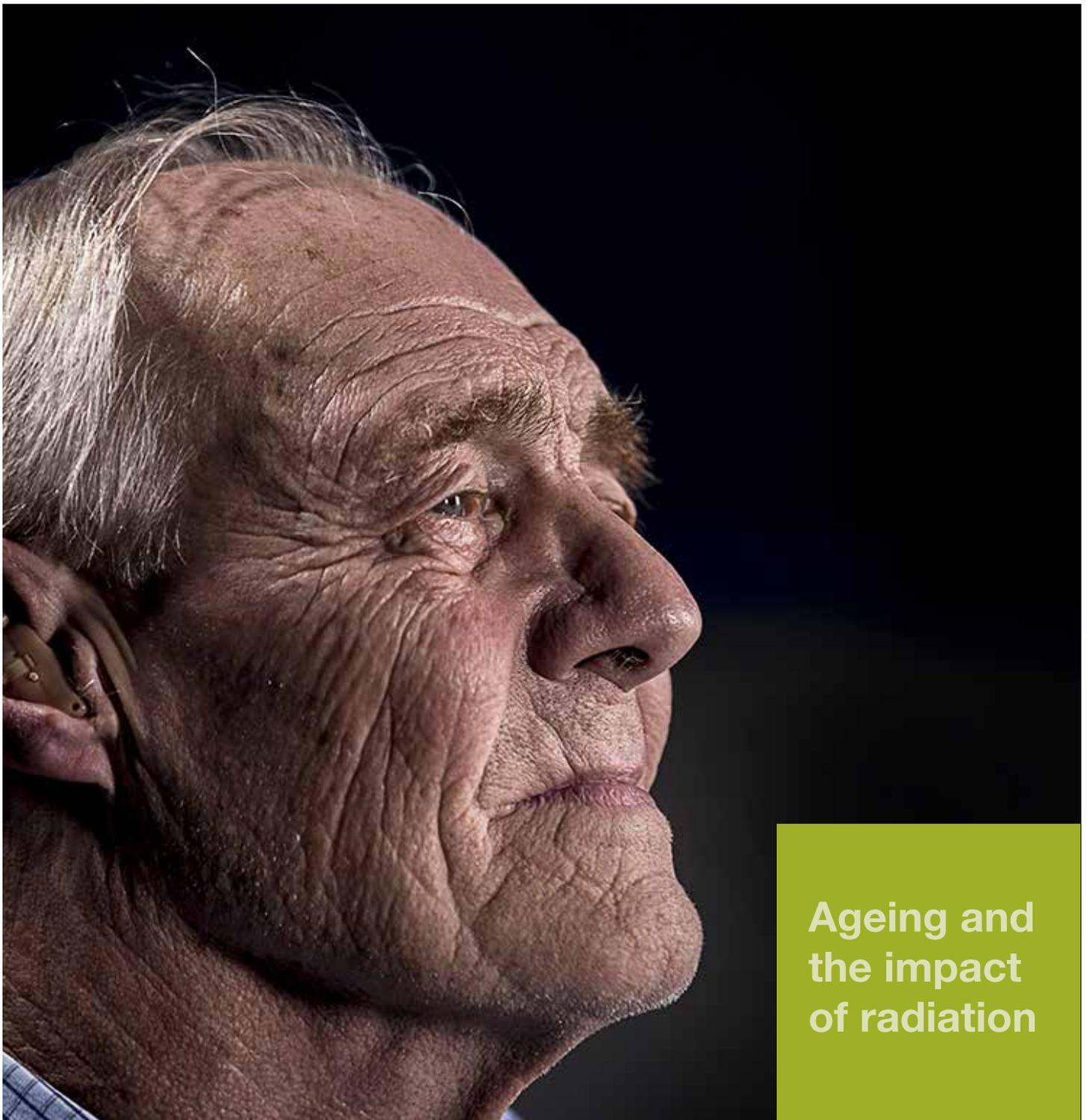


# FACULTY AND RESEARCH UPDATE

Faculty of Health & Life Sciences June 2017



Ageing and  
the impact  
of radiation

# CONTENTS

---



p4



p15



p18

THE EFFECTS OF TIME	3
SOAPBOX SCIENCE 2017	4
CURIOSITY CARNIVAL 2017	5
BROOKES PUBLIC ENGAGEMENT NETWORK	6
RESEARCH EXCELLENCE	7
KICKING THE HABIT	8
OxINMAHR UPDATE	9
CENTRES & CONSULTANCY UPDATE	10
INNOVATION FORUM	12
C1NET WORKSHOP 3 ON METABOLIC MODELLING	12
EQUINE SCIENCE	13
WHO'S NEW IN HLS?	14
EXTRACELLULAR VESICLES	15
PHD'S AWARDED IN HLS	15
FOUNDATIONS FOR LITERACY	16
THE WRITTEN WORD	17
HLS NEWS IN BRIEF	18
EVENTS and RESEARCH AWARDS	20

# WELCOME

---



Welcome to the June edition of the Faculty and Research Update for 2017. This newsletter covers the research stories, events, latest teaching and staff news from the Faculty of Health and Life Sciences. The academic year is coming to an end with many of us besieged by marking – hopefully now with a very small but discernible light at the end of the tunnel.

I have helped with the editing on this issue after my previous experience was so enjoyable, and working with the team has been insightful and very stimulating. Many years ago, I used to produce a 'works magazine' though we only had access to a very bad photocopier and an old stapler to produce it – how things have changed!

In this issue we have a lead story regarding some very thought-provoking research from the Department of BMS, a fascinating look at studies with deaf children and a few reports on recent public engagement.

To keep future editions interesting and relevant we require a constant supply of news stories, so please keep sending them to:

**[fhls-news@brookes.ac.uk](mailto:fhls-news@brookes.ac.uk)**. Alternatively if you'd like to consider guest editing a forthcoming HLS Faculty and Research Update, please contact us at this address. You can also keep up to date with the latest HLS news on our web page: **[www.hls.brookes.ac.uk/news](http://www.hls.brookes.ac.uk/news)**

**Rose Scofield, Course Leader BSc Equine Science/Equine Science and Thoroughbred Management**

# THE EFFECTS OF TIME;

Exploring the ageing process in mammalian cells and the impact of radiation

The Genomic Instability research group in the department of BMS has recently been awarded a £115,000 grant from the Dunhill Medical Trust (DMT). This research grant will fund a two year project to assess the effect of radiation on ageing (senescent) cells. Such a topic is key to understanding how the elderly may respond differently to a common medical procedure such as an X-ray and how their cells may react to or recover from such exposure. Given that with age, we are more likely to be exposed to radiation through diagnosis and/or treatment, there is a chance that these interventions can cause irreparable damage to ageing cells and may even be an underlying precursor to neurodegenerative disorders. This DMT grant funded project is being led by Professor Munira Kadhim and initial research began at Brookes back in October 2016 by Dr Scott Bright.

