funded research programme investigating molecular mechanisms linking diet and cancer.

Janice Drew has been a peer reviewer for a number of journals and international funding agencies, guest editing special issues and contributing to major reviews on diet and cancer. Her interest in the political forces that direct science led to her participation in science pairing schemes hosted at the Scottish, UK and European Parliaments. Her proactive participation in pairing/shadowing schemes with MSPs, MPs, MEPs and civil servants has led to the development of a keen sense of the importance of science in policy-related research and its contribution to developing policy.

Janice Drew has been an invited speaker at international conferences, including Nutrition Society meetings. She organised the Society symposium on Obesity-related cancers (Summer Meeting 2011, 70th Anniversary Conference on 'From plough through practice to policy'). She has been a member of the Society since 2000 and joined the Editorial Board of PNS in 2009, becoming Deputy Editor in 2015 and Editor-in-Chief (EiC) from August 2016.

Over recent years and following the Rowett merger with the University of Aberdeen she led and designed a new Masters programme in molecular nutrition and specialist courses within the Masters in Human Nutrition. In addition to these teaching responsibilities, she has developed new research programmes on diet and metabolic health, ageing and healthy lifespan as part of The Scottish Government's funded portfolio of Strategic Research. In her previous research she developed systems approaches incorporating genomic, proteomic, biochemical and physiological analysis, which are now being applied to identify molecular mechanisms linking diet, metabolic health and healthy lifespan. She has pioneered applications of the GenomeLab System technology platform at the University of Aberdeen to design custom gene signature assays profiling pathology, health status and inter-individual variation in responses to diet and exercise interventions to restore or maintain health. She has been interested in understanding inter-individual variation and the connections between our genetics, diet and environment and how this is key to designing and delivering effective interventions and providing appropriate advice and motivation to maintain a healthy diet and lifestyle.

Janice Drew brings a broad and diverse expertise to the role of EiC of PNS and plans to build on the legacy of Maria O'Sullivan. The intention is to further develop the reputation of PNS as a publication that is accessible and informative on the most pressing issues in nutrition today. This requires close interaction with the Society's Science Committee. The dedicated work of the Science Committee and the Society's conference organisers is vital for successful production of PNS review articles on nutrition science, ensuring that the content is current and relevant. The other key component is an active, skilled and knowledgeable Editorial Board to ensure the high standards set for PNS publications. Hence, this will be on the agenda for her first Editorial Board meeting as EiC and she is looking forward to working with the editorial team and also recruiting and developing new expertise to the Editorial Board in the coming year. ■

Personalised Communication – a New Direction

Mark Hollingsworth, Chief Executive Officer

At the time of writing this article (early November 2016) I had just written a letter to a lady member, who joined the Nutrition Society in 1956 and, after 60 years of continuous membership, is most likely the Society's longest serving member. I signed the letter on our headed notepaper with my 30-year-old fountain pen and briefly reflected this was the first time I had physically signed a letter in nearly 6 months. I communicate with one or more members of the Society virtually every day of the week throughout the year, but rarely do I ever write a letter in a traditional sense, and sign it with a pen. How much communication has changed over the past 15 years.

When I joined the society as Chief Executive in September 2014 the Trustees asked me to consider, and be alert to, the many challenges and opportunities facing a scientific Learned Society in the 21st century. Two of the largest challenges that continue to occupy my thoughts are how a scientific Learned Society can remain relevant in the 21st century (becoming contemporary without losing its history and traditions), and how does a Society manage communications in a world where we are now, I would suggest, over-communicated to in a manner our predecessors would have found incomprehensible.

As an example, a recent study in Canada, carried out by Microsoft, researched 2,000 individuals and their concentration span – they were monitored through electroencephalograms. The study found individuals living a modern digital lifestyle struggled to focus in environments where prolonged attention is needed. The average attention span now was just eight seconds. With so much information being channeled to us on a daily basis how can a scientific Learned Society communicate its relevance and make its voice heard, especially when it is battling with potentially increasingly limited attention spans?

In managing these challenges, one of the projects the Trustees and staff have been working on is the redesign of the Society's website, which was last updated in 2011. Empirical evidence, and advice from our technical supporters, led us to a conclusion that a modern website has to be 'clean' and easy to navigate. There is no room for clutter now, particularly with the limited attention span people are bringing to websites. In addition, the 'three click' concept applies to websites – the average user will tolerate only a maximum of three consecutive clicks on a website, and if they have not found what they are looking for at that stage, they will leave. Our website is due to be launched at the beginning of December, so by the time you are reading this Gazette article it should be live. It has been tested by a cross-section of our members and I do hope that you will find it a significant improvement on our past website.

A further challenge in managing our communications has been the growing complexity and scope of the subject of nutritional science. The Society has created a governance structure which enables the Trustees to receive advice from a range of dedicated members, such as the Society's advisory Council and the three Theme Leaders. However these members have no formal vehicle with which to firstly communicate with the members in their constituency area, and secondly for the members to communicate with them. It therefore follows they are very limited in their ability to advise the Board of Trustees on what the constituents members needs and issues are.

To help resolve this issue (and several others) the Trustees made the decision a year ago to bring the membership services function back into the Society's office from its outsourced host, Cambridge University Press, and then to build a modern membership communication system.

