Julie Lovegrove, President’s Update

• Nutrition Greats: Sheila (Bingham) Rodwell
• Through Fat and Thin – A Journey with the Adipose Tissues
• Update on The British Journal of Nutrition
EDITORIAL

Dr Carrie Ruxton, Editor in Chief

I feel immensely privileged to be President of the Nutrition Society, a position I assumed at the Annual Charity Meeting in September, and would like to thank those who nominated me for this important role. My sincere thanks also go to Professor Philip Calder, our outgoing President. Philip has been an exemplary President, an excellent ambassador for nutrition science and has led the Society into the extremely strong position it is in today. I would like to congratulate him as he assumes a new position as President of the Federation of European Nutrition Societies (FENS), and look forward to continued collaborations between the Nutrition Society and FENS in future.

My first official engagement was the 13th FENS conference held in Dublin in October. As the hosting Society it was a fantastic initiation to my Presidency. The organisation of FENS has been ongoing within the Society for the past four years, and the immense work paid off when the conference exceeded all expectations. There were an impressive 1700 attendees from 78 countries in the sun filled Convention Centre Dublin.

I’m sure all attendees at FENS would agree, it was an unforgettable week. One of the new features of the conference was the archive exhibition based on the foundation and history of FENS. This was a remarkably informative exhibition, which attracted much attention throughout the conference. FENS was a resounding success thanks to all those involved in its meticulous planning, and in particular the organising committees and the Nutrition Society staff who made a substantive contribution to its smooth running and success.

A number of important new ventures were announced by the Society at FENS, including the launch of the scientific journal ‘Gut Microbiome’, a fully open access journal that will be published in partnership with Cambridge University Press. This is an exciting new edition to our portfolio of five highly respected journals. We are delighted that manuscript submissions are now open at: https://www.cambridge.org/core/journals/gut-microbiome. The Society also announced the publication of the 3rd edition of the Nutrition Society’s textbook ‘Introduction to Human Nutrition’, with outstanding illustrations in full colour. The textbook series has been translated into five languages, and has become established as a major resource for the teaching and research of nutrition science across the globe.

FENS also witnessed the launch of the new Academy of Nutritional Sciences (ANS), which unites several organisations in the nutrition arena to create a consistent evidence-based voice in nutrition. After years of planning, the Society is proud to share the inauguration of the ANS with its fellow members, the British Dietetic Association, Association for Nutrition and British Nutrition Foundation. We look forward to working together to fulfil the aims and ambitions of this great new initiative.

As the new President of the Nutrition Society, I look forward to working with our excellent Trustees and Advisory Council to advance the Society’s activities in nutritional science and its application to promote human and animal health. As one of the largest nutrition societies in the world, its global membership give it a unique and far reaching influence. My aim during my Presidency is to continue the excellent work of the Society, and to uphold its long history of excellent achievements.

My aspirations are to create further opportunities for students and early career researchers to engage with the Society, and to help secure future investment and growth in nutrition as a major discipline. I also wish to strengthen our relationship with the medical profession, to further extend the reach of the Society into the international arena, and to work more closely with other organisations, with the aim of achieving a common voice in evidence-based nutritional science. Another aim is to work towards enhancing transparency of the Society to ensure that our members are kept informed of major decisions and can engage with opportunities created by the Society. I look forward to working with many of you throughout my Presidency, and hope to see you at the Winter meeting on “Diet and Digestive Health” at the Royal Society of Medicine in December.

Update

Professor Julie Lovegrove, President

FROM THE PRESIDENT
Dietary assessment is undoubtedly the foundation of nutrition research – and Sheila Rodwell (known professionally as Bingham) has helped to make sure these foundations are solid. After having received her original training at Queen Elizabeth College, she joined the Medical Research Council’s Dunn Clinical Nutrition Centre (later Dunn Human Nutrition Unit) in Cambridge as Research Officer.

In her career, she realised that nutritional biomarkers and better experimental methods are crucial in order to improve dietary assessment and ultimately elucidate the link between diet and chronic diseases. Her research was fundamental in establishing urinary nitrogen as a recovery biomarker of protein intake, and the use of p-aminobenzolic acid (PABA) to ensure the completeness of 24h urine samples: both methods are now commonly used and have allowed a much better understanding of the effect of nutrition on health. The biomarker for sugar intake she developed allowed us to show for the first time the link between sugar intake and obesity – impossible with dietary records due to selective underreporting.

In one of her very early studies from 1981, Professor Rodwell measured the dietary intake in a Cambridgeshire village – at this time, fat intake was considerably higher than today consisting of approximately 40% of total energy. This work culminated eventually in the largest European prospective cohort study, the European Prospective Investigation into Cancer (EPIC), a prospective longitudinal study with more than 500,000 participants across Europe to investigate the link between diet and cancer. She was particularly involved in the Norfolk cohort of EPIC, where she played a leading part. EPIC and EPIC Norfolk allowed Professor Rodwell to investigate the associations between diet and disease on a much larger scale, but also to continue to refine dietary assessment methods.