## Milly Farrell and Munira Kadhim

It is known that the elderly respond differently – and generally not as well – to cellular stressors such as medical radiation. What is not truly understood is whether ageing cells in ageing tissues also cause stress through the release of inappropriate communication signals to other cells. This project seeks to understand how each of these stressors modulates the response to the other when both are present. For example: Will signals from ageing cells impair recovery from radiation damage? Will signals from radiation-damaged cells accelerate ageing? These signals or messages are passed from cell to cell by small vesicles called exosomes. Due to the relatively inexpensive nature of analysing exosomes, it makes them an attractive screening tool for early disease detection such as certain cancers. Early detection is well known to be important in better survival rates, ultimately helping the elderly stay healthy for longer.

The longer term goal of the research is that it will benefit healthcare professionals in the treatment of elderly patients with a variety of age related conditions, including cancer and neurodegenerative disorders. Initially the results will help clinicians distinguish between aggressive versus

Will signals from ageing cells impair recovery from radiation damage?

Will signals from radiation-damaged cells accelerate ageing?

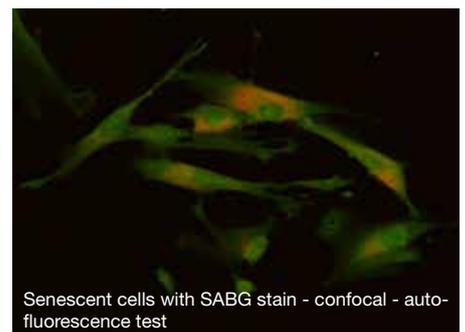
These signals or messages are passed from cell to cell by small vesicles called exosomes. Due to the relatively inexpensive nature of analysing exosomes, it makes them an attractive screening tool for early disease detection such as certain cancers.

mild forms of disease and select the most appropriate drug or radiotherapy treatment, therefore aiding treatment plans. In addition, the underlying biology may identify yet undiscovered therapeutic targets such as proteins that can be targeted pharmacologically, or genes that may be suitable for manipulation through gene therapy, again benefiting the patient by improving treatment efficacy.



Professor Munira Kadhim

The research requires molecular biology experiments, in which the Brookes team is highly experienced. It was only recently that the Genomic Instability research group at Brookes discovered that exosomes are responsible for transmitting signals from irradiated cells to their neighbouring unaffected cells. This significant discovery will therefore underpin the study from here on. The project will also be in collaboration with The Cellular Biology group, from Public Health England, and Dr Mark Hill from the Oxford Institute of Radiation Oncology. Professor Kadhim (pictured above) and team are grateful to DMT for their support and have high expectations that the research will continue to provide a wider benefit as the project progresses.



Senescent cells with SABG stain - confocal - auto-fluorescence test



# SOAPBOX SCIENCE 2017

Building on the success of the first ever Soapbox Science event last year, Oxford Brookes is thrilled to announce its return - but this year there's a twist! In conjunction with the University of Oxford, Brookes is proud to bring you Soapbox Art & Science 2017, uniting artists and female scientists to explore fresh and engaging ways of communicating scientific ideas through art.

## Ravinder Kanda

Who is a scientist and who is an artist? Can the work someone in a lab coat is doing relate to a painting, a dancer, or be understood through music? The new project aims to bring science to arts fans and art to scientists. By challenging artists and scientists to work together, Soapbox Art & Science will bring challenging science concepts to the public in exciting, innovative and engaging ways.

Twelve of the UK's leading women in science will take to the soapboxes to showcase their science to the public alongside amazing local artists. The new Soapbox Art & Science 2017 event will capitalize on Soapbox Science's current strengths to widen the audiences exposed to science carried out by women and will facilitate communication and collaboration between the arts and science communities. Soapbox Art & Science will be presented at Oxford Festival of the Arts on Saturday 1 July.

## Find out more about the event:

[soapboxscience.org/oxford-art-science-2017/](http://soapboxscience.org/oxford-art-science-2017/)

Follow us on twitter @SoapboxSciOxf



Dr Verene Kriechbaumer from Dept BMS took to the Soapbox in 2016

## The Selected Scientists, Their Proposed Topics and The Artists:

- **Kate Davis, Oxford Brookes University** will work with **Dr Ayoe Buus Hansen, Met Office** Their topic: 'Dispersing knowledge – how I model atmospheric dispersion'
- **Tess Pierce (@tessy\_tallula), Oxford Brookes University** will work with **Lucy Mapp (@mapp135), University of Southampton**. Their topic: 'Co-crystals as new and improved drug products: modifying properties for better medicines'
- **Eleanor Monk, Oxford Brookes University** will work with **Sarah Gore (Sarahgore\_ocean), Cardiff University**. Their topic: 'Saving the ocean via artificial ocean alkalisation'
- **Eleanor Minney, University of Oxford** will work with **Dr Liz Tunbridge, University of Oxford**. Their topic: 'How do our genes influence our brains? Why is this relevant for mental health?'
- **Suzanne Vanezis, University of Oxford** will work with **Rebecca Short (@BeccaEShort), University of Oxford / Imperial College London / Zoological Society of London**. Their topic: 'Got bigger fish to fry?: why should we care about fish even in the fight against malaria?'
- **Ellen McAleavey, Oxford Brookes University** will work with **Prof Sonia Contera, University of Oxford** Their topic: 'Nanotechnology and the Future of Biology: the converging technologies that will shape the future of Medicine'
- **Nora Qamar, University of Oxford** will work with **Dr Sarah Hollingshead, University of Oxford**. Their topic: 'The power of pigments! How pigments colour the natural world'
- **Julia Mallaby, Oxford Brookes University** will work with **Cristiana Vagnoni (@Neuronal\_K), University of Oxford** Their topic: 'Neuronal Battleship: Mapping connectivity in the developing brain'
- **Natasha Zielazinski, Composer** will work with **Dr Helen Barron (@HelenCBarron), University of Oxford** Their topic: 'Your story: how does your brain remember?'
- **Oriane Pierrepoint, Oxford Brookes University** will work with **Dr Jyoti Patel, University of Oxford** Their topic: 'Putting a brake on cell trafficking'
- **Clair Chinnery, Oxford Brookes University** will work with **Dr Jennifer Pike, Cardiff University** Their topic: 'Tiny fossils answering big questions: how Antarctic ice evolves in response to changing climate'
- **Molly Foulkes, University of Oxford** will work with **Dr Ros Adamson, University of Oxford** Their topic: 'Structural biology: how we see single molecules'

Saturday 1 July 2017



# CURIOSITY CARNIVAL 2017

Oxford's first European Researchers' Night!

Research is all about lab coats and test tubes, right? Actually, research is about much, much more – in fact many researchers have never worn a lab coat in their lives! Research is feeding curiosity and answering questions. On the 29 September this year, there will be a huge festival of curiosity – a city-wide programme of activities across the University of Oxford's museums, libraries, gardens and woods.



The Curiosity Carnival is all about celebrating, debating and questioning the way that research affects all our lives. It's a unique opportunity for people of all ages and interests to enjoy an amazing programme of research-related activity across Oxford – most of which is free to attend.