As we researched best practice in the world of communications in a social media and digital age, one of the areas of interest to us became the increasingly effective use of online forums or communities. These interactions take place 24 hours a day, seven days a week, 365 days of the year, are constantly live, and allow for debate and communication to take place in a controlled environment away from people's email in-boxes. Moreover, the forums/communities can be narrowly linked to a very specific subject if required, or be very broad in nature if necessary.

Now, when members join or renew their membership into this new system (in a new area of the website called 'My Membership') they have the opportunity to select a number of areas of nutritional science they wish to receive communications on. Once members begin to populate these defined areas (or 'communities' as we are now calling them) it will be possible for the Society, and if applicable the relevant Theme Leader or Council member, to begin a meaningful dialogue with them. And this will work both ways. For the Society to communicate its relevance, it must understand the needs of its members as well as the ever-changing environment in which the science of nutrition is developing. 'My Membership' is one of the most important areas of the new website. It is an area where members will be able to update their profile, renew their membership, sign up for conferences and events, and take part in communities and discussions.

When I signed the letter with my pen, I was conscious of a sense of connection with this very long serving member. It is sadly a connection that I do not often feel when I quickly type an email and press 'send'. However, in establishing this new membership function within the offices of the Society, it is my hope that every member will develop a strong personal connection with us. A strong sense of connection will help reinforce the relevance of the work of the Society in the life of the member.

On a personal level I sometimes feel I stand on the edge of another age, trying to retain its dignity and serenity in spite of all the harassment of the modern world. Enabling each member of our Society to personalise their communication needs is, I suggest, an important first step in perhaps rediscovering that dignity, calmness and sense of control, which is all too easily lost in the never-ending busy communication noise of modern life. I hope you will take advantage of this new development in our Society's evolution. ■

The Nutrition Society Awards

Professor Paul Trayhurn, Honorary Publications Officer

The Nutrition Society, like other UK as well as overseas and international Scientific Societies, has several prestigious awards which recognise substantial contributions to the subject. The Society awards have been established at different times on a somewhat ad hoc basis, reflecting specific needs and interest groups at various points in our history. As a consequence, the current awards do not reflect the full spectrum of nutritional science and there is a sense of imbalance in the portfolio. This risks the unfortunate perception that the Society is less interested in some areas of nutrition than in others.

The established awards are:

(i) Cuthbertson. Awarded to "scientists or clinicians at an early stage of their career for excellence in clinical nutrition and/or metabolism research providing an evidence base for clinical practice". Scientists or clinicians should be within 15 years of their higher degree at application and the work should be of clear relevance to nutritional management in patient care.

(ii) Silver Medal. This has been awarded annually since 1991 for "scientific excellence in the field of nutrition". Candidates must be within 15 years of higher degree graduation at application and the award is not restricted to any particular area.

(iii) Public Health. This medal "recognises excellence in the field of public health nutrition" and candidates are expected to have up to (but no more than) 20 years' relevant experience.

(iv) Julie Wallace. The Julie Wallace Lecture, in memory of Professor Julie Wallace for her sustained commitment to supporting and promoting early career researchers, is an award that "recognises early stage scientific excellence in the field of nutrition."

The current awards are directed towards younger scientists, or those in mid-career; they are not senior awards and indeed senior scientists are specifically excluded. While there is targeted recognition for "clinical nutrition" and for "public health", there are no specific awards for basic science (molecular/cellular/genetics/nutrigenomics) or physiology/metabolism/ agricultural nutrition (nutrition of farm animals).

The Trustees have agreed that our Awards should encompass each of the key areas of nutritional science, and that as such an appropriate portfolio of senior awards should be established to reflect the full spectrum of the subject. Such awards will ensure that each of the core areas of nutrition are recognised and that scientists in those areas will feel fully enfranchised by the Society. The focus on senior members (in practise having no upper limit on age or career stage) will reflect and endorse the highest levels of career scientific achievement.

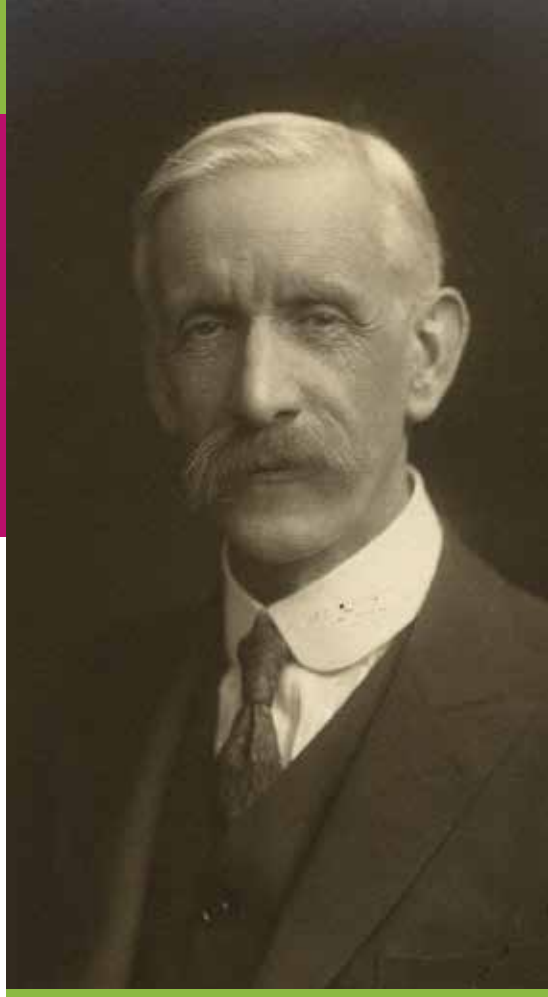
Two new awards have been established – one for "molecular & cellular nutrition" and the other for "whole-body metabolism-animal nutrition" – and the public health nutrition award has been re-configured.