Among her main research interests was the effect of diet on gastrointestinal cancers, and in particular the roles of dietary fibre and meat. While it is now commonly accepted that dietary fibre can reduce the risk of colorectal cancer, there has been considerable controversy in the past – fuelled, to some extent, by methodological differences. Professor Rodwell’s use of food diaries instead of the more common food-frequency questionnaires provided more reliable estimates of fibre intake and thereby better estimates of associations with health.

Her research into the link between red meat and cancer is most memorable for me, as it demonstrated the width of nutrition research from molecular mechanisms to implications for population health. It was also this research that kindled my interest in nutritional sciences – which I have never lost since. Elucidating the mechanism underlying the link between meat and cancer required the development of new experimental methods such as the extraction of DNA from formalin-fixed paraffin blocks or the isolation of exfoliated colonocytes. The results of this research greatly improved our understanding of the mechanisms underlying the link between meat intake and cancer, and have contributed significantly to the later IARC-WHO report on red and processed meat.

Professor Rodwell was a member of COMA and SACN, as well as Deputy Director of the MRC Dunn Human Nutrition Unit and founding Director of the MRC Centre for Nutritional Epidemiology in Cancer Prevention and Survival. Her research was fundamental to investigate the link between diet and chronic diseases and especially the prevention of cancer through diet. But she was not only a great scientist but also had a wonderful sense of humour and gave great support and mentoring to her students and post-docs – which she continued even when she was very ill towards the end of her life. Apart from her scientific contributions, Professor Rodwell’s main legacy is her former colleagues, students and post-docs who continue her work to investigate the connections between diet and chronic diseases all over the world. [2]

My research in nutrition has centred on the function of the adipose tissues – first brown, then white – and began when I joined the MRC Dunn Nutritional Laboratory in Cambridge in 1975 (with which Sir Frederick Gowland Hopkins was associated) as part of the newly-formed energy group. At the time, obesity was beginning to be recognised as a public health problem and I was concerned to explore the fundamentals of energy balance using animal models. The animal of choice was the ob/ob (Lepr^-/-Lepr^-) mouse, with its extreme obesity, which was then the most widely used model in obesity research. We were interested in whether metabolic factors, rather than ‘glutony and sloth’, underpin the development of obesity.

Our initial studies firmly demonstrated, through full energy balance measurements of young ob/ob mice pair-fed to the ad libitum intake of lean siblings, that obesity can develop without hypothyroidism. The obese mice exhibited a marked reduction in energy expenditure, and the component concerned to explore the fundamentals of energy balance using animal models. The animal of choice was the ob/ob (Lepr^-/-Lepr^-) mouse, with its extreme obesity, which was then the most widely used model in obesity research. We were interested in whether metabolic factors, rather than ‘glutony and sloth’, underpin the development of obesity.

In 1994 my research shifted to white adipose tissue (WAT) following identification of the mutant gene in ob/ob mice and the discovery of the adipocyte pleotropic hormone leptin. Since then, WAT has become established as a key endocrine organ with white adipocytes secreting a plethora of protein signals and factors (adipoines), these interacting with a variety of physiological systems including appetite regulation in the hypothalamus. One of the characteristics of WAT in obesity is that it becomes ‘inflamed’, secreting multiple cytokines and chemokines. We suggested in 2004 (in the EJN) that this inflammatory response may be consequent to hypoxia, adipocytes being oxygen-deprived as they expand and become distant from the vasculature; hypoxia was subsequently demonstrated in WAT of obese mice. Extensive studies in my Liverpool group showed pervasive effects of hypoxia on white adipocytes (human) including modulation of the expression of >1,300 genes, particularly those linked to glucose utilisation, lipid metabolism and cell death. The expression of leptin is increased while that of adiponectin – another adipocyte signature hormone – is decreased. Paralleling the changes in gene expression, leptin secretion is increased and adiponectin release decreased by hypoxia – proportional to the extent to which oxygen is reduced. Importantly, both glucose uptake and anaerobic glycolysis are markedly increased by hypoxia.

The effects of hypoxia on adipocyte function reflect the centrality of oxygen as a cellular nutrient. Indeed, oxygen is sometimes described as a nutrient in cell biology, but it is not regarded as such by nutritionists. This essentially reflects the route by which it enters the body – nose/ lungs rather than mouth/gastrointestinal tract. The lecture finished with the (innovative) proposition that oxygen should be considered as part of nutritional science – ‘the forgotten macronutrient’.

Log into your ‘My Membership’ area to watch the Gowland Hopkins Lecture in full. [1]
I am very honoured to have been appointed as the Editor-in-Chief of the British Journal of Nutrition (BJN). My thanks to Professor Graham Burdge for his sterling work as the previous EiC and for all the help he gave me when I took up this new role.