The event is being led by the University of Oxford in partnership with Brookes and the MRC Harwell. As key partners, staff and research students from Brookes will also be showcasing our diverse research in the various venues across the city that will be open throughout the evening. There will be a wide range of activities for all ages and interests – live experiments, games, stalls,



busking, debates, music, dance and a pub-style quiz, all based within the city's major public venues (see map).

Oxford's Curiosity Carnival 2017 will join hundreds of other European cities in celebrating European Researchers' Night.

## WHAT IS EUROPEAN RESEARCHERS' NIGHT?

European Researchers' Night is a Europe-wide event dedicated to explaining research through fun, interactive learning – and this is the first one ever to be held in Oxford. It is a unique opportunity to meet researchers, ask questions and find out more about what they research and why.

All the events will take place on Friday 29 September, in over 300 cities across Europe and in neighbouring countries. This European Researchers' Night project is funded by the European Commission under the Marie Skłodowska-Curie actions, which is an EU funding programme to support research careers.

## WHAT'S GOING ON WHERE?

### ■ Ashmolean Museum

At the Ashmolean, we'll be exploring how researchers use time and space to think about all sorts of things – from big (find out about digital wildfires) to small (step into the lift to talk to our bellhop about claustrophobia); and from fast (how engineers are trying to break the land speed record) to slow (how our sleep/wake patterns work). There'll be dance, art, talks and demonstrations to get you thinking about time and space differently.

### ■ Oxford University Museum of Natural History and the Pitt Rivers Museum

Curious about people and our planet? Come on a journey from the inside of your cells to distant planets – and lots in between. Check out the interactive games, flash talks, experiments, films, live poetry, music and dance – and even a bit of cooking! And make sure you have a drink and chat with researchers in the research café.

### ■ Botanic Garden

Discover the weird and wonderful things living and hiding in the Botanic Garden. Shrink to the size of a plant cell and grow like a giant to explore the branches of the tree of life. You can even taste the future at a tea party with a twist. Step into the Botanic Garden wonderland, where things just get curiozier and curiozier.

### ■ Bodleian Libraries

For one night only, the Weston Library is replacing books with living researchers! Borrow a researcher from the Living Library and discuss their fascinating work with them. There'll be dozens of researchers on loan from all sorts of subjects – just browse the catalogue and find out what our researchers are up to.

### ■ Museum of the History of Science

Think you're a quiz whizz? Put your general knowledge to the test in our pub-style quiz. Each team will be joined by a researcher and you'll be competing for a mystery prize. This is an 18+ event.

**Find out more:** [www.ox.ac.uk/curiosity-carnival](http://www.ox.ac.uk/curiosity-carnival)



Friday 29 September 2017

# BROOKES PUBLIC ENGAGEMENT NETWORK

Earlier this year, we launched the Public Engagement Network (PEN) at Brookes as a means to support promote and connect researchers involved in, or interested in, public engagement (PE). This network links to the current University Research and Knowledge Exchange Strategy, which highlights PE as a key aspect of our University impact and research profile.

## Anne Osterrieder and Milly Farrell

As an outcome of the last REF almost 7000 impact case studies were returned to the assessment across the UK, of which 4871 cite some form of public engagement activity. This is a significant indicator of the value and importance now placed on engaging the wider public in University research and work. There is also a direct correlation recognised between public engagement outputs and research funding.

PEN presents several opportunities for our University; through enhancing our institutional profile and furthering the aims of our Research & Knowledge Exchange Strategy; disseminating our research and academic expertise to its beneficiaries; developing new audiences; and training and supporting our researchers and students who wish to engage with the public.

### WHAT IS PUBLIC ENGAGEMENT?

***“Public engagement describes the myriad of ways in which the activity and benefits of higher education and research can be shared with the public. Engagement is by definition a two-way process, involving interaction and listening, with the goal of generating mutual benefit.”***

National Co-ordinating Centre for Public Engagement

### PEN STRATEGIC OBJECTIVES:

- Be the first point of contact for PE advice.
- Support researchers in their PE activities by providing training and resources (materials, limited funding).
- Promote opportunities to participate in larger PE events.
- Provide case studies as evidence of impact.
- Capture and help promote PE activity.
- Improve communication across Faculties to encourage PE collaboration and increase impact.
- Recognise excellence in PE through an award scheme.
- Collaborate with internal and external teams and networks.
- Increase student participation in PE.



### NEXT STEPS FOR PEN:

Look out for further information and opportunities via email, or to sign up to the PEN Google group for regular updates, please contact Anne: [a.osterrieder@brookes.ac.uk](mailto:a.osterrieder@brookes.ac.uk)



### WHY DO PUBLIC ENGAGEMENT?

- Disseminate your research.
- Inspire ‘the next generation’.
- Involve the public in your research.
- Requirement for REF/grant proposals.
- Social responsibility (as current research is largely publicly funded).
- Get new perspectives on your research.
- It’s fun!

## RESEARCH TRAVEL AWARD

Prof Jane Appleton, Professor of Primary and Community Care in the Oxford Institute of Nursing, Midwifery & Allied Health Research (OxINMAHR) was successful in obtaining The Florence Nightingale Foundation/Dr J.P. Smith Travel Scholarship for 2016-2017. Jane will be using the award to travel to Denmark, Norway, Sweden, and Finland to undertake an international examination of the work of public health nurses in safeguarding and protecting children, with a particular focus on learning more about risk assessment practices.

The Florence Nightingale Foundation are also kindly sponsoring Prof Jane Appleton’s inaugural lecture, to be held on the on 7 June.



# RESEARCH EXCELLENCE

Recent Central Research Funding Awards

The annual research excellence awards have recently been confirmed and awarded to the following research projects in the Faculty of Health and Life Sciences.



## Development of an Impact Case Study: Assessment and learning in children with movement difficulties

Award: £10,000

**Professor Anna Barnett** has received funding to help develop her work for submission of an Impact Case Study for the next REF. In an Impact Case Study for REF2014 she described her research on the identification and assessment of children with movement difficulties. The new funds will allow her to develop this to consider intervention strategies to support learning in these children. This includes the description and evaluation of a local community bike-riding scheme for children with movement difficulties. Anna is gathering views from the children, parents and trainers and is running an international workshop to disseminate information about this intervention scheme.

**Anna Barnett, Dept. PSWPH**

## Imaging the uptake of extracellular vesicles

Award: £15,000

The research excellence award to **Dr Dave Carter's** lab will be used to visualise how extracellular vesicles are taken up into cells. Extracellular vesicles are small fatty bags that are released by cells and can be taken up by their neighbouring cells. These bags can carry cargo molecules that can be transferred between cells, and so they allow cells to send messages to one another. It's important to understand how they deliver these messages because this form of communication between cells can go

wrong in diseases like cancer. With this award we will use some advanced bioimaging techniques to visualise how the vesicles get into cells and where they go to once they get in. This could lead to new therapies to treat cancer and new ways to deliver drugs.