The portfolio of senior awards is now:

(i) Gowland Hopkins Award for Cellular & Molecular Nutrition. This is named after Sir Frederick Gowland Hopkins OM FRS PRS, who received the Nobel Prize in Physiology or Medicine in 1929 for the discovery of vitamins. Sir Frederick was a Founder of the Society.

(ii) Blaxter Award for Whole Body Metabolism-Animal Nutrition. This is named after Sir Kenneth Blaxter FRS PRSE. Sir Kenneth, who directed the Rowett Research Institute from 1965-82, was a leading figure in energy metabolism and animal nutrition in the second half of the last century and was a former President of the Society (1974-77).

(iii) Widdowson Award for Public Health Nutrition. This is the new name for the current public health nutrition award, and is named after Dr Elsie Widdowson CH CBE FRS who was a pioneering figure in nutrition in the middle decades of the last century; she is also a former President of the Society (1977-80).



Founding member:
Sir Frederick Gowland Hopkins OM FRS PRS

The Gold, Silver, and Cuthbertson Medals, as well as the Julie Wallace Lecture, will remain unchanged – both in remit and frequency. The Gowland Hopkins, Blaxter and Widdowson awards will be presented in rotation every third year, with one of these senior awards being given each year. The Awardee will present a major lecture at a Society meeting (probably the Summer Meeting) which is expected to be published in the 'Proceedings'. Details of the nominating/application procedure will be described on the new website, together with other information on our other Awards.

The Trustees hope that members will welcome the desire for the Society's major awards to reflect the full spectrum of nutritional science and to acknowledge the highest levels of achievement. ■

Your best investment for the future!

Penny Hunking, Honorary Training and Education Officer

It is hard to dispute that education is vital to us all. Education for life skills is fundamental, but from there on education can be interpreted in a number of ways; it can teach us about the world around and help us answer a host of questions in life. It is also vital in the workplace, enabling us to perform with knowledge and reassurance.

Nutrition is an ever expanding field which is becoming increasingly competitive so there has never been a more important time to keep up with new research, policy and guidelines. Continuous professional development (CPD) is absolutely necessary on many levels but particularly to update and maintain nutrition knowledge and learn new skills. Education is vitally important but so is training; there is a distinct difference. Never before has the importance of undertaking bespoke training on various areas within the nutrition area – not just knowing about nutrition science, but about how to do something with that knowledge – been more vital than today.

The Society's Training and Education events have been developed to facilitate the practical application of nutritional science through an exciting mix of CPD endorsed theoretical and practical workshops, training sessions and courses. 'Dietary Assessment Methods' and 'Statistics for Nutrition Research' continue to be extremely popular – often selling out well in advance – and on the annual training calendar, but we do not sit on our laurels. Nutritionists work in a variety of areas either at an individual or population level within a range of areas of nutrition science. There will be common training needs across the groups, but we recognise there are often more specific training needs within various groups.

As a start, a training needs analysis was recently undertaken through the Nutritionists in Industry. The results were quite apparent. The survey ascertained the clear need for more knowledge-based training in food and nutrition policies in general and, in particular, improved understanding of how to influence policy development and implementation. In addition, many respondents believed they would benefit from soft skills training to address challenging demands and conversations when managing and communicating scientific knowledge to non-scientific audiences. To help meet some of these needs, a new workshop entitled 'Introduction to Food Policy' has been developed and is one set to make a regular appearance in the annual training calendar.

Other regular additions will include webinars and we have already started to explore and deliver this training medium. Webinars do not, and cannot of course, replace face to face learning, but do offer a great deal of flexibility to both deliverer and course participant alike as they are accessible from anywhere, on any device. Webinars avoid the need for those taking part to be in any one physical location offering a huge advantage to all, particularly for those not based in the UK. To date we have attracted a number of International delegates from other countries including Denmark, Austria, Ireland, Portugal and the USA. In theory, there is no maximum number of attendees who can take part in a webinar but it is currently our intention to keep numbers relatively small to allow for participants to ask questions that are clearly answered.

Training and Education does not confine itself entirely to the UK these days and since 2012 has hosted training sessions at African Nutrition Epidemiology Conference (ANEC) V in South Africa, ANEC VI in Ghana, The Federation of Africa Nutrition Societies (FANUS) in Tanzania and most recently at ANEC VII in Morocco where Training and Education hosted two training events. It is planned to continue to develop overseas relationships.

