

Welcome to the latest edition of HNRC News

News

Prof John Mathers appointed as the next Editor in Chief of the BJN

Prof John Mathers has been appointed the next Editor in Chief of the British Journal of Nutrition. John takes up this role from 1 January 2019.

The British Journal of Nutrition

<https://www.cambridge.org/core/journals/british-journal-of-nutrition> is a leading international peer-reviewed journal covering research on human and clinical nutrition, animal nutrition and basic science as applied to nutrition.



HNRC Successes

Nutrition Futures 2018

Congratulations to **Sarah Corsi** who led the student team at Newcastle in arranging The Nutrition Society's annual student conference 'Nutrition Futures'. Sarah was supported by Dr Tom Hill in his role as academic lead. The conference was held at the Assembly Rooms in Newcastle on 10 - 11 September. Sarah commented that "as a 2nd year PhD student for me has been as constructive as thrilling and rewarding experience. The best part is still receiving positive feedbacks from the students who attended the conference."



Professor John Mathers opened the “Nutrition Futures” conference and gave the first plenary lecture on Personalised Nutrition. Professor Emma Stevenson gave an informative talk on the association of diet with postprandial glucose levels. The Original Communications took place on the first day in between plenary sessions. These were split into 14 Oral Communications and 18 lightening sessions. Topics varied from the effect of dietary supplementation with prebiotics on brown adipose tissue thermogenesis, to factors that influence the food choices of dancers.

The second day focused on careers in nutritional science and transferrable skills. This included an energetic workshop on public speaking by Dr Vince Stevenson, College of Public Speaking, which provided participants with techniques to deal with nerves before giving talks, and tips on how to engage their audience. The last session of the conference was an interactive career panel which included career insights from a range of professionals in academia, industry and the non-profit sector.

NuGOweek 2018 “Mitochondria, Nutrition & Health”



This year, we hosted the 15th Edition of NuGOweek at the International Centre for Life on 3 - 6 September. We were delighted to welcome about 140 delegates from 22 different countries. The key note speaker was Prof Sir Doug Turnbull who gave a scene-setting lecture on “*Mitochondria in health and disease*”. The final day of the conference was a joint symposium with the Micronutrients Genomics Project (supported jointly with the Asia Pacific Nutrigenomics and Nutrigenetics Organisation) on the topic “*Epigenetic effects of micronutrients and their impact on cellular and mitochondrial metabolism*”. In addition, we hosted a pre-NuGOweek PhD course on “*Temperature and Metabolism: Implications for nutrition studies*”.

Prizes galore at HNRC Research Day

This year’s HNRC Research Day was held in the Partner’s Room in the Business School on Wednesday 17 October. The participants of the Research Day enjoyed a wide range of presentations from PhD students, Early Career Researchers and Principal Investigators.

As usual, there was stiff competition among the PhD students for the ‘Best Postgraduate Abstract’ competition. The winners were:

- 1st: Stella Breininger
- 2nd: Chanachai Sae-Lee
- 3rd: Khalil ElGendy

In addition, for the ‘on the day Poster Competition’, prizes were awarded to: Duaa Altuwairki, Fiona Malcomson, Lorraine McSweeney and Nuno Mendonca.

The climax of the day was the HNRC Annual Lecture given by Professor Susan Jebb from the University of Oxford on the topic “**Diet, obesity and health: from science to policy**”.

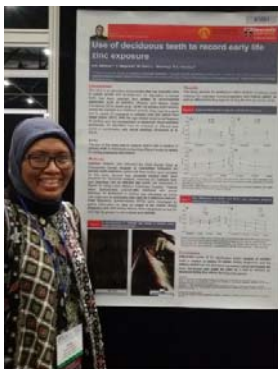


Other successes

Congratulations to **Dr Laura Cutler** on her graduation in July. Laura was also invited to give an oral presentation at the European Health Psychology Society conference (EHPS) in Galway in August. The title of her presentation was *‘Impact of parental perceptions of child obesity and Health-Related Quality of Life (HRQoL) on subsequent child weight outcomes’*.

Congratulations to **Dr Suzanne Spence** who was successful at interview and was appointed to a 5 years Newcastle University Research Fellowship (NURF).

Congratulations to **Dr Fiona Malcomson** who was a recipient of the BNF Drummond Early Career Scientist Award. This annual scheme recognises early career nutrition scientists who show great potential to be future leaders in the field.



Nieka Wahono successfully defended her PhD in December 2017. She has since returned home to Indonesia and graduated at the Singapore campus

on 24 October. She was also selected to present a 3 minute thesis at IADR 2018.