**Dave Carter, Dept. BMS**

## Fat fetuses: the role of thyroid hormones in the development of adipose tissue before birth

Award: £10,000

As part of an international collaboration using a fetal sheep model, **Dr Alison Forhead** will be investigating the role of thyroid hormones in the control of growth and development before birth. Recently, her team has discovered that thyroid hormone deficiency causes overgrowth of fat deposits in the fetus, and changes in the relative numbers of white and brown adipose cell types. This CRF Award will fund a project to assess the functional capacity of adipose tissue for heat production at birth: a process essential for survival after delivery into a colder environment. Molecular techniques will also identify how the genes important for adipose growth and development are affected by changes in thyroid hormones. The findings will improve understanding of the control of heat production at birth and the programming of obesity in later life.

**Alison Forhead, Dept. BMS**

## Development of a nurse led self-management app for lung cancer survivors to help improve their treatment side-effects, improve QoL and decrease pressure on NHS services

Award: £20,000

This award will enable **Dr Cathy Henshall** to develop an exercise focused self-management app for lung cancer survivors, to help them manage common symptoms of fatigue, breathlessness and depression. A systematic review and focus groups with lung cancer survivors and

carers will explore their symptom control priorities and any facilitators and barriers to accessing exercise interventions. The findings will inform development of an exercise-focused self-management app for lung cancer survivors. This usability of this prototype will be tested on lung cancer survivors and app modifications will be made based on their feedback. This preliminary work will enable Cathy to apply for external funding to undertake a feasibility study to evaluate the acceptability and feasibility of introducing the app in the oncology setting.

**Cathy Henshall, Dept. Nursing**



Copyright John Flannery

## Studying plant extracts to identify new natural compounds that control insect pests and carriers of disease

Award: £20,000

With this award **Dr Andrew Jones** will be taking on a post-doctoral research assistant to work on a project in collaboration with Luis Aguayo, Professor of Pharmacology at Universidad de Concepción, Chile. Prof Aguayo has identified and extracted neurotoxins from plants native to Chile. At Oxford Brookes University, Dr Jones will test the pharmacological activity of these neurotoxins on nervous system receptors from humans, *Anopheles gambiae* (a mosquito that spreads malaria), *Acyrtosiphon pisum* (a pea aphid that damages crops) and *Apis mellifera* (a honey bee that pollinates crops). In this way the project seeks to identify natural compounds that have greater potency on insect receptors than human ones and

an even better outcome would be to find compounds that have greater activity on mosquito or aphid receptors than that of the beneficial insect, the bee. This then, would be an exciting first step in highlighting potential novel biopesticides.

**Andrew Jones, Dept. BMS**

### Physical activity across the life course of females from childhood to childbirth

Award: £20,000

**Lesley Smith** has been awarded funding to develop her programme of work on behavioural determinants of maternal and infant health. In this study she will investigate physical activity – all activity from walking to work to running a marathon - of females across the life course using data from the International Child Cardiovascular Cohort (i3C). The i3C brings together seven international cohort studies following around 40,000 subjects from childhood through adulthood. By

using i3C data she will be able to describe patterns of physical activity at different life stages such as childhood, adolescence, pre-conception and pregnancy; and look for effects of different physical activity patterns and maternal health outcomes during pregnancy and childbirth.

**Lesley Smith, Dept. PSWPH**

### Motor learning for coordinative tasks in Developmental Coordination Disorder (DCD)

Award: £20,000

Individuals with DCD present with marked motor control difficulties which cannot be accounted for by a physical, neurological or intellectual deficit. DCD is thought to occur in approximately 2-5% of the population and is a life-long condition with individuals continuing to have motor control difficulties throughout childhood and into adulthood. Despite its name very little research in this field has

focused on coordination and how these individuals learn and organise the many muscles and limbs involved in complex movement. Rather research tends to focus on measuring a single outcome of a movement from a single muscle/limb. A new collaboration between **Dr Kate Wilmut** at Brookes and Professor Karl Newell (University of Georgia), who is a world leader in motor learning in typical development, has highlighted the importance of putting coordination at the forefront of DCD research. This award will allow Dr Wilmut to lay the groundwork and provide proof of concept for a larger research project focusing on motor learning for coordinative tasks in this population.

**Kate Wilmut, Dept. PSWPH**

## KICKING THE HABIT;

### Smoking interventions for cancer survivors

**Jo Brett has been awarded a grant of £44,582 from Cancer Research UK to explore the 'Knowledge, attitudes and current practice of health professionals regarding the use of e-cigarettes and other smoking cessation interventions in cancer survivors'. This study brings cross departmental collaboration with the Department of Psychology, and external collaborations with University of Oxford, University of Stirling, University of Glasgow, Oxford University Hospitals, and the New Nicotine Alliance charity.**

#### Jo Brett

Smoking is a well-established risk factor for many cancers, and the adverse effects of smoking continue after diagnosis, increasing risk of treatment related complications, recurrence, the development of second primary cancer, and mortality. In recent years e-cigarettes have become increasingly popular, and there is growing evidence that e-cigarettes promote smoking cessation or reduce exposure to harmful products of inhaled tobacco smoke, providing an alternative approach for cancer patients to reduce harm or stop smoking after a diagnosis.

Using an online survey, the aim of the survey is to investigate knowledge, attitudes, current practice and behaviours of cancer surgeons (n=100), oncologists (n=100), cancer nurse specialists (n=100),

GPs (n=100) and practice nurses (n=100) regarding the place of e-cigarettes as a smoking cessation intervention in cancer patients. Participants will be recruited through Doctors. Net online research body Medeconnect, and further promoted in online nursing forums and nurse journals. A conceptual map of behaviours by health professionals around e-cigarettes and other smoking cessation interventions will be mapped using the behaviour change wheel model (COM-B) to identify the capability, opportunity and motivation behaviours of health professionals to engage in behaviours that will increase the implementation of e-cigarettes and other smoking cessation interventions in cancer survivors. The study will both help inform policy development around e-cigarettes for health professionals working with



cancer patients, and inform the future trial design for e-cigarettes and other smoking cessation interventions in cancer patients.

The study started on 1 April 2017 for one year. We welcome Fiona Matley to the Faculty, who will be working part-time on the project.

#### Collaborators:

##### Oxford Brookes University:

Dr Jo Brett (PI), Prof Eila Watson, Dr Emma Davies, Prof David Foxcroft

##### University of Oxford:

Prof Paul Aveyard, Dr Brian Nicholson

##### University of Stirling: Prof Mary Wells

University of Glasgow: Lesley Sinclair

##### Oxford University Hospitals:

Dr Shiroma De Silva Minor

New Nicotine Alliance charity: Sarah Jakes

## DEPARTMENT OF NURSING STAFF WELCOMED VISITORS FROM UNIVERSITY EAST CAROLINA

Dr Liz Westcott

In March 2017, members of the Nursing faculty of the University of East Carolina visited Oxford. These staff also belong to the International Nurses organisation Sigma Theta Tau and their Chapter is called Beta Nu. They had traveled to London and visited Paris, Windsor Castle and Stonehenge. Their trip to Oxford was for them the highlight of their trip and Nursing staff from Brookes, who are also members of the English STTI Chapter called Phi Mu, hosted the visitors with a high tea in Browns.