Training and Education is here to stay and here for YOU. If you have any ideas for new workshops or webinars that can help address your training needs then do let us know. ■

Email: training@nutritionsociety.org

Networking for early career nutritionist workshop at ANEC VII

One and one makes three: the National Obesity Forum's report revisited

Professor Bruce Griffin, Theme Leader – Whole Body Metabolism

As we approach the festive season and the most fattening time of year for humans, it seemed timely to re-visit the controversial report from the National Obesity Forum, which encouraged us to 'Eat fat, cut the carbs and avoid snacking to reverse obesity and type 2 diabetes' (https://phcuk.org/wp-content/uploads/2016/05/The-Real-Food-Lifestyle.png). While the report was lambasted by experts and denounced by members of its own forum at the time of its release, it contained enough evidence-based nutrition to give disturbing credibility to many of its scientifically unfounded opinions. For the most part, it's a diatribe that preys on the credulity of the public to believe that we should dismiss guidelines to limit intake of saturated fat, and avoid eating carbohydrates, because they make us fat and cause diabetes. What follows is commentary on some of the more contentious points, which continue to breed mistrust in our national dietary guidelines.

'Eating fat does not make you fat'. To qualify, this really depends on how much fat you eat. An excessive intake of energy from fat or carbohydrate will increase body weight over time, especially with a sedentary lifestyle. So what is the strongest evidence, if any, to restrict one macronutrient over the other? Rationale for the preferential restriction of fat is that contains more than twice the amount of energy per gram, and is also less satiating than carbohydrate. Conversely, humans have a propensity to passively overcome sweet foods, as evidenced from the significant contribution of free sugars to increased body weight in populations. However, on balance, the weight of evidence in UK and US populations shows that energy from dietary fat, as a nutrient and in fat-rich foods, makes a greater contribution to body weight than dietary carbohydrate. This is in abject opposition to the underlying ideology of this report, that carbohydrate causes obesity and diabetes because it's more 'insulinogenic' that fat. It's all too easy, but overly simplistic to believe that carbohydrate is fattening because it stimulates insulin, the anabolic 'hormone of plenty'. This carbohydrate theory of obesity confuses the well-established physiological roles of insulin, which is to make and store fat, with the carbohydrate-induced accumulation of fat in adipocytes, for which there is relatively little evidence. On the contrary, there is strong evidence that insulin can be dissociated from obesity under conditions of metabolic and healthy 'obesity'. Anti-sugar rhetoric that fructose is the cause of the obesity epidemic is also inconsistent with this theory, since fructose is not 'insulinogenic' and has no dependence on insulin for its lipogenic effects. Moreover, obesity and hyper-insulinaemia are associated with insulin resistance and the failure of insulin action in tissues that store excess fat.

'Saturated fat does not cause heart disease'. Well not directly, and certainly not on its own. There is incontrovertible evidence that certain saturated fatty acids (SFA) in certain foods contribute to the development of coronary heart disease (CHD), primarily by raising serum LDL cholesterol. This indirect, three-way relationship between SFA, LDL and CHD explains why, in part, meta-analyses can find no evidence for a direct link between SFA and CHD. The report goes on to disparage our current dietary guidelines by saying they '… erroneously focus on total fat and SFA and not food sources and fatty acid subtypes', and should appreciate that 'Full fat dairy might be protective'. This is ironic, given that these are the very same reasons why meta-analyses have produced erroneous, misleading results. The removal of studies that have been confounded by the effects of harmful trans fatty acids, and potentially cardio-protective fatty acids from dairy from the highly cited meta-analysis of Chowhudry et al (2014), produces significant positive associations between saturated fat and CHD.

'Limit starchy and refined carbs to prevent and reverse type-2 diabetes'. Limiting intake of free sugar will help to prevent dental caries and reduce obesity in populations, but emphasis here is on the remarkable effects of cutting-out carbs on weight loss and improving metabolic control in diabetes. What's important to appreciate is that these effects are produced by reduced energy intake, chiefly by limiting food choice, and are not the result of high-fat induced ketosis. Ketotic diets can be very effective in reducing energy intake, but they are extreme and contraindicated as a viable and sustainable option for reducing obesity and its related cardio-metabolic risk in populations. What is most shocking under the heading of diabetes, is the failure to mention the need to increase dietary fibre, which has been unequivocally linked to improvements in diabetic control and reduced cardiovascular risk.

'Industrial vegetable oils should be avoided'. This largely refers to n-6 polyunsaturated fatty acids (PUFA), the rationale being that since PUFA oxidises rapidly in foods, it will do the same in the body, increasing oxidative stress and causing disease. However, there is no evidence that dietary n-6 PUFA promotes cardiovascular disease by increasing oxidative stress. Oxidised lipids in serum lipoprotein remnants may well have a role in promoting atherosclerosis, but there is over whelming evidence to support a cardio-protective role for dietary PUFA as the most effective substitute for saturated fat and lowering serum LDL cholesterol.

'You cannot outrun a bad diet'. Perhaps not, but to suggest that physical activity and nutrition are unrelated with respect to their impact on the metabolic handling of macronutrients, health and disease risk is nonsense. While exercise is of paramount importance to cardiovascular health, it's a relatively ineffective in promoting weight loss, because energy balance is tightly regulated to preserve body weight across a range of physical activity. Nevertheless, a 20 minute bout of brisk walking produces marked functional effects on the removal of dietary fat from the postprandial circulation, which has major implications for reducing cardio-metabolic risk.