It’s a great time to be working in nutrition research and more and more scientists are engaged in research that addresses the global nutrition challenges. My ambition is that the BJN is the “go to” journal for the best nutrition research.

To help achieve that ambition, we are introducing some new initiatives.

Graphical abstracts
Graphical abstracts enhance the attractiveness of published articles and get them noticed. They are likely to lead to citations. We plan to make them a requirements for a number of our journals.

More high quality review articles
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Nutrition in the Food Industry

Kate Halliwell, Council Member for Industry

The importance of nutritionists and dietitians working in the food industry has never been more important. As the Nutrition Society’s Council member for the Food Industry, it is something I feel passionately about.

Looking across the supply chain, from growers to manufacturers to retailers and restaurants, we feed Britain. It is vital that the food industry engaged and up-to-date academically. I also encourage industry academics. I also encourage industry members to attend conferences, and suggest how it can best disseminate their knowledge remains up to date.

As the Council Member for Industry, I see it as my role to keep the Society up to date on areas of interest for the food industry and suggest how it can best disseminate information to a key group who are not academics. I also encourage industry nutritionists to join the Society. Keeping the food industry engaged and up-to-date is an important role for us all.

WHAT DOES AN INDUSTRY NUTRITIONIST DO?

Meg Longworth, won the Food and Drink Federation’s 2019 award for Registered Nutritionist/Dietitian working in industry which was sponsored by the Nutrition Society. Meg is Head of Nutrition and Public Health for Chartwells, the largest education foodservice provider in the UK. Meg’s achievements show how wide and varied an industry nutritionist’s role is.

Her role sees her working with food development teams to ensure menus meet nutrient needs, an example of which would be in reducing the amount of sugar in desserts by 20% since 2016, subsequently exceeding PHE’s targets. This was achieved through partnership with development chefs, schools, pupils, families and Regional Public Health Teams to create recipes the children will still love; by reformulating, reducing portion size, or simply adding more fruit.

But Meg’s role goes well beyond producing healthier food, she has also introduced innovative programmes that help to educate children about food. These include Nudge Nudge (using subtle nudges to influence healthier food choices) and Beyond the Chartwells Kitchen (a programme of nutrition education delivered through fun and engaging workshops and classroom activities).

The FDF Awards for 2020 are now open, and The Nutrition Society will once again be supporting industry nutritionists with free membership for the winner. See www.fdf.org.uk

For example, should you fortified food with vitamin D? If so D2 or D3? What about if your product would otherwise be vegan?

Having a Society to turn to that provides high quality conferences and research can help company nutritionists ensure their knowledge remains up to data and credible. This year’s launch of the Nutrition Society Training Academy (NSTA) goes one step further; providing the opportunity to listen to world experts give one hour webinars on a topic is proving invaluable.

As the Council Member for Industry, I see it as my role to keep the Society up to date on areas of interest for the food industry and suggest how it can best disseminate information to a key group who are not academics. I also encourage industry nutritionists to join the Society. Keeping the food industry engaged and up-to-date is an important role for us all.

In the last twenty years or so there has been a great increase in our knowledge of nutritional requirements and the effect of food on health — but new ideas take a long time to become generally accepted — and, there are still people who have not yet got a clear picture of the nutrition problem and who do not realise its social, economic and political importance. These are the words of one of our members, not recently, but 76 years ago, in the midst of turbulent times — a war in Europe. The words are true today — doesn’t general acceptance take a long time? I wonder if this will still be true when the Society turns 100 years of age. Sir John Boyd Orr was a founding member of The Nutrition Society, and thanks to its staff and its members, the Society remains in existence, now in its 78th year. This has been possible as a result of many stalwart members, some very longstanding and some less well known than others, and I hope to feature them in forthcoming Membership Committee Gazette articles.

It was a pleasure to be at ‘Nutrition Futures’ and at the ‘FENS’ conference in recent months, and to meet and to engage with members from all areas of nutritional interest, from those working in Industry, in Policy, and in Animal, Clinical and Public Health nutrition to name some. We live in challenging times socially, economically and politically. At Nutrition Futures, I was particularly struck by the passion for her Public Health work shown by Diane Lee of Barnsley Metropolitan Borough Council. Conversations at FENS, be it over coffee in the Forum or over a glass of something later in the day, often drifted into the Brexit domain. Our Learned Society is a union of people who have something in common. The UK is leaving a union, and the common market we belong to is under threat. As nutritionists we might be contemplating how food, nutrition and health will be affected in the short and long term by our democratic decisions. Nutrition for health is not necessarily ‘rocket science’ and other societal factors such as inequality and poverty are of great influence. The environment we encounter on a day-to-day basis has great influence over nutritional choice, as does social deprivation. The FENS theme was ‘Malnutrition in an obese world’ and Dame Sally Davies, the outgoing Chief Medical Officer for England was at the same time warning that the government is nowhere near its ambition of halving childhood obesity by 2030. We may soon have to change the dietary and physical activity landscape whilst being outside of the European Union, but important nutrition collaborations with European neighbours and colleagues will hopefully continue — the FENS community considerably helps that. The evidence that is sought to answer our research questions can be rocket science, and increasingly this needs to be carried out co-operatively, in large multidisciplinary teams that bring knowledge, experience and skills together from a diverse range of disciplines, across Europe and the rest of the world.