The visitors were presented with 125th Years of Nursing Education in Oxford mugs, bracelets and celebration booklets detailing the history of nursing in Oxford. We had a great time hosting our American colleagues, talking about our research projects, sharing ideas and experiences of nursing education and learning about nursing in East Carolina. The meeting had resulted in a number of projects that will be taken forward with our American colleagues.



## OXFORD SCHOOL OF NURSING AND MIDWIFERY

A new Oxford School of Nursing and Midwifery was launched on the 13 March, through a unique partnership between Oxford Brookes University, Oxford University Hospitals NHS Foundation Trust and Oxford Health NHS Foundation Trust, under the umbrella of the Oxford Academic Health Science Centre.

It has been developed in response to a unique period of change in the professions of nursing and midwifery including the changes to funding and bursaries related to nursing and



***“Together we aim to be the exemplar model for nursing and midwifery education, research and clinical practice within the UK because it will take all three of these aspects to attract and retain our nurses and midwives.”***

Professor Linda King, Pro Vice-Chancellor for Research and Global Partnerships, Oxford Brookes University

midwifery education. The purpose of the School is to create a joint University and Trust environment that builds a sense of belonging. It will be founded on the highest quality educational and research experience, creating excellent clinical practice experience, lifelong learning and career development, and establishing an environment of strong clinical research in these disciplines.

The School will be formally launched on 20 June, and it will open its doors on 1 August.

## OxINMAHR UPDATE



**OxINMAHR has continued to grow in terms of research activity and partnerships both nationally and internationally, with a number of renowned researchers spending time with the teams at the OxINMAHR HQ.**

### Tracy McAteer

Professor Debra Jackson has spent time strengthening the links with John Hopkins University in Baltimore following up from the visit in November by Dr William Padula, from the Bloomberg School of Public Health/John Hopkins University. Together, with the PIPOx team, they are developing a strong impact case study around pressure injuries and interventions to make a real difference to patients' lives. Other international collaborations include working with The University of New England, Australia, and The University of Technology Sydney (UTS) in Australia.

A new group, 'OxPINTs' (Oxford Philosophy Informing Nursing Theory & Scholarship) has been formed and they meet monthly with members from across the Thames Valley and London, and from the NHS and the private sector. This is a great opportunity for nurse academics and clinicians to come together and discuss the theories, knowledge and evidence that underpin nursing practice.

Following an exciting three-day workshop facilitated by Professor Philip Darbyshire on Arts & Humanities in Healthcare, we have also created a new group called

the OxINMAHR Health Humanities group where we can continue the discussions and look to integrate the arts and humanities into Nursing and AHP research and education.

More information will be available soon on our website at [www.oxinmahr.com](http://www.oxinmahr.com) where you can also access our quarterly newsletters.

We have also been delighted to host a number of workshops and talks with our partners, including a workshop on 'Working together to develop evidence based practice' within the learning disability nursing community. We are also developing a fully inclusive PPI strategy with a number of local recruitment events which will enable us to embed PPI within every research project we undertake.

Follow us on Twitter: @oxinmahr  
Email: [oxinmahr@brookes.ac.uk](mailto:oxinmahr@brookes.ac.uk)

## NEW PROFESSIONAL DOCTORATE IN NURSING

**Dr Helen Walthall**

The Professional Doctorate in Nursing (DNurs) is a new part-time doctoral programme which is aimed at nurses who wish to remain in practice, develop research skills and knowledge with a peer group and experience our world class research institute OxINMAHR. The programme is focused for nurses who want to develop their knowledge and skills in research to enable them to become independent nurse researchers. The programme will enable nurses to develop research and leadership in practice through the application of higher level critical thinking knowledge and skills.

### The aims of the DNurs are to:

- Provide a deeper knowledge, understanding and awareness of nursing
- Develop and produce independent, reflective and competent researchers
- Promote critical self-reflection and knowledge acquisition
- Help professionals to manage their own learning in order to promote high levels of critical understanding and professional application.

### The DNurs will provide the opportunity to:

- Study nursing theory and practice with a cohort of like-minded individuals
- Develop research skills in order to carry out doctoral level research
- Research specific issues of professional relevance and concern in depth
- Develop a strong research-practitioner community
- Study the methodology and methods of health care research.

The first intake will be in Sept 2017; for further information please contact Dr Helen Walthall: hewalthall@brookes.ac.uk



# CENTRES & CONSULTANCY UPDATE

News from Environment Information Exchange and the Functional Food Centre

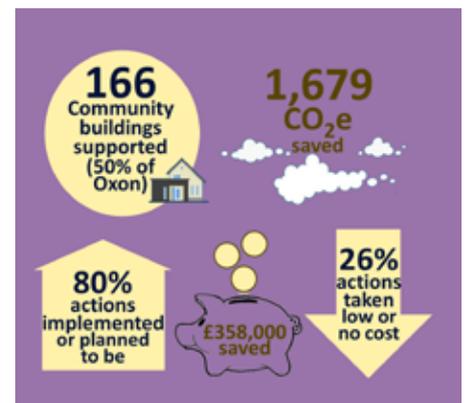
## ENVIRONMENT INFORMATION EXCHANGE (EIE)

**Michael Esvelt**

EIE completed Enrich, a five year project providing energy support to community buildings in Oxfordshire. The project ran from November 2011 to November 2016 with partners TOE2 (Trust for Oxfordshire's Environment) and was funded by the Patsy Wood Trust. Communities were offered a range of support from energy assessments

of their community buildings to priorities actions that would reduce energy and costs, as well as having positive social impacts, such as increased usage. Other support provided included an energy guide for community buildings, support for community shops and pubs, posters to broadcast efforts to local communities, and helping two halls obtain the Eco-Centres environmental award.

A summary of the project's achievements is provided in the infographic opposite.



## NAME CHANGE FOR THE FUNCTIONAL FOOD CENTRE

**Lis Ahlström, Centre Manager**

The University recently approved the name change from the Functional Food Centre to:

**'Oxford Brookes Centre for Nutrition and Health' (OxBCNH).**

The new name is more representative of the research and consultancy that we conduct within the Centre and future areas we wish to explore.

## DR SARAH HILLIER

joined Oxford Brookes as a Lecturer in Nutrition in January. Prior to this she worked as a Research Associate at the UK's largest commercial weight management organisation, Slimming World and more recently as a Lecturer in Nutrition at St Mary's University, Twickenham London.

Her research interests lie in women's health and weight management working collaboratively with colleagues at Oxford Brookes as well as external partners including Slimming World, St Mary's University and City University. She has presented at several national and international conferences (Nutrition Society, World Obesity, Association of Obesity,

UKSBM, Physiological Society, and ECSS) in the areas of weight management, obesity, pregnancy and the menstrual cycle.