Thankfully, I am in complete agreement with the final point in the report that 'Evidence-based nutrition should be incorporated into the educational curriculum of all healthcare workers.' Sadly, this will be too late for the authors of this report. ■

Should citation metrics play a key role in REF?

Professor Paul Trayhurn, Honorary Publications Officer

Those members of the Society who work in UK universities will be only too aware of the Research Excellence Framework (REF) and the importance that their institutions place on it. The formal evaluation of UK university research began in 1986 as the 'Research Selectivity Exercise' and since then assessments have been made in 1989, 1992, 1996, 2001, 2008 and 2014. The process was renamed the 'Research Assessment Exercise' (RAE) in 1992 and became the REF for 2014. The next REF is expected to be in 2020/2021.

As the system has evolved there have been changes in what is required, particularly in the number of publications to be submitted and who is eligible to participate. In the case of the number of publications, the 1986 assessment simply required the 'best' 5 publications from the previous 5 years for the whole unit of assessment from an institution, while since 1996 the requirement has been 4 publications for each full-time staff member submitted. Further changes are envisaged following the Stern Review which appeared in July 2016. Arguably, the biggest change has come from the inclusion of 'impact' as part of the exercise, and this characterises the transition from the RAE to REF.

From the inception of research assessment on a national basis the quality of the published output has been much the most important component of the overall rating. Indeed, even with the introduction of 'impact', 65% of the overall weighting is accorded to the submitted publications – their originality, significance and rigour. As the system has developed, so has the complexity and financial costs. REF 2014 has been audited as costing £246 million, most of which – £212 million – is the direct cost to universities (averaging ~£1.5 million per institution). This may be a rather conservative figure, however, with up to £1 billion having been suggested as the true expenditure. The escalating costs of the RAE/REF led to the proposal, which was supported by Gordon Brown when Chancellor of the Exchequer, for a metrics-based approach employing citation data as an indicator of the quality and significance of the publications submitted.

The appropriateness of utilising citation data remains hotly debated and although some panels, particularly those in the sciences, were provided with this information for REF 2014, they were regarded as an adjunct to 'peer review'. It should be noted that the impact factor of the journal in which a publication appeared was not to be taken into account. Citation counts are, of course, easy to obtain at minimal, or no cost – whether through the Web of Science, Scopus or Google Scholar. The arguments against using citation data as the primary tool in RAE/REF include the fact that it is much less relevant to some areas (arts and humanities) than to others (sciences and medicine), and that the more recent the date of publication the less time there is for a paper to accumulate citations. A further argument, which is frequently raised, is that even a study shown to be wrong may become highly cited, but this is a relatively minor concern.

The principle argument employed against the widespread use of citation metrics is that it is no substitute for what is termed the 'gold standard' of peer review. Interestingly, while most analyses indicate that there is a close correlation between rankings based on citations and peer review, when differences are evident it is invariably concluded that citation counts are therefore unreliable. This seems a curious proposition, as I have noted before. A cited article will in effect have been through two distinct cycles of peer review. The first, of course, is from the journal that received, reviewed and accepted the article in question. The reviewers will have been selected for their expertise in the specific area of study that the article addresses. The second level of peer review comes from those in the same field who consider that the article is of sufficient interest and significance to be cited in their own subsequent publications.

In contrast, 'peer review' in the context of REF is a much more imprecise process. Most panel members will assess and calibrate several hundred individual articles (figures of 800 or more have been mentioned) over a few months. Although they will be within the broad remit of the particular panel, many – perhaps most – will be at the periphery, or beyond, the expertise of the panel member to which they are assigned. Those who have been on RAE/REF panels, or who have sat on Research Council Boards and other funding agencies, will recognise that this is indeed the case. The consequence is that articles are frequently subject to review and rating by panel members who are so distant from the area in question that an author would rightly consider it quite inappropriate if these same individuals had been selected as a 'peer reviewer' by the journal to which they had submitted the original manuscript.

This is not, of course, a criticism of RAE/REF panel members who are faced with the considerable challenge of making a fair, balanced and dispassionate assessment of the wide range of material submitted. But it does seem strange to object to the use of citation metrics on the basis of the supposed supremacy of 'peer review' as actually practised. The escalating costs of REF will lead to a more simplified metrics-based approach to research assessment – and surely the academic community itself would not wish to see hundreds of millions of pounds periodically spent not on research but on its evaluation? ■

Public Health Nutrition Second Edition… coming soon!

