

# NIHR Bristol Nutrition BRU Newsletter



Welcome to our ninth newsletter. I hope everyone had a good summer break.

I am delighted to announce that the National Institute for Health Research has awarded Bristol a Biomedical Research Centre with a nutrition theme over five years from April 2017. This funding will allow us to continue and extend our work in nutrition by strengthening links

with experimental psychology and population science. This is great news! I am pleased to welcome Rhys Matson who has joined us as an intern. I would like to wish Eileen well in her new post at the School of Social and Community Medicine.

I would like to congratulate Vanessa Er on the formal award of her doctorate – our first PhD student to graduate (so far)! I would also like to congratulate Chris on the birth of his second child and Ellie on the birth of her first child – our ninth and tenth babies respectively! And congratulations to Byron and his teammates on winning the Touch (Rugby) Championships – our first European champion!

We are now half way through our final year as a BRU. As the newsletter and website show we are now busy disseminating our findings at conferences and in publications. Furthermore, we are running a one day meeting on the 21st October to celebrate the success of the BRU and to report key findings.

Finally, I think this newsletter and previous newsletters illustrate that our unit is a place where lives are lived and where both academic and personal milestones and achievements are celebrated. I am proud to be the Director of such a unit.

I look forward to seeing many of you on the 21<sup>st</sup> October and to working with you over the next five years on the BRC nutrition theme.



The BRU team having leaving drinks with Eileen

## Qantab chloride dipstick project



**By Chris Penfold**

Research Associate in  
Statistics &

**Charlotte Atkinson**

Senior Research Fellow in  
Nutrition



People with intestinal failure may need parenteral nutrition (nutrients and fluids administered through an intravenous catheter placed in a major vein) as they do not have sufficient bowel function to absorb oral fluids properly. However, people on home parenteral nutrition (HPN) are susceptible to severe dehydration and electrolyte disturbance which can lead to hospital admission. Concerns about fluid intake and dehydration are also an important source of anxiety for people on HPN, which can negatively affect their quality of life. Urinary sodium concentration is a commonly used measure of dehydration in clinical practice, but the need to transport samples and test them in a laboratory may delay clinical decisions. Urinary chloride concentration may be a useful indicator of urinary sodium concentration (they both tell us how salty the urine is) and a simple low-cost urine dipstick test for chloride exists – the Qantab titrator stick. This dipstick has been used primarily in non-clinical settings to test chloride concentration in solution, such as in swimming pools.

In collaboration with Dr Jonathan Tyrrell-Price (consultant gastroenterologist and nutrition lead at Bristol Royal Infirmary) we are conducting studies to look at the use of this dipstick in a clinical setting – with the ultimate aim of using it as a point of care test to aid fluid management decisions in people on HPN. We have compared laboratory measured urinary sodium concentration with urinary chloride measured using the dipstick in samples from several different patient groups (i.e., not just those with intestinal failure). Across all samples we tested, the positive predictive value of the dipstick (the probability that those with dehydration were correctly identified as such) was 56% and the negative predictive value (the probability that those without dehydration were correctly identified as such) was 94%. We would like to conduct further studies in an intestinal failure population to investigate the feasibility of a large randomised controlled trial, which would examine the effects of home urine monitoring with dipsticks vs. usual care on hydration status and quality of life in people on HPN. The research team has recently been joined by Dr Sophie James, an Academic Clinical Fellow, who is currently developing this work. Ultimately, the findings of this work could provide greater autonomy for people on HPN and potentially reduce the number of hospital admissions through accelerated identification of dehydration and timely provision of treatment. There is also the potential to apply the findings to other groups of people who are susceptible to dehydration, such as nursing home residents.



Dr Jonathan Tyrrell-Price



## Cystic Fibrosis: USA Research Placements

By Laura Birch, Research Dietitian

This summer I travelled to the USA to undertake clinical dietetic research placements at two leading cystic fibrosis (CF) centres, the Masonic Children's Hospital Minneapolis and the Children's Hospital of Philadelphia, to learn first-hand from world renowned experts in the CF field. These placements were facilitated by the British Dietetic Association's Pam Brereton Award, which was created to allow travel outside the UK to study, research or gather information vital to dietetics.

I spent time with the multi-disciplinary teams at these centres, including physicians, dietitians, nurses, physical therapists and social workers, to learn about their roles in CF care provision. I attended in- and out-patient facilities, observed clinics and education sessions and spoke with patients and their families. The current clinical guidelines are authored by experts at these centres and this opportunity allowed me to pick their brains on how best to achieve optimal dietary management for people with CF. I also participated in research meetings to find out about the extensive research programmes in place at these leading centres.