## DR MIRIAM CLEGG and DR SANGEETHA THONDRE

have been awarded funds from the SHS Research Awards Scheme to do a small project over the summer. This is to continue their research on

**'The effect of an evening meal with barley beta-glucan concentrate on blood glucose, plasma insulin and salivary cortisol during a subsequent oral glucose tolerance test'.**

Dr Miriam Clegg is currently undertaking research as part of the Oxford Brookes University Research Excellence Awards.

The focus of Dr Clegg's research is the regulation of appetite. It has been proposed that habitual physical activity improves appetite control. In adults of less than 65 years of age, research has shown that those that were active were better at controlling the correct amount of food to consume. They were also able to adjust their food intake depending on the energy density of foods that were provided to them. This effect was improved further with increasing levels of physical activity. One of the reasons for anorexia of aging is delayed emptying of food from the stomach. This means that in the elderly food empties from the stomach at a

slower rate. If emptying is delayed and food remains in the stomach, the individual continues to feel full as the stomach remains distended for longer. In younger individuals, gastric emptying has been shown to be accelerated in those that exercise regularly, which may mean that they will not stay full for as long. Dr Clegg is currently working with collaborators in Newcastle University on a systematic review and feasibility study on this topic.

Hanna Walsh who did a placement project under the supervision of Dr Sangeetha Thondre last summer having been awarded a Nutrition Society Studentship, was asked to represent the Nutrition Society at an event for young scientists in the Houses of Parliament. The event 'Voice of the Future' ([www.rsb.org.uk/news/14-news/1713-students-and-young-scientists-put-mps-in-the-hot-seat](http://www.rsb.org.uk/news/14-news/1713-students-and-young-scientists-put-mps-in-the-hot-seat)) provided young scientists and engineers, a chance to ask political figures questions related to science policy at Westminster.

***"The Nutrition Society asked me to represent them and without the research project last summer I would have never had this chance - so thank you once again for taking me on."***

Hannah Walsh

Patricia Shaw delivered two Nutrition Workshops to the Talented Athlete Scholarship Scheme athletes who train at Oxford Brookes University. These TASS athletes compete nationally and internationally in a variety of sports, including rowing, judo, football, sailing, lacrosse, synchronized swimming, goal ball and kayaking. The Nutrition Workshops are designed to improve their cooking skills and nutrition knowledge.



## OXFORD BROOKES NUTRITION SOCIETY

### Lis Ahlström



Cooking Class

The Nutrition Society have set up a series of classes within the Functional Food Centre to show students how to create nutritious meals easily and cheaply. The first got off to a great start with students learning to make ratatouille with couscous and feta, almond and cacao energy balls,



Quiz Night winners

and green tea and blueberry smoothie. The second cooking class target all Brookes students and will be held in week 11. The society also organised a quiz night where students' general knowledge on food was tested. Winners received healthy snacks.

The Nutrition team set a challenge on social media on 28 February during the world pancake day by inviting all nutrition

students to share their creative pancake designs. The students responded with fantastic creations.



Pancake Day

# INNOVATION FORUM

Late in 2016 the Prime Minister Theresa May declared that 'Today, Britain has firms and researchers leading in some of the most exciting fields of human discovery. We need to back them and turn research strengths into commercial success' and announced plans to invest an extra £2bn a year in Science by 2020.

Victor Bolanos-Garcia



The Faculty HLS Innovation Team aims to:

- Promote a culture for innovation across the Faculty.
- Facilitate new interactions across the Faculty and beyond.
- Enhance the reputation of Oxford Brookes University as a centre of research excellence and innovation.
- Enhance the impact of Research and Development contributions of Oxford Brookes University to the society.

The promised money will be for emerging fields of research in which the UK excels, such as robotics, artificial intelligence and biotech. The announcement is in good alignment with the conclusions of the Stern Review and the goals of the Industrial Challenge Strategy Fund by Innovate UK and the RCUK Networks: Global Challenges Research Fund (GCRF). In response to these ambitious plans, an Innovation Team for the Faculty of Health and Life Sciences has been assembled recently.

To achieve these aims a series of activities are planned throughout the academic year. The activities include the development of an Entrepreneurship training programme for academics, which will be developed in partnership with Innovation Forum, Oxford branch; the organisation of regular seminars on Innovation, Translational Research, IP Generation and Commercialisation by high-profile speakers, from policy makers to CEOs to investors, and of workshops on how to

develop industry partners ahead of co-funding award calls.

Ultimately, the HLS Innovation Team, of which RBDO forms part, aims to enable and facilitate the turning of research strengths across the Faculty into innovative solutions, generation of new IP and/or development into commercial enterprises thus maximising the societal impact of the research conducted across the Faculty.

## C1NET WORKSHOP 3 ON METABOLIC MODELLING

C1net is a BBSRC NIBB (one of 13 Networks in Industrial Biotechnology and Bioenergy) dedicated to development and scalable production of C1 gas fermentation for the whole IB community. C1net provides a cross-sector forum with goals to foster and enhance collaboration between industry and academia, develop skills and expertise, share best practice, define common research priorities and target funding opportunities. The management board is currently 12 strong, with Professor Nigel Minton (University of Nottingham) and Professor David Fell (Oxford Brookes).

Christian Gude (C1net member) and Mark Poolman

Scientists from all over the world met in St James Hotel, Nottingham to gain insight into structural metabolic models under guidance from Professor David Fell and Dr. Mark Poolman of OBU. The computational representation of metabolic networks is achieved through the programme ScrumPy, a powerful tool in representing and analysing complex metabolomes. With ScrumPy, scientists can import enzymatic databases of any organism and subsequently simulate changing growth conditions, gene knockouts and projected yields of

academically and industrially relevant metabolites. The course taught the basics of programming language Python, which is essential to manipulate data within ScrumPy. Interesting talks were held on mathematical background and biotechnological applications of network analysis, flux balance analysis and how genome-scale models are built. Practicals were undertaken to teach us how individual problems can be solved through ScrumPy, and show us its capabilities. So although participants will not use ScrumPy in their

research they may need to communicate efficiently with bioinformaticians who do. Communications between dry and wet sides of the lab is greatly facilitated by workshops like these and give insight in how structural models are made, the ability to ask correct questions and an idea of what to expect of in-house bioinformatics experts. The workshop concluded with three field reports on successful examples of how ScrumPy was used and a stimulating Q&A session.

# EQUINE SCIENCE

## BSc Equine Science/Equine Science and Thoroughbred Management Research Report

The research outlook is improving greatly within Equine degrees, and since our successful attendance at the International Society for Equitation Science last year in France we have progressed well. From one poster presentation displayed last year at the AllTech Conference held at Hartpury College, this year we are fielding nine in total. The research involved has come from students' dissertations and from module research projects. We have subjects involving pH of equine saliva, to methods of keeping New Forest ponies from being killed on the road to the least stressful method of mounting your horse!

### Rose Scofield

Students have also been involved in ground-breaking research in the very new area of Equitation Science, which investigates best practice concerned with riding, handling and training horses.