Congratulations to **Cassey Muir** who was awarded the UKCO Fuse Prize and started her SPHR studentship on 1 October.



Congratulations to **Dr Daniel West** who received an equipment grant worth roughly ~35k from Dexcom (San Diego). The grant is to provide Generation 6 interstitial glucose monitors to be used in a study investigating variability in glucose control in people with type 2 diabetes.

Nik Nur Zakaria successfully defended her PhD Thesis. Nik was supervised by Dr Ed Okello and Professor Mark Birch-Machin. The title of her Thesis was *“Evaluation of anti-ageing properties of Moringa oliefera Lam., Centella asiatica (L.) Urban, Clitoria ternatea L. and Cosmos caudatus Kunth for potential application as cosmeceuticals”*.

Dr Susanna Mills applied successfully to participate in a sandpit event on food system resilience in Bristol during July and the proposal developed by her team was selected for funding by BBSRC: £525,456. The project, developed by co-applicants from Cardiff University (PI), Rothampsted, Northumbria University and Scotland’s Rural College, aims to *“Address the challenges of an unsustainable food system by taking a “placemaking” approach to local and regional food systems that involves building connections between consumers, retailers and producers at local- to regional-scales in the UK, and co-producing a sustainable food system that is healthy and nutritious and ecologically friendly”*.

Congratulations to **Dr Tom Hill** who has recently been appointed to the Public Health England Productive Healthy Ageing Expert Group and also to the National Osteoporosis Society Healthy Lifestyle Forum.

Congratulations to **Dr Ed Okello** who has been appointed as External Examiner for the MSc Medicinal Natural Products and Phytochemistry programme, School of Pharmacy, University College London. Ed has also accepted an invitation to become a member of the Newcastle University’s Steering Committee for Black, Asian and Minority Ethnic Staff Network (BAME).

Staff Promotions

Congratulations to **Dr Ruth Valentine** who has been promoted to Reader and **Dr Mario Siervo** who has been promoted to Senior Lecturer.

Projects

Innovate UK translational research project with Newcastle University, Noble Foods Ltd and DSM Ltd.

An Innovate UK project led by Dr Tom Hill which explored the commercial potential of vitamin D enriched eggs has shown that feeding commercial hens added vitamin D in their diets results in a 30% improvement in vitamin D content compared with standard free-range eggs. The results of the study have recently led to the reformulation of the country’s leading free range brand *Happy Egg* at no additional cost to the consumer. The brand is the UK’s market leader in free-range eggs with 15% of the market share, produces circa. 350 million eggs per year and is

bought by 5.9 million households in the UK. Further research is ongoing with the partners to maximise the commercial potential for vitamin D enriched eggs.

Farewells

We say farewell to **Dr Emma Foster** who joined the HNRC in September 1998 as a Research Assistant. Emma's research to date has focused on methods of assessing dietary intake of children and the use of technology based methods of dietary assessment. In 2004, Emma completed her PhD on the subject of "Dietary Assessment in Primary School Children" under staff regulations. In 2011, she was appointed Lecturer in Public Health Nutrition.



Prof Paula Moynihan will also be leaving by the end of the year to take up the prestigious post of Director of Food and Health at the University of Adelaide, Australia. Paula joined Newcastle University in 1991 as the first Lecturer in Dietetics in a UK university. She has had an illustrious career at Newcastle and, in 2008, Paula was promoted to be Professor of Nutrition and Oral Health. In 2001, Paula succeeded Professor Andrew Rugg-Gunn as the Director of the only World Health Organization Collaborating Centre for Nutrition and Oral Health.



We wish both Emma and Paula all the best.

Invited lectures at Events/Conferences

Dr Daniel West was invited to speak at the "Research and Development of dairy for infants and health and performance" conference organised jointly by the Chinese Dairy and Arla Foods Ingredients. The conference was held in Beijing, China in October 2018. The title of his lecture was "The therapeutic benefits of whey protein in people with Type 2 diabetes".

Prof John Mathers was the plenary speaker at the Nutrition Society Symposium in Tbilisi, Georgia on 11 - 12 September. The title of his talk was 'Obesity and bowel cancer: mechanisms to interventions'. Prof Mathers was also an invited plenary speaker at the European Food Safety Authority (EFSA) Conference 2018 – Science, Food & Society; Parma, Italy where he addressed the issue: 'The future of research in personalised nutrition'. At the 5th UK Congress

on Obesity on 6 - 7 September 2018, Prof Mathers gave a symposium lecture entitled “Genetic influences on weight loss - opportunities for personalisation?”.