These placements enabled me to develop a better understanding of US practice and to learn about the differences in CF care provision. It was a hugely useful experience for my own professional development and for UK CF dietetic practice more widely through the opportunity for knowledge-sharing and education.



## Staff Changes

### Goodbye Eileen

We said goodbye and good luck to Eileen Sutton who has accepted a new position in the School of Social and Community Medicine working on the ProTeCt study.

We wish Eileen well in her new role.



### Welcome Rhys Matson...

For my undergraduate degree I studied BSc Sports, Biomedicine and Nutrition at Cardiff Metropolitan University, not too far from where I grew up in Mid Wales. This was a very broad course that combined my interests academically and recreationally, I have always been very sporty and active. After graduating, and having a year working in various fields, I decided that I really enjoyed certain aspects of my undergraduate degree, and wanted to go back to university to further my education. I chose to study MRes Health Science Research at the University of Bristol, and moved here in September 2015. A large part of this course was to undertake an 8-month research project. For my project I looked at the activity levels of adult patients with type 1 diabetes in comparison to healthy controls. This project involved measuring the physical activity levels of both groups using accelerometers, and then comparing them. After completing my masters, I was offered the opportunity of the 6-month internship here at the BRU. I am very excited to commence this internship, it is a great opportunity to learn more about the running of research and other areas that I have not previously studied. My role as an intern here will involve helping out with various aspects of scientific research, such as administration, systematic reviews and data processing. Everyone here at the BRU has made me feel very welcome. I'm sure I will gain a lot from the next 6 months here and that it will be an invaluable experience for me.



## Graduations

Each of our research themes has had a PhD student during the course of the Nutrition BRU. Both Vanessa Er (Prostate cancer theme) and Vaneesha Short (Perioperative theme) have now successfully submitted their PhDs. Vanessa Er was the first to celebrate her graduation in July. Two of our Research Assistants, who completed their PhDs prior to starting at the BRU, also celebrated their graduations at their previous institutions, whilst working at the Unit and we congratulate them on their success.

### Vanessa Er PhD Student

I graduated from University of Bristol. I completed a PhD in the Nutrition BRU looking at the role of diet and lifestyle in prostate cancer. I'm now working in the Centre for Public Health as a research associate. I'm learning and gaining experience in conducting complex public health intervention.



### Osama Mahmoud Research Associate

In October 2015, I graduated from University of Essex where I have completed my PhD studies in Statistics. My thesis was entitled "Improving Statistical Learning within Functional Genomic Experiments by means of Feature Selection".



### Luke Robles Research Associate

I graduated from The University of Nottingham with a PhD in Applied Psychology. I plan to continue working within academia and develop my profile in cancer and other chronic disease research.



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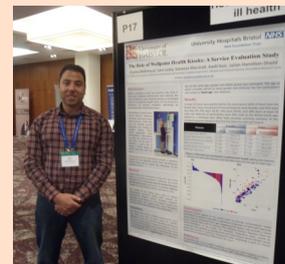
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# RESEARCH UPDATES

By Vanessa Marshall, BRU Manager



## Nutrition, Diet and Lifestyle theme funded as part of new Bristol Biomedical Research Centre

The partnership of University Hospitals Bristol NHS Foundation Trust and the University of Bristol has been awarded £20, 858, 545 by the NIHR to fund a Biomedical Research Centre starting 1st April 2017. The BRC will include Nutrition, Diet and Lifestyle and Cardiovascular themes (already established as Biomedical Research Units), as well as the new themes Surgical Innovation, Reproductive and Perinatal health and Mental Health.

## The BRU completed a local community nutrition project in Bristol to improve eating behaviours and health

The Bristol Nutrition BRU recently completed a community based feasibility study together with The Portland Centre for Integrative Medicine, All About Food, Bristol, Square Food Foundation, University of the West of England, University of Bristol, and University Hospitals Bristol NHS Foundation Trust. The feasibility study of 'Nourish', a family-based behavioural and educational cooking from scratch intervention, was delivered in community kitchens within Bristol. The study is now being written up for publication in a peer-reviewed journal.

## Osama Mahmoud presented at the Society and Faculty of Occupational Medicine (Pictured)

Osama Mahmoud presented a poster entitled "The role of Wellpoint Health Kiosks: A Service Evaluation Study" at The Society and Faculty of Occupational Medicine Annual Scientific Meeting, 27th-30th June, Stratford Upon Avon. This was a joint project with NIHR Leicester-Loughborough Diet, Lifestyle and Physical Activity BRU.