Members of the Society have been at the forefront of new whip rulings in racing and the regulation of bridles in dressage, and students have become really interested in this relatively new branch of research concerning equine welfare. One example



Calf training

is a dissertation completed by Jessica Crombie, who was aware that the welfare and progression of children with physical and learning difficulties was prevalent when investigating Equine Assisted Therapy. No one to date had considered the welfare of the horses involved in these sessions, so she began a study last summer that culminated in some very interesting findings regarding their welfare.

My own research portfolio carried out in my spare time has also helped students, where they have become involved as volunteers in my investigation into bridle welfare and a little off subject in exploring calf training! I find students are very interested in research overall, and my mission is to engage as many as possible in publishing and conference attendance this and subsequent years.



Merr and Bees

### AREAS OF RESEARCH INCLUDE:



Riding, handling and training

### pH of equine saliva



### New whip rulings in racing



Regulation of bridles in dressage

# WHO'S NEW IN HLS?

A Conversation with Dr Laura Gathercole

In March our Research Grants Officer **Tudor Georgescu (TG)** met **Dr Laura Gathercole (LG)**, who joined the Department of BMS as a Senior Lecturer in Human Physiology in early 2017, for coffee and a conversation about leaky guts, bile acids, and inflamed livers! Laura gained her PhD at the University of Birmingham, where she also did her first postdoc before moving to the University of Oxford. Laura has been awarded the Society for Endocrinology Young Endocrinologist Prize and the European Society for Endocrinology Early Career Prize.

## Tudor Georgescu

**TG:** Hi Laura, welcome to Brookes! Do tell me, what brought you here?

**LG:** I wanted an independent research career, the opportunity to build my own group. Brookes is a great place for me, having a permanent position opens up funding opportunities that weren't available to me, and the department is very supportive. Brookes also has a great bio-imaging facility that will help me answer some of my research questions, I'm really excited about using it.

**TG:** That does take us to the next obvious question, namely where you see yourself making a contribution in terms of research and teaching?

**LG:** My background is in endocrinology, in particular the role that steroid hormones play in regulating energy metabolism. Moving forward, I would like to focus on bile acids, which are a type of steroid, and their role in obesity associated diseases. So, for example, how bile acid metabolism is disrupted in fatty liver disease, then how this impacts other tissues, such as the intestine, heart, and kidneys. I am also looking forward to teaching, I enjoy it, and coming from quite a molecular background it's really good at encouraging a wider view.

**TG:** Where do you think your work sits in the great departmental Venn diagram?

**LG:** One of the cool things here is the variety of research. I've always worked in specialist endocrine centres, and that is great, but I can benefit from the variety of research, and techniques, that we have here. Endocrinology impacts almost every biological system, so as I'm always coming up against things I know nothing about, collaborations are really

important. At the moment I am trying to get my head around the role of bile acids in liver cancer, and the regulation of microRNAs by glucocorticoids, both of which align quite nicely with some of the research here. Also, the enzymes and pathways I work on have real druggable potential, and I have been discussing possible projects with Dr Victor Bolanos-Garcia, and this is something I wouldn't have thought to do if I wasn't here.

**TG:** So would this apply mostly to conditions such as diabetes?

**LG:** Yes, to the cluster of diseases associated with obesity such as Type 2 diabetes, but also liver disease, and cardiovascular disease.

**TG:** Does that mean you can affect peoples' metabolisms and appetite?

**LG:** Some of the work I'm finishing up now involved knocking out an enzyme of steroid hormone metabolism and bile acid synthesis. This had a gender specific effect on weight gain, with differences in food intake, activity, and metabolism. That's one thing that's really exciting about it, it is multi-factorial - a giant puzzle and we need to figure out how it all fits together!

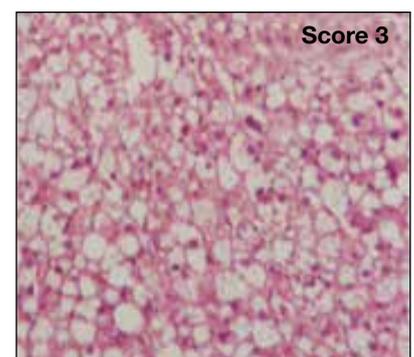
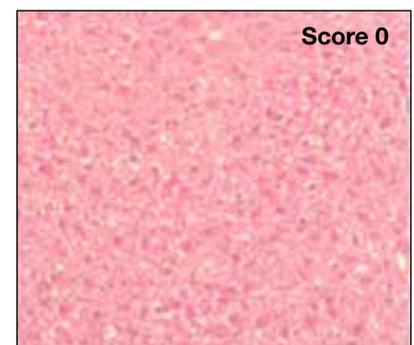
**TG:** Surely that throws up a whole world of interesting options! Where do you think it will lead?

**LG:** What drives me is working out the mechanisms that underpin pathophysiology, but if we understand these mechanisms, then this could lead to identifying therapeutic targets. For example, people with fatty liver disease can progress to develop cancer, we know bile acid homeostasis is disrupted



and that bile acids affect a number of cancer processes. So, targeting the enzymes involved in bile acid metabolism could control carcinogenesis, maybe even something as simple as replacing certain bile acids could be beneficial. As bile acid profiles change in disease, they also make ideal biomarker candidates, to help with diagnosis or prognosis. Bile acids really are very exciting!

**TG:** They certainly make for a fascinating topic, thanks for taking the time to discuss your work!



Hepatic Steatosis (Fatty Liver Disease) scoring

# EXTRACELLULAR VESICLES:

Novel research from Oxford Brookes awarded BBSRC grant

Oxford Brookes University is a key contributor to the rapidly expanding area of research involving extracellular vesicles. Dr Dave Carter, a Reader at Oxford Brookes has recently been awarded a BBSRC-SFI (Science Foundation Ireland) Joint Funding Programme grant of £440,000, to enable the discovery of crucial information concerning these vesicles. The grant will allow an exciting three-year collaboration starting in June 2017 between Oxford Brookes and University College Dublin. Dr Carter collaborated with Professor Jeremy Simpson, a cell biologist based at Dublin, to win the award. The award was created to welcome, encourage and support collaborative research involving international teams led by researchers from the Republic of Ireland and the United Kingdom.

**Sofia D'Abrantes**

## THE RESEARCH

Extracellular vesicles are very small packages with a diameter between 40 - 150 nanometres (nm) - one nm equals one-billionth of a metre. These vesicles are released by cells in the body to deliver messages to other cells for communication purposes. Researchers used to think these vesicles were a waste disposal system, where cells used them to remove rubbish. In the last 15-20 years, research has suggested that extracellular vesicles have a role in communication along with delivery of molecules such as proteins and ribonucleic acid (RNA).