The social, economic, political and physical environment we have created in the UK is turbulent indeed. When the Nutrition Society celebrates its centenary in 2041, let us hope that Boyd Orr’s words will not be so relevant as they were, and still are.

Membership Matters

Dr Dean A. Sewell, Honorary Membership Officer

GRANTS

Each year, the Society uses journal revenue to support membership activities including awards for nutrition excellence, supporting members to attend conferences, and offering Summer Studentships to undergraduate students.

SUMMER STUDENTSHIPS 2019

Rebecca Brooks
University of Leeds

Avril Cassell
St Mary’s University, Twickenham

Lesley Yates-Cinti
Edge Hill University

Rachel Moon
University of Leeds

Benjamin Narang
University of Bath

Maria Wesołowska
Ulster University

Congratulations to Benjamin Narang, University of Bath, for being awarded the best Summer Studentship project entitled ‘The effect of glucose-calcium co-ingestion during endurance exercise on exogenous glucose oxidation in healthy adults’.

CONFERENCE GRANTS

Emma Brown
University of Glasgow, UK

Holly Neil
Ulster University, UK

Mary Oyewole
University of Ibadan, Nigeria

Toni Spence
Ulster University, UK

Sara Wallace
Ulster University, UK
The Nutrition Society hosted FENS 2019 on October 15–18, welcoming 1700 delegates to the Convention Centre, Dublin.

Four years in the making, both the Society and FENS were delighted with the excellent engagement, support and feedback from delegates received over the course of the conference.

With nine streams running concurrently every day, over 1,000 original communications presented, and 175 symposia, the biggest challenge was often deciding what session to attend.

To read a summary of all five plenary sessions and other events that took place at FENS 2019, and watch a summary video, visit the blog section of the Nutrition Society website. Many congratulations to the Serbian Nutrition Society, hosts of FENS 2023.

Dr Marie Conway
Research Associate in Nutritional Biochemistry, Ulster University

‘My experience of FENS2019 was fantastic! I presented abstracts at the poster sessions. This was an excellent experience! The chairpersons were very well organised and other delegates in attendance showed great interest and enthusiasm in the research I was presenting. This experience has undoubtedly given me more confidence when presenting and communicating my work to others.’

Holly Neill
PhD Researcher, University Ulster

‘As it was impossible to attend all sessions, Twitter was a great source of information and an incredibly useful way to not only gain an insight into missed talks, but to also connect with those at the conference. Personally, one of my highlights from FENS was meeting fellow researchers whom I have followed on Twitter for a long time but have not previously had the opportunity to meet in person. Many thanks to the Nutrition Society for the generous grant to enable me to attend such a thought-provoking conference!’

The Academy of Nutritional Sciences, a new charitable organisation which aims to provide a powerful and unified voice to promote evidence-based nutrition science, was launched by the new Academy Trustee Board.

Dr Joao Breda, The World Health Organization, gave the first plenary lecture

FENS 2019 would not have been possible without the hard work of the local helpers

175 sessions across the four-day programme

Three launches including Introduction to Human Nutrition 3rd edition textbook, and Gut Microbiome Journal

Exhibitors from across Europe

#FENS2019
There were plenty of opportunities to meet colleagues from across the globe. Over 1000 Original Communications were presented and 1,700 delegates from 78 countries.

Lesley Yates-Cinti
3rd year BSc Hons Nutrition & Health student, Edge Hill University

I had the opportunity to listen to, and in many cases meet, industry experts from all over the globe. I came away armed with knowledge on a myriad of subjects I hadn’t before considered, and I was particularly impressed to learn how the health experts in Ireland have influenced food manufacturers to make product changes, resulting in outstanding positive health benefits for its population. I embraced the opportunity to network and start conversations with university leaders, planting seeds for future career possibilities.

Dr Wendy Hall, King’s College London

Theme Focus: Whole Body Metabolism

A recurring theme at the Nutrition Society/FENS conferences this year has been personalised nutrition, particularly research that applies multi-omics technologies to determine optimum diets. It is anticipated that this approach will be a big part of the future of nutritional science, particularly in the area of healthy ageing and preventing obesity-related chronic diseases.