Professor Ashley Adamson, was invited to give the plenary lecture on ‘Translational Research’ at the 5th UK Congress on Obesity on 6 - 7 September 2018.

Funding Received

WELLCOME Trust Institutional Strategic Support Fund Small Grant Scheme £10,157: *A method comparison study to support application for funding of 2020 data collection of a unique longitudinal cross-sectional study of adolescent dietary intake*. Funding secured from RCF via NHS North of England Commissioning Support Unit £12,790 to support this work. (PI: Suzanne Spence).

NIHR School for Public Health Research £93,442 July 2018 to July 2019: *How can local authorities use existing policy levels more effectively to shape a ‘healthier food environment’?* (Co-I: Suzanne Spence).

Publications

Recent HNRC publications

- Barton KL, Chambers S, Anderson AS, **Wrieden WL**. Time to address the double inequality of differences in dietary intake between Scotland and England. *British Journal of Nutrition*. 120, 220-226.
- **Mills S**, Adams J, White M, **Wrieden W**, Brown H. Sociodemographic characteristics and frequency of consuming home-cooked meals and meals from out-of-home sources: cross-sectional analysis of a population-based cohort study. *Public Health Nutrition* 2018, 21, 2255-2266.
- Albani, V., Bradley, J., **Wrieden, W.**, Scott, S., Muir, C., Power, C., Fitzgerald, N., Stead, M., Kaner, E. and **Adamson, A.J.** (2018) Examining associations between Body Mass Index in 18–25 year-olds and energy intake from alcohol: Findings from the Health Survey for England and the Scottish Health Survey, *Nutrients*, 10(10), p. 1477 [doi 10.3390/nu10101477, available from 5 October 2018]
- Scott, S., Beyer, F., Parkinson, K., Muir, C., Graye, A., Kaner, E., Stead, M., Power, C., Fitzgerald, N., Bradley, J., **Wrieden, W.** and **Adamson, A.J.** (2018) Non-Pharmacological Interventions to Reduce Unhealthy Eating and Risky Drinking in Young Adults Aged 18-



25 Years: A Systematic Review and Meta-Analysis, *Nutrients*, 10(10), p. 1538 [doi org/10.3390/nu10101538 available from 18 October 2018]

- **Okello EJ**, Howes MJR. Essential oils and aromas that affect mood and cognition. In: Philip N. Murphy, ed. *Routledge International Handbook of Psychobiology*. London and New York: Routledge, 2018, pp.195-208.
- **Mathers JC**, Obesity and bowel cancer: from molecular mechanisms to interventions. *Nutr Res*. 2018 Sep 1. pii: S0271-5317(18)30337-3. doi: 10.1016/j.nutres.2018.08.004. [Epub ahead of print] Review.
- Ordovas JM, Ferguson LR, Tai ES, **Mathers JC**. Personalised nutrition and health. *BMJ*. 2018 Jun 13;361:bmj.k2173.
- Sae-Lee C, Corsi S, Barrow TM, Kuhnle GGC, Bollati V, **Mathers JC**, **Byun HM**. Dietary Intervention Modifies DNA Methylation Age Assessed by the Epigenetic Clock. *Mol Nutr Food Res*. 2018 Oct 22:e1800092. doi: 10.1002/mnfr.201800092. [Epub ahead of print]
- Kemp GJ, Jackson MJ, McCloskey EV, **Mathers JC**; CIMA Toolkit Working Group. Towards a toolkit for the assessment and monitoring of musculoskeletal ageing. *Age Ageing*. 2018 Nov 1;47(6):774-777. doi: 10.1093/ageing/afy078.
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- Bradley, J., West-Sadler, S., **Foster, E.**, Sommerville, J., Allen, R., Stephen, A.M. and **Adamson, A.J.** (2018) Feasibility of an estimated method using graduated utensils to estimate food portion size in infants aged 4 to 18 months, PLoS ONE 2018, 13(6), p. e0197591 [PMID: 29879140, doi 10.1371/journal.pone.0197591, available from 7 June 2018]
- Ejlerskov, K.T., Stead, M., **Adamson, A.**, White, M. and Adams, J. (2018) The nature of UK supermarkets' policies on checkout food and associations with healthfulness and type of food displayed: cross-sectional study, *International Journal of Behavioral Nutrition and Physical Activity*, 15(52) [PMID: 29891005, doi 10.1186/s12966-018-0684-2, available from 11 June 2018]
- Haste, A., Penn, L., Rodrigues, A., Marques, M.M., Budig, K., Bell, R., Summerbell, C., White, M., **Adamson, A.J.** and Sniehotta, F. (2018) Using evidence-based guidelines to inform service provision: a structured mapping exercise within the National Health Service Diabetes Prevention Programme in England, *BMC Research Notes* 11(1), p510. [PMID: 30053828, doi 10.1186/s13104-018-3546-8, available from 27 July 2018]
- Janssen, X., Basterfield, L., Parkinson, K., Pearce, M., Reilly, J.J., **Adamson, A.** and Reilly, J. (2018) Non-linear longitudinal associations between moderate-to-vigorous physical activity and adiposity across the adiposity distribution during childhood and adolescence: Gateshead Millennium Study, *International Journal of Obesity* [doi 10.1038/s41366-018-0188-9, available from 14 August 2018]
- Jones, A.R., Tovée, M.J., Cutler, L.R., Parkinson, K.N., Ells, L.J., Araujo-Soares, V., Pearce, M.S., Mann, K.D., Scott, D., Harris, J.M. and **Adamson, A.J.** (2018) Development of the MapMe intervention body image scales of known weight status for 4-5 and 10-11 year old children, *Journal Of Public Health*, 40(3), pp 582-590 [PMID: 29190364, doi 10.1093/pubmed/fdx129, available from 28 November 2017]
- Lean, M.E.J., Leslie, W.S., Barnes, A.C., Brosnahan, N., Thom, G., McCombie, L., Peters, C., Zhyzhneuskaya, S., Al-Mrabeh, M., Hollingsworth, K.G., Rodrigues, A.M., Rehackova,