Professor Susan Lanham-New, *Editor-in-Chief of the NS Textbook Series* & Professor of Nutrition and Head of Department, University of Surrey

Cassandra Ellis, *Assistant Editor, NS Textbook Series,* The Nutrition Society

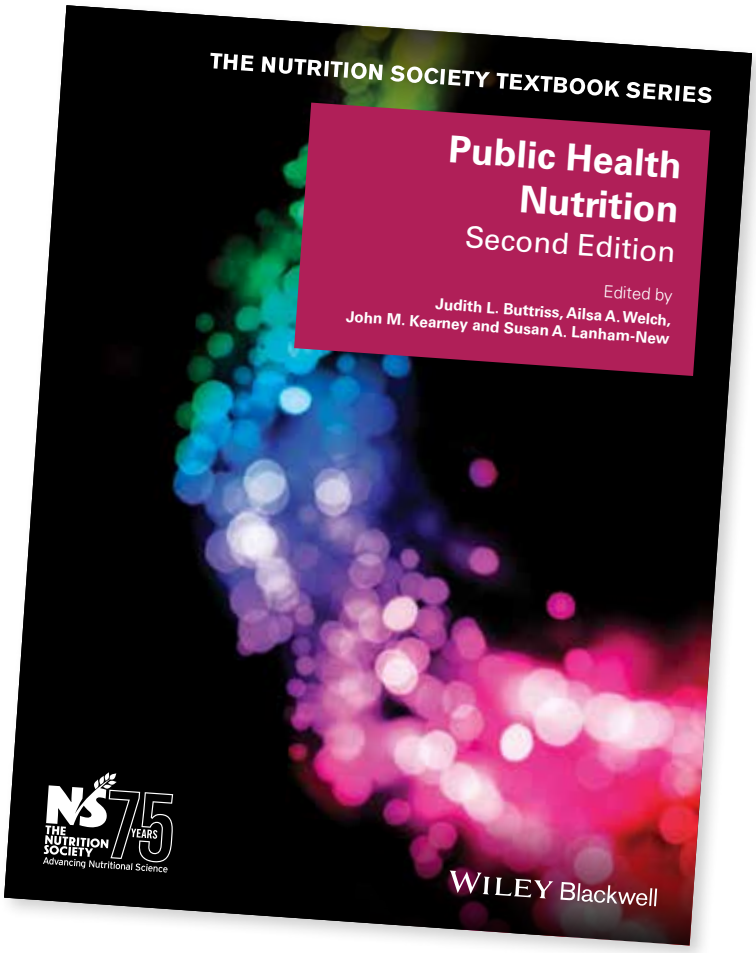
With over 11,500 copies sold globally and translations into Greek, Indonesian and Spanish, the Public Health Nutrition textbook was an undoubted success. It has been 12 years since the publication of the first edition, and much has changed in the area over this time.

We are absolutely delighted to introduce the second edition of Public Health Nutrition which represents a complete re-write, reflecting an explosion of research in this area, changes to nutrition policy and shifts in the population's diet and health.

We are indebted to our Editors; Senior Editor, Professor Judith Buttriss, British Nutrition Foundation; Editors, Professor Ailsa Welch, University of East Anglia and Dr John Kearney, Dublin Institute of Technology. The team have worked tirelessly to bring this latest edition to fruition. After months of planning and consultation with expert advisory groups, the manuscript for the second edition is complete and production is well underway.

We are also honoured to announce that this edition has a Royal seal of approval, with the Foreword written by Her Royal Highness The Princess Royal. As patron of the British Nutrition Foundation since 1988, Her Royal Highness has a long standing connection to nutrition and we feel very privileged to have her write the Foreword.

It is gratifying that we have so many global experts in public health nutrition contributing to make this textbook a comprehensive review. There are contributors from all areas of public health nutrition including the World Health Organisation, the World Cancer Research Fund, the Food and Agriculture Organisation of the United Nations and NHS England, as well as many leading academics from esteemed, global universities.



The Editorial Team have worked meticulously to ensure a clear, concise structure making it a useful resource for students and practitioners alike. The 30 chapters have been divided into clearly defined sections covering five key areas of public health nutrition. The first section outlines assessment tools providing an introduction to concepts and traditional methodologies before focusing on contemporary measures and new technology. After laying the foundation, it moves on to considering the application of PHN tools in a review of the current evidence. It outlines dietary patterns and examines nutrition through the lifecycle, from pre-conception to old age, considering the public health challenges and risk factors at each phase. Section three reviews the relationship between diet and disease with particular attention being given to obesity and its comorbidities before discussing the impact of environmental factors on public health and dietary behaviours. The final section outlines current public health strategies, policies and approaches providing a complete review of all aspects of Public Health Nutrition.

Public Health Nutrition second edition will be available in your book shop and library from spring 2017… please do enjoy! ■

Irish Section Report

Professor Lorraine Brennan,
Secretary, Irish Section

The Irish section had a busy 2016 with highlights including the postgraduate meeting and the hosting of the main Nutrition Society Summer Meeting.

The Postgraduate Meeting was hosted by University College Cork in February and saw a record number of oral presentations with over 40 postgraduate students presenting at the event. I would like to thank Aoife Hayes and Laura Kehoe for all their hard work in making this event a success.

The big event of the summer was the Summer Meeting hosted in University College Dublin (UCD). The event attracted nearly 400 people to UCD. A highlight was the excellent plenary lectures delivered each day in the main symposia. The first symposium covered new technologies in dietary assessment where we heard all about smartphone picture based technologies from Professor Carol Boushey. Professor Hannelore Daniel delivered a stimulating overview of metabolic phenotyping in nutrition research during her Rank Prize lecture. Symposium two detailed the potential use of dietary biomarkers and Professor Feskens gave an overview of a European collaborative project in this field. Symposia three and four ran in parallel and both attracted a large number of attendees. Symposium three covered novel strategies for behaviour change with Professor Redfern giving an overview of smart health and innovations. While in the parallel session, Professor Ordovas spoke about genetic and epigenetics and their role in nutrition research. The final symposium covered advanced phenotyping in nutrition research and Professor Blaak gave details of her elegant work using stable isotopes to follow human metabolism.