As I am writing this, just one week after attending the superb FENS conference in Dublin, I am feeling excited and hopeful about these innovations and their potential to improve understanding of dietary prevention of the main causes of mortality. At the same time, I also find myself wondering how nutritional scientists are going to be able to keep up with the statistical/data science techniques that are required to interpret this “big data” appropriately.

Large studies, in thousands of people, are now being conducted using genetics, microbiome composition, epigenetics, metabolomics, and other personal data (such as age, sex, demography, chronotype etc) to determine how much of the variability in a population is determined by these different elements and eventually predict an individual’s responses to diet. The ultimate objective would be to use a data science technique called machine learning to create a set of algorithms that would generate the optimum diet for health for any given individual based on their characteristics at that point in time. For example, will person X experience a lowering of LDL cholesterol concentrations if they follow a low saturated fat diet (which may be dependent on the dietary source and food matrix)? Will they have a lower glycaemic response to pasta and rice compared to bread and potatoes? For all the hundreds of thousands of meals and nutrients that optimise both greater insulin sensitivity and lower blood pressure for person X, are they also compatible with maximum bone health and gut function?

If we ever reach the point where enough data exists on all aspects of meal composition to yield accurate, reproducible whole diet prescriptions for whole-body health, this leads to yet more questions. If you combine all these individual responses to food would the net benefit be greater than if they followed “one size fits all” dietary guidelines? Would this circumvent the need for dietary reference values, which are designed to cover requirements of nearly all individuals in a population? For all the hundreds of thousands of cases. The way we interpret data from nutritional epidemiological studies to inform dietary recommendations is a case in point, and ongoing debate on the statistical limitations of prospective cohort studies has taught us to be cautious in the way we interpret the outputs. More than ever, small-scale randomised controlled trials to determine mechanisms and establish efficacy of dietary interventions are a crucial layer in the overall evidence base and to guide the outputs of supervised machine learning.

As long as there are the highest standards of co-operation and understanding between data scientists and nutritional scientists, then hopefully these predictive algorithms can be applied with expertise and judgement. The reliability and accuracy of the machine learning regression model therefore is crucial to the success of this endeavour, and this is something that most nutritional scientists are not trained to evaluate. Machine learning is being used in many areas of medical science and for many years has been evolving as a powerful tool in other disciplines such as engineering, economics and commerce.

Nutrition is a broad, nebulous discipline that interacts with so many other factors that it presents an enormous challenge to get to the point where we can truly “prescribe” an individual diet with 100% confidence of a net benefit in all cases. The way we interpret data from nutritional epidemiological studies to inform dietary recommendations is a case in point, and ongoing debate on the statistical limitations of prospective cohort studies has taught us to be cautious in the way we interpret the outputs. More than ever, small-scale randomised controlled trials to determine mechanisms and establish efficacy of dietary interventions are a crucial layer in the overall evidence base and to guide the outputs of supervised machine learning.

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S
ince taking on the role of the Society’s Cellular and Molecular Nutrition Theme Leader, I have spent quite a bit of time wondering how best to encourage discussion and debate about the true potential of cellular and molecular nutrition, and specifically to do so in a manner that engages people from across full breadth of the Society’s membership. My perception, built on discussions in many different settings over quite a number of years, is that those nutrition researchers who are already using cellular and molecular techniques tend to be thoroughly enthusiastic about the potential of cellular and molecular nutrition ever done for us? For instance, are there topic areas that you believe we could support you in (e.g. through a one day short meeting, or a training provision to engage non-specialists within the field)? This could focus on an exemplar of a specific area in which molecular, cellular, genetic and genomic research has yielded critical new insights that have changed our understanding of nutrient metabolism and/or requirements. Additionally, we really want to cover the subjects that you are most interested in. For example, instead of solely focusing on examples of specific nutrients, the Nutrition Society Training Academy could include webinars that focus on the power of specific techniques. Or we could look to the future and discuss subjects such as the feasibility of using gene therapy for treatment of inborn errors of metabolism. As far as I am concerned, it is your opinions that should drive what we do, not the feasibility of using gene therapy for treatment of inborn errors of metabolism. So now seems a suitable time for me to pose the question, “What has molecular nutrition ever done for us?”

To try and address this question, we would like to hear from you, on how you believe we can support members with an interest in cellular and molecular nutrition. For instance, are there topic areas that you believe we could support you in (e.g. through a one day short meeting, or a training provision to engage non-specialists within the field)? This could focus on an exemplar of a specific area in which molecular, cellular, genetic and genomic research has yielded critical new insights that have changed our understanding of nutrient metabolism and/or requirements.

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One of the key responsibilities of the Nutrition Society is to support nutrition professionals, irrespective of their career stage. In order to help achieve this, the Nutrition Society Training Academy (NSTA) has delivered over 10 live webinars since November 2018. Through live and pre-recorded viewings of webinars, the NSTA’s content has been viewed over 650 times.