## Charlotte Atkinson presents at 38<sup>th</sup> ESPEN Congress in Copenhagen, Denmark

Charlotte Atkinson presented "An Exploratory Subgroup Analysis from a Randomised Controlled Trial (RCT) of Chewing Gum after Colorectal Surgery" as a poster presentation at the 38<sup>th</sup> ESPEN Congress in Copenhagen, Denmark, Saturday 17<sup>th</sup> September-Tuesday 20<sup>th</sup> September, 2016.

## Kate Hawton presented at the 55th Annual Meeting of the European Society of Paediatric Endocrinology (ESPE 2016 Paris)

Kate Hawton presented "Effects of eating rate on satiety hormones, meal enjoyment and memory for recent eating: An fMRI study" as an oral presentation and as an electronic poster at the 55th Annual Meeting of the European Society of Paediatric Endocrinology, 10-12 September 2016, Paris, France. Kate has been working with Julian Hamilton-Shield and Elanor Hinton on a functional MRI and eating behaviour study at the Clinical Research Imaging Centre (CRIC) as part of the Elizabeth Blackwell Institute Clinical Primer Scheme.

## Luke Robles and Ellie Shingler will present a poster at the NCRI Cancer Conference

Luke Roble and Ellie Shingler will present a poster abstract titled The PrEvENT Feasibility Trial - Results of the Qualitative Feasibility Analysis at the NCRI Cancer Conference in Liverpool from the 6th - 9th November.

## European Touch Championships

### Jersey 7th-10th July

By Byron Tibbitts, Research Associate



When I am not promoting cycling for people with type 2 Diabetes I can usually be found training hard for my other passion – Touch.



Touch rugby, or Touch, to give it its proper name, is a fast and exciting version of rugby played with just six players per side where making any contact with the ball carrier constitutes a tackle.

In July I played my third international campaign wearing an England shirt, captaining England's Senior Mixed team at the 2016 European Touch Championships held in Jersey. We had eight games scheduled across the four days, and a ninth game if we managed to make the Gold medal final. We did, and we won!

Nine months of incredibly hard work, 5am starts to drive to Manchester, Southampton, Loughborough or London to train most weekends, balancing training with a full time job, coaching in spare time to pay for travel. All worth it. Representing my country in something – sport or otherwise – has always been a dream. The reality is hard work but very special, especially when I am able to enjoy this level of success with it. Most of all though, the camaraderie and the friendships built that span the country are what I will remember long after the medals are lost in the back of a sock drawer.

**Keen to know more about Touch?** <http://www.Englandtouch.org.uk/>

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# Project Management Training Day



By Vanessa Marshall, BRU Manager

Project management techniques are vital to the successful delivery of research projects and something that all who work in research need to understand and appreciate. With this in mind, 25 BRU staff attended a one day, pragmatic, interactive, workshop with Caron Fraser Wood from Mindset Management. The aim was to understand the key principles of project management as applied to research projects. The focus was on providing practical tools and techniques in order to ensure that the team delivers what we need, on time and to the required quality. We were given an overview and practical tips of typical issues within research project management, an understanding of where things can go wrong and how to manage researchers within project teams. The day covered project scoping, project planning (including contingency planning), project risk management and project stakeholder management (including PhDs, post-docs, senior staff and collaborators). All those who attended were given an indication of how to tackle some of the most frequent challenges facing research project management and an opportunity to discuss specific project management issues currently facing us and our projects within the Nutrition BRU.



## Congratulations to...



Jonah

...Chris and his wife Sian on the birth of their second son Samuel, born on 19th August, weighing in at 7lb 8oz. We would also like to congratulate Ellie and her husband Greg, on the birth of their son Jonah, born on 21st September, weighing in at 8.4lbs. Jonah is the 10th baby to have been born since the beginning of the BRU.



Samuel

## Social Event

By Vanessa Marshall, BRU Manager

As a summer social evening, the Nutrition BRU chose an evening at "Locked In A Room" to cultivate team spirit and "do something different". Three teams competed against each other in identical rooms, which added a significant edge to the friendly but competitive nature of the whole experience.

The teams found themselves entering the strange world of Professor Samuel Pottenger. They were faced with an exhilarating race against the clock. Cryptic clues, tests and puzzles were aimed at stretching usual thought processes.

Interaction was essential within the group to work out how to complete the task in order to escape from the room within the allotted hour.

Two of the three teams were successful in escaping before the 60 minutes was up, but fun was had by all - definitely an experience to be recommended. If you fancy being "locked in a room" with 4 or 5 friends/colleagues/family with a series of clues and challenges to "escape" ...then give this a go!



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