- L., **Adamson, A.J.**, Sniehotta, F.F., **Mathers J.C.**, M., Ross, H.M., McIlvenna, Y., Stefanetti, R., Trenell, M., Welsh, P., Kean, S., Ford, I., McConnachie, A., Sattar, N. and **Taylor, R.** (2018) Primary care-led weight management for remission of type 2 diabetes (DiRECT): an open-label, cluster-randomised trial, *The Lancet*, 391, pp. 541–551. [PMID: 29221645, doi 10.1016/S0140-6736(17)33102-1, available from 5 December 2017]
- **Taylor, R.**, Leslie, W.S., Barnes, A.C., Brosnahan, N., Thom, G., McCombie, L., Sattar, N., Welsh, P., Peters, C., Zhyzhneuskaya, S., Hollingsworth, K.G., Al-Mrabeh, A., Rodrigues, A.M., Rehackova, L., **Adamson, A.J.**, Sniehotta, F.F., **Mathers, J.C.**, Ross, H.M., McIlvenna, Y., Kean, S., Ford, I., McConnachie, A. and Lean, M.E.J. (2018) Clinical and metabolic features of the randomised controlled Diabetes Remission Clinical Trial (DiRECT) cohort, *Diabetologia*, 61(3), pp. 589-598. [PMID: 29188339, doi 10.1007/s00125-017-4503-0, available from 30 November 2017]
 - Babateen, AM; Fornelli, G; Donini, LM; **Mathers, JC; Siervo, M** Assessment of dietary nitrate intake in humans: a systematic review. *The American Journal of Clinical Nutrition*, Volume 108, Issue 4, 1 October 2018, Pages 878–888, <https://doi.org/10.1093/ajcn/nqy108> Published: 12 October 2018
 - Mendonca N, Granic A, **Hill TR, Siervo M, Mathers JC**, Kingston A, Jagger C. Protein intake and disability trajectories in the very old: the Newcastle 85+ Study. *Journal of the American Geriatric Society* (in press).
 - Lanham-New SA, Gallagher AM, **Hill TR**. Introduction to Human Nutrition 3rd Edition. Co-editor. *Nutrition Society Textbook Series* (In press).
 - **Hill TR**, Granic A & Aspray TA. Vitamin D and Ageing. *Biochemistry and Cell Biology of Ageing: Part I: Biological Science* (2018) (In press).
 - **Taylor R**, Al-Mrabeh A, Zhyzhneuskaya S, Peters C, Barnes A, Aribisala B, Hollingsworth KG, **Mathers JC**, Sattar N, Lean MEJ. Remission of human type 2 diabetes requires decrease in liver and pancreas fat content but is dependent upon capacity for beta cell recovery. *Cell Metab.* 2018 Oct 2;28(4):547-556.e3. doi: 10.1016/j.cmet.2018.07.003
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