In a previous edition of the Gazette, the newly launched NSTA not only promised to deliver training for ongoing learning, but also skills gaps. I am proud to inform you that this skills gap training has now been introduced as part of the NSTA increasing portfolio of offerings.

With a membership of leading experts across the field of nutrition, the NSTA committee has been in a privileged position when identifying speakers for ongoing learning topics. Essentially, the committee have been able to trust in the delivery of high level, evidence-based research and have a wide knowledge base to identify topics. With notable support requests from student, graduate and early career members, some of whom are at a vulnerable time in their career development, the NSTA started to consider how these requests could be fulfilled. Firstly, the committee identified the training needs before identifying appropriate speakers to deliver them.

I am delighted to inform you that the NSTA has now begun its venture into providing skills gap training, firstly, with a monthly journal club (NSJCU) launched earlier this year. In addition, at FENS 2019, the NSTA’s ‘Ideas for Careers’ workshop saw 35 enthusiastic students and graduates ask pressing questions of leading experts within the fields of academia, clinical practice, industry and freelance, to help kick-start their career journey. The session was a great success and highlighted the significant role that the NSTA can play to support the Society’s student and graduate members.

So, what is on offer next? The NSTA committee have established links with experts from other fields. A broadcaster is set to produce a webinar on ‘the do’s and don’ts of embarking in the world of media as a nutritionist’, and we also have a science communications workshop planned. Other industry experts will be able to provide training on topics such as interviewing and tips on how to write a standout CV. One of the founding aims of the NSTA was to assist other areas of the Society. With six world-renowned journals, the NSTA is also looking to support members with publication by offering webinars on predatory journals, publishing advice, promotion of publications and writing for different audiences.

Look out for all these exciting skills gap training webinars which are coming soon. On behalf of the NSTA and the Society, we look forward to supporting YOUR career journey in 2020.

Penny Hunking, Honorary Training Academy Officer
REPORTS

T he Scottish Section were privileged to hold the annual Spring Conference in Dundee, hosted by Dundee Abertay University and organised by Dr Karen Barton (Dundee Abertay University) and Dr Jo Cecil (St Andrews University) on April 1-2 2019. The conference focused upon the inter-individual differences in the nutrition response: from research to recommendations and the topic was initiated by Dr Janice Drew (Aberdeen University). Based upon the wide ranging discussion points that the conference raised, the Scottish Section envisaged the Society returning to this theme in the near future. The student representative (Celia Alvarez Campano and Marietta Saygh) on the Scottish Section committee organised a successful student symposium that was held on the first evening of the conference. We welcome ideas from our student section on both future scientific themes and social events.

Three members of the Scottish Section Committee came to the end of their tenure this year and the Scottish Section wishes to recognise their valuable contribution over the past 3-4 years: these are Dr Lindsey Masson (Robert Gordon University, Aberdeen), Dr Emile Combet Aspry (University of Glasgow), and Dr Sprikoulas Athanaeou. Sprikoulas was also the Secretary of the Scottish Section and a special thanks goes to her for all her efforts in making the Scottish section a success. We welcome new members to the Scottish Section Committee, Dr James Dick (University of Stirling) and Dr Janet Kyle (University of Aberdeen).

Looking forward to 2020, the Scottish Section welcome the decision that Aberdeen will act as host for the Annual Summer Conference (13-16 July). The programme, drawn up by the local organizing committee and guided by Dr Frank Thies, will focus on the multi-faceted relationship of protein requirements across the lifespan and includes international and home experts on this theme. There will be no Spring Conference in 2020 but plans are already in place for the Spring Conference in 2021, which will be hosted in Edinburgh.

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 at office@nutritionsociety.org

DR DEREK BALL, SCOTTISH SECTION

Professor Lorraine Brennan, Secretary, Irish Section

Professor Lorraine Brennan, Section Secretary, Irish Section

2019 was an extremely busy year for the Irish Section. Some of the highlights include a successful Postgraduate meeting, a joint symposium with the Irish Nutrition and Dietetic Institute (INDI) and of course FENS. All of these were extremely successful due to the commitment of many members of the Irish Section. I would like to thank them all for their hard work. The vibrancy and activity within the Section is a testament to its members. We look forward to expanding the section in coming years and are delighted that our next annual meeting will take place for the first time in the University of Limerick.