During our ASM I was elected Secretary for the Irish section and I look very much forward to working with you all over the coming years. I would like to thank Dr Breige McNulty for all her hard work for the section and the Society over the past three years. Dr Janette Walton finished her term as Membership Secretary and I would like to thank her for all the energy she put into this role. Dr Michelle McKinley has now taken over this role. Aoife Hayes finished her term as Student Representative and I would also like to thank her for all her efforts over the last two years. Additionally, we welcome the following new members to our committee: Dr Alice Lucey, Dr Mary McCann, Dr Clare Corish and Laura Kehoe. Finally, I look forward to the year ahead and the planning for the 2017 meetings! ■

Update from the Scottish Section

Dr Spiridoula Athanasiadou,
Secretary, Scottish Section

Since the last Gazette, the members of the Scottish Section have been busy putting together the programme for the 2017 Spring Meeting. The meeting is on "Nutrition and Exercise for Health and Performance" and will be held at the University of Stirling, on the 28-29 of March 2017. The aim of the meeting is to present the latest cutting-edge research that demonstrates the power of combining exercise and nutrition for promoting health, well-being and performance. Specifically, the interaction between nutrition and exercise will be presented in the context of healthy ageing and improving metabolic health. The scientific programme will provide up-to-date opinion and research from international experts across the field of nutrition, exercise and health and with the topic areas divided into three main sessions over two days.

The Scientific Programme Organisers are Dr Oliver Witard, University of Stirling, and Dr Derek Ball, Herriot Watt University. The programme has now been finalised and the speakers confirmed; all details including the full programme and delegates costs can be found on the Society website. As with all Society meetings, an application will be made for endorsement by the Association for Nutrition and British Dietetic Association for the Spring Meeting. The deadline for original communications is the 29 January 2017. We will be looking forward to welcoming you in Stirling.

We have started thinking about the 2018 Spring meeting, which will be held in Glasgow, with a likely theme on "Nutrient-nutrient interactions". We will be able to provide more detail as the programme develops. We are always looking to engage with our membership; if you are keen to join the committee or you have ideas for future symposia topics get in touch, please email office@nutritionsociety.org. We will have two vacancies in the committee from March 2017, so please come forward if you are interested in participating. The Scottish Section of Nutrition Society exists to provide a forum for nutrition education and research in Scotland and arrange research meetings easily accessible to Scottish members. ■

Cambridge Core: The new home of the Nutrition Society journals

Cambridge Core is the innovative new platform from Cambridge University Press, built on the foundations of user-centric platform design and development. It brings together over 32,000 ebooks and 380 journals published by Cambridge University Press and associated learned societies on a fast and intuitive platform. The platform is fully responsive for display on all devices; content will automatically resize to fit the screen size being used.

What does this mean for The Nutrition Society journals?

In addition to the site looking quite different and cleaner, there are also a number of important new features for researchers accessing journal content on Cambridge Core.

Introducing the new HTML Core Reader

Cambridge Core Reader provides the distraction-free reading experience of PDF, whilst maintaining the benefits of HTML functionality. This includes easy access to contextualised figures, tables and charts, a collapsible side panel for easy navigation and clear and improved linking to supporting multimedia materials and references.

Now including the RefME widget

Cambridge is the first publisher to work directly with RefME, and use their widget for citations. RefME provides over 7,500 citation styles for researchers to choose from. Researchers can easily search for the citation style required, and then download the appropriate citations.

High-powered facetted search

The extensive facets on the left hand side of a search results page enable researchers to refine searches to exact criteria, including format, keyword, publication date and subject area.

Cambridge Core is designed to allow for cross searching between UK and USA terms with both spelling variations and also includes title match functionality.

Bulk content actions and additional functionality

Cambridge Core allows researchers to select multiple items of content and perform an action, for example download all as a zipped PDF file, export citations, save to bookmarks, or view them in new tabs.

It is also possible to save and send articles to Dropbox, Google Drive and Kindle.