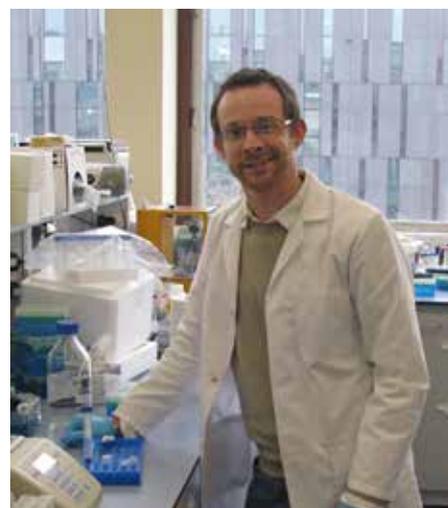
These vesicles are extremely important in their role in various diseases, for example they can be used by cancer cells to disrupt micro-environment and support their growth. Vesicles have been linked to increases in the level of cancer growth, progression and spread throughout the body. There is also potential for vesicle use as a novel therapy to deliver drugs around the body by their own delivery systems, so

understanding of how this transportation system works is vital.

The grant will cover research into vesicle entry into neighbouring cells, delivery of contents and how genes are involved in these processes – an area widely unexplored. Also, investigation will be carried out into the response of cells to stress, and with a multidisciplinary approach combining confocal microscopy with nanoparticle tracking analysis the measurement of size and quantity of vesicles will be undertaken. The collaboration will allow the purchase of laboratory consumables, equipment including a flow cytometer and will also generate two vacancies for a technician and a postdoctoral scientist.

## IMPACT

The outcome of this interdisciplinary research may yield important results as it will involve a pure biological component, have a potential impact on disease and provide insights into a new delivery of



**Dr David Carter** is a Reader in Biomedical Science and the principal investigator in the Carter Lab located in the Department of Biological and Medical Sciences part of the Faculty of Health and Life Sciences at Oxford Brookes University. For more information about the Carter Lab, please visit: [carterlab.co.uk/Homepage.html](http://carterlab.co.uk/Homepage.html)

The BBSRC is the Biotechnology and Biological Sciences Research Council. For more information about the BBSRC-SFI Joint Funding Programme, please visit: [www.bbsrc.ac.uk/funding/filter/bbsrc-sfi-joint-funding-of-research/](http://www.bbsrc.ac.uk/funding/filter/bbsrc-sfi-joint-funding-of-research/)

therapeutics. The grant will allow Dr Carter and Prof Simpson to take part in world-leading research, establish stronger relationships with other scientists in the field, buy new equipment, create two new positions and potentially have an impact on disease.

# PHD'S AWARDED IN HLS:

Confirmed in Semester 2, January-April 2017

Name	Director of Studies	Department	Awarded
Samih Atallah Y Kokandi	Helen Lightowler	Sport and Health Sciences	January 2017
Alessandra Rocchetti	Chris Hawes	Biological and Medical Sciences	January 2017
Emmanuel Debra	Shakeeb Moosavi/ Susan Brooks	Biological and Medical Sciences	March 2017
Daan Paul Meester	Helen Dawes	Sport and Health Sciences	April 2017
Adam Burns	Dr Anna Schuh/ Susan Brooks	Biological and Medical Sciences	April 2017
Leo Graves	Linda King	Biological and Medical Sciences	May 2017

# FOUNDATIONS FOR LITERACY;

Challenges in teaching deaf children to read

Children who are born with a significant hearing loss often find it difficult to learn to read. I first discovered the extent of the problem when I visited a special school for deaf children in the 1980s. Observing the children and talking to teachers, I realised that the majority of children left school with a reading level that did not progress beyond primary school level.

## Margaret Harris

Since the 1980s much has changed. Babies born in the UK are now routinely screened for hearing loss shortly after birth. The great majority of deaf babies are born to hearing parents and, in the past, hearing loss was often not detected until children were well over one year old. Routine screening means that hearing loss is now identified at a very early age. Hearing aid technology has also seen huge advances with the development of cochlear implants (in which a string of electrodes is inserted directly into the cochlea) and digital hearing aids. But had all these technological advances improved literacy?



Together with my post-doctoral research colleague, Dr Emmanouela Terlektsi, and a colleague from City University, Dr Fiona Kyle, I have recently completed a longitudinal study, funded by the ESRC, in which I compared the literacy levels of deaf children currently in primary school with a similar group I had assessed 10 years ago. The results have been surprising. Children in the new cohort had significantly higher levels of spoken language and, compared to the earlier cohort, they showed a two year gain in ability. This is

A key message from our research is that deaf children, who are now in primary school, require ongoing support to develop their phonological skills and to use these in reading. This is an important message because, unlike children born 10 years earlier, deaf children now in primary school often do not sound deaf, so their difficulties with phonological skills may not be apparent.

an impressive level of improvement and it reflects the benefits of more sophisticated hearing aid technology provided at an early age. However, we found that the reading levels of the children in the current cohort had not improved and we think that this is because their phonological skills – knowledge of sounds within words that is so essential for reading – were not significantly better than those of the children assessed 10 years earlier.

Recent research on the characteristics of cochlear implants has suggested that they do not provide optimal information to enable children to develop their phonological skills. The efficiency of implants continues to develop and, within another decade, deaf children may well be able to develop phonological skills that are on a par with those of their hearing peers. However, a key message from our research is that deaf children, who are now in primary school, require ongoing support to develop their phonological skills and to use these in reading. This is an important message because, unlike children born 10 years earlier, deaf children now in primary school often do not sound deaf, so their difficulties with phonological skills may not be apparent.



In the past year, I have been talking to teachers of the deaf about the findings of the study. I was recently invited to the Victorian Deaf Education Institute in Melbourne to record a series of lectures about deaf children's literacy and I gave a seminar at the University of Wellington in New Zealand. I also visited Xuzhou, in China, to begin planning a study to find



out how deaf children in China learn to read. There is very little research on literacy among Chinese-speaking deaf children, but cochlear implants are becoming widely available, especially in the cities. Finding out more about how hearing children learn to read Chinese was an essential first step in deciding what factors to investigate. I was recently awarded a Santander Scholarship so that I could visit researchers at the Chinese University of Hong Kong to find out more.

I have also been a consultant on a US government-funded project, led by Professor Amy Lederberg at Georgia State University, to develop a curriculum to teach young deaf children to read. Together with Dr Terlektsi, we are planning to adapt the curriculum, 'Foundations for Literacy', for British children and to carry out a pilot study to evaluate its effectiveness. The curriculum focuses on all the skills that my previous research has identified as important for deaf children to succeed in reading and we hope that it will provide teachers with an effective, structured approach to supporting literacy.

# THE WRITTEN WORD

Psychology staff provide expertise for a newly funded project in Sweden

Professor Vince Connelly and Dr Olivia Afonso from psychology were recently invited to join researchers in Gothenburg in order to provide them with advice and expertise for their newly funded project. The aim of the project in Sweden is to find out whether and to what extent, dictation tools, such as speech recognition, can support the writing process for people with reading and writing difficulties.

## Professor Vince Connelly and Dr Olivia Afonso

Both Professor Connelly and Dr Afonso have worked on funded projects in this area before and have experience using many different methods to investigate adults and children who struggle with writing. Dr Emma Sumner, a lecturer at the Institute of Education, University College London, was also invited to the workshop. Emma completed her doctorate at Oxford Brookes on the difficulties children with dyslexia have when learning to write. The Swedish team on the project (Dr Asa Wengelin