The running of an active and vibrant Section relies on the commitment of the Irish Section Committee. Many in the committee perform a lot of work behind the scenes. Our ASM in October, coincided with the end of term for a number of individuals and I would like to take the opportunity to thank them for their sustained work over the last three years. We said goodbye to our wonderful Chair, Associate Professor Clare Corr. Clare was a fantastic Chair who worked to enable a successful dialogue with INDI. We will always remember her humorous and touching after dinner speeches. Dr Pamela Magee performed house work in keeping our finances in shape and enabling the delivery of student bursaries/travel grants. Many of you will have benefited from these and I know will join me in thanking her. Thirdly, Professor Michelle McKinley has ensured that our membership numbers were healthy and kept us well informed! Our student representative Aoife McNamara has finished her term and a big thanks to Aoife for reaching out to all the student members. Dr Suzanne Doyle was our link to INDI and was committed to helping both organisations work together. I also finished my term as Secretary and would like to thank all the members of the section for their commitment to ensure that we have a vibrant, active and inclusive Irish Section.

The future of the Section is in very safe hands with the new Chair, Dr Derek Ball, who was elected at the recent AGM in November. Derek is a very experienced chairperson, having previously served as Chair of the Scottish Section. We look forward to expanding the section in coming years and are hopeful that this section will continue to thrive. We would like to thank them all for their hard work. The vibrancy and activity within the Section is a testament to its members. We look forward to expanding the section in coming years and are delighted that our next annual meeting will take place for the first time in the University of Limerick.

Our next event is the Postgraduate meeting in Dublin in February and I hope to see many of you there. I encourage all postgraduate students to submit abstracts and I look forward to what will hopefully be an excellent meeting.

DR DEREK BALL, SCOTTISH SECTION

Professor Harriette Chick

Harriette Chick was born in London in 1875 and became a research scientist with expertise in microbiology. In 1904 she was awarded the DSc degree by the University of London for her research on microorganisms in water pollution. At the Lister Institute she continued her research on the relative potency of disinfectants and developed the Chick-Watson equation to define the relationship of bacterial survival to time of exposure to a disinfectant. This led to studies on protein denaturation as a possible mechanism for the action of disinfectants on microorganisms.

However, World War 1 and the era of discovery of vitamins by Casimir Funk, Frederick Gowland Hopkins, Elmer McCollum, Edward Mellanby and subsequently many others, re-directed Harriette Chick’s research towards nutrition and to micronutrient deficiencies in particular. She began investigating foods that would prevent the nutrition-related diseases of beriberi, pellagra and scurvy.

In 1919 she led a team of women scientists to Vienna to explore the role of nutrition in the resurgence of the childhood bone disease of rickets. The war-related blockade of food supplies gave rise to widespread malnutrition in Europe, and Vienna was particularly affected.

In a remarkable experiment with groups of rachitic children, Chick and her team showed that the bone defects of those dosed with cod-liver oil were restored to normal, while rickets persisted in other infants in the same environment. Harriette Chick therefore concluded that there was something contained in cod-liver oil that corrected a deficiency in the children with rickets. However, she also made the paradoxical observation that rachitic bone lesions were healed when children with rickets were exposed to the sun in summer or to artificial ultraviolet radiation. Subsequent chemical research by others, identified the structure of the antirachitic substance in cod-liver oil as the secosterol, cholecalciferol, and showed that it was produced in skin by the action of photons of UV light on a precursor, 7-dehydrocholesterol. Thus, in the culture of nutritional knowledge of the 1907’s, cholecalciferol was given the alphabetical code name of vitamin D, being seemingly the fourth micronutrient to have been discovered.

Yet subsequent analysis of many foods found that vitamin D was absent or at extremely low concentrations, so it is difficult to envisage a nutritional supply of vitamin D to humans without food fortification. Why then was rickets so prevalent in children in Vienna at the end of WW1 and apparently linked to malnutrition from severe food shortages at that time?

The rachitic children studied by Harriette Chick in Vienna were less than three months of age. Their recovery after oral dosing with cod-liver oil certainly demonstrated for the first time that rickets was a deficiency disease, but how could infants under three months of age develop such a condition? Those circumstances resemble closely the development of rickets in newborn infants in Mongolia where rickets is a consequence of maternal vitamin D deficiency, related to maternal malnutrition.

It is now becoming clearer that there is a functional store of vitamin D which can maintain vitamin D status in winter and that this store is defective in malnutrition. Harriette Chick’s discovery of the effectiveness of oral administration of vitamin D in curing rickets and that its physiological source is by formation in skin, was the start of the special point of knowledge of vitamin D biology. In 1969, a new wing of the Dunn Nutritional Laboratory in Cambridge was opened by Dame Harriette Chick and Sir Harold Himsworth. Dame Harriette contrasted the new facilities with the primitive resources available to her in her career at the Lister Institute. However, her discovery of the role of sunlight in producing vitamin D and the link between malnutrition and vitamin D deficiency were as important as any consequent discoveries over the 100 years since then.

Dame Harriette in her later years moved from Branscombe in Devon, to a house in Storey’s Way in Cambridge. She was a good friend of Egon and Jindra Kodick, when Egon was the Director of the MRC Dunn Nutritional Laboratory on Milton Road. I was privileged to meet her several times at afternoon tea in the Kodick’s home and had the pleasure of driving her back to Storey’s Way afterwards. She was an excellent conversationalist and recounted vividly her experiences in resolving the then mystery of rickets in infants.