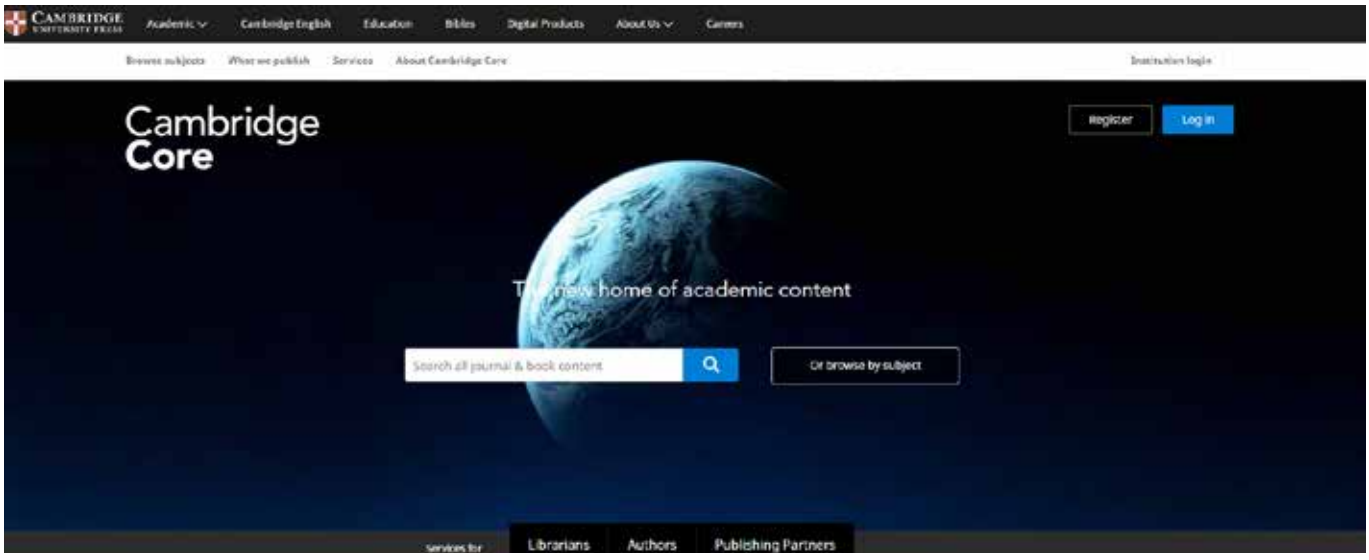
How was Cambridge Core built?

Cambridge Core is a user-centric platform and built with the needs of our users in mind, including surveys to over 9,000 users.

What's next for Cambridge Core?

One of the important features of Cambridge Core, is that it was built using agile methodology, that ensures the platform can be continually developed and new features added. We start by assessing the customer need for a suggested new feature, building these changes, testing and refining this before deploying them and then beginning over again with new requirements every few weeks.

Cambridge Core has been shortlisted for the 2016 UXUK Awards for user experience and FutureBook 'Platform of the Year' award, and we hope that the platform will continue to impress and meet the changing needs of the researchers and societies throughout the world.



Summer Conference 2017

Improving Nutrition in Metropolitan Areas

Networking during the drinks reception at the Summer 2016 Conference

Much of the world's population now lives in large conurbations. The characteristics of these metropolitan areas are that they are ethnically and socially diverse with a high proportion of food being consumed outside the home, or in the form of ready prepared meals. Food is widely available in these areas through a variety of retail outlets.

Adults and children in these areas spend much time travelling to work and school respectively, which can impact on the time spent on cooking and mealtimes increasing the frequency of convenient, 'on the go food'. Shift work is increasingly required to maintain transport infrastructures and food supply which can impact metabolic health. These conditions present major challenges for improving nutrition.

Recognising these challenges, this year's Summer Conference, held on 10-12 July 2017 at Kings College London, will consider how to improve nutrition in metropolitan areas. There will be five symposia beginning with an overview on the global impact of urbanization and the impact of cultural and ethnic diversity. Parallel sessions will then explore chrono-nutrition in the urban environment and the role of urban design in building a healthier environment. The fourth symposium will consider interventions to improve nutrition in urban areas before discussing the role of regulation and taxation in improving nutrition.

In addition to the five symposia, there will be the Rank Price Lecture, Silver Medal lecture and a senior Award lectures. There will be four Original Communication sessions across the three days and at the end of each day there will be Q&A sessions providing delegates an opportunity to further explore the topics covered. There will also be plenty of time scheduled to catch up with colleagues and network with new contacts during the gala dinner, drinks reception and regular refreshment breaks.

Local organisers, Peter Emery, Professor of Nutrition and Metabolism and Tom Sanders, Emeritus Professor of Nutrition & Dietetics, Kings College London, have brought together experts across the field to explore the impact of urban metropolis on diet and health. They have planned the programme to review the current evidence before focusing on interventions and strategies to improve public health in this area. ■

Save the Date: 5-6 December 2017

The Winter Conference in 2017 is being organised on 'Nutrition for cancer survival'. Theme Leaders, Dr Ailsa Welch, Public Health Nutrition, and Bernard Corfe, Cellular & Molecular Nutrition, are promoting interdisciplinary collaboration across their themes to draw together a highly participatory meeting on Nutrition and Cancer. There will be symposia on nutrition across the cancer journey, including:

- **Primary prevention**
- **Nutrition during treatment**
- **Diets for cancer survival**
- **Preventing recurrence**
- **Nutrition and Palliative Care**

Further details will be available soon.

THE NUTRITION SOCIETY
Advancing Nutritional Science

Events Calendar 2017

25 January: Nutritional Genomics Webinar: essential basics for nutrition and health professionals

16 – 17 February: Irish Section Postgraduate Conference, The Spencer Hotel, Dublin, Ireland

28 – 29 March: Spring Conference: Nutrition and Exercise for Health and Performance, Stirling, Scotland

30 April: Travel Grant Application deadline

21 – 23 June: Irish Section Conference: What Governs What We Eat? Queens University Belfast, Ireland

10 – 12 July: Summer Conference: Improving Nutrition in Metropolitan Areas, Kings College London

All abstract submission and early bird deadlines for conferences and workshops can be found on our website.