The Trustees are delighted to announce that the new library at the Nutrition Society’s offices will be named the Dame Harriette Chick Library. The Society will be reporting back to members on the office relaunch in the Summer Gazette.

DAME HARRIETTE CHICK

Professor David Fraser, The University of Sydney

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Dr Manana Stanley, President of the Georgian Nutrition Society

I grew up in Georgia during Soviet times, where I qualified as a medical doctor and then gained a Ph.D. in Nutrition at Tbilisi State Medical University. In 1993, I came to the UK through a British Council grant to study new methodologies in nutrition and conduct a research project at the Dunn Nutrition Unit, University of Cambridge. During this time, I met my husband and settled here. I was subsequently employed at the Dunn as an MRC Staff Scientist, and then at University of Surrey as a Research Fellow in the School of Life and Biomedical Sciences.

It was always my desire to use my nutrition knowledge and expertise gained in the UK to help support nutritional science in Georgia, which is very much in line with the original aims of the British Council.

Following serious economic hardship resulting from the collapse of the Soviet Union, education and scientific work suffered serious shortcomings in Georgia. It is only recently, with economic improvements, that the importance of nutrition and nutritional research has once again attracted interest from government institutions and the wider public.

In 2017 I approached the Nutrition Society to help set up the Georgian Nutrition Society (GNS) to encourage nutritional science in Georgia. This resulted in a UK scientific delegation visiting Georgia in September 2018 to take part in an Inaugural Nutrition Symposium in Tbilisi. I would like to thank Mark Hollingsworth, CEO of The Nutrition Society for his role in making this happen. The symposium focused on nutrition and cancer with presentations from academic experts from both countries. It was very much in line with the original aims of the British Council.

The symposium led to the establishment of the GNS and we now count over 50 members with a managing board.

Due to the generosity of the Tbilisi Nataztele Institute of Hygiene and Epidemiology, we now have a permanent office at their place. We ran a follow up conference during May 2019 and are currently planning our Spring conference for 2020. We are looking to set up an online journal and also are in negotiations with the Nutrition Society Training Academy (NSTA) about possible training webinars for the members of the GNS.

Our 2020 conference will include a seminar for members and the wider public on cancer control in low and middle income countries. Cancer is one of the biggest killers in Georgia after heart disease. A key challenge for nutritionists in Georgia is the alarming increased incidence of obesity and diabetes in the country and the importance of more widely educating the population on a healthy diet and lifestyle.

Georgian nutritionists’ and the GNS ambition for the future but there are so many issues that we need to address. These include educating and setting up academic courses; regulation issues; research and identifying the health benefits of some traditional Georgian foods and the development of ethics committees.

Unfortunately, there are currently no specialist degree courses in Nutrition and Dietetics in Georgia and so young people interested in nutrition must study abroad. The GNS is therefore investigating setting up suitable post-graduate courses and are entering discussions with University of Surrey on a possible future collaboration.

All this seems a very big undertaking but we hope to capture the hearts and minds of a young generation of Georgians, who have already shown a very keen interest in nutrition and the GNS. We would like to give them opportunities both to study nutrition and shape the future of scientific research and innovation in the country and beyond.

The first meeting of the Georgian Nutrition Society, Tbilisi, 2018
Dietary proteins are essential for growth and repair of the body, and maintenance of good health. With the demographic transition having led to a rise in ageing populations, the need for adequate protein intake among this age group in order to avoid sarcopenia and other related health issues is increasingly of public health concern. Moreover, while animal products remain major dietary sources of protein, livestock farming has significant environmental impacts and adaptations are required to move towards a more sustainable society. Plant-based proteins are therefore increasingly in the spotlight as a potential substitute for animal-based proteins.

The meeting will highlight recent developments in the field and areas of continued debate. It is structured around six symposia and will explore various aspects related to the physiological determinants for protein requirements, protein nutrition and ageing, metabolic health and disease, appetite control and weight management, novel methods for assessing protein metabolism, and protein sources and their impact on environment and sustainability.

The Summer Conference 2020 will be hosted by the University of Aberdeen and will focus on ‘Protein: the sources, the benefits and the global challenges.’

The Society’s Silver Medal, recognising excellence in the field of nutrition, will be awarded during the conference with the successful nominee delivering a lecture on their career and research findings. In addition, the inaugural lecture of the ‘BJN Paper of the Year’ competition will take place.

Abstracts will open for submission January 2020, closing in early April. This will be a great opportunity to present research to a large audience of peers and colleagues. The conference will also include a number of networking opportunities and the chance to explore the city of Aberdeen.

Further details are available on the conference section of the website. Registration will open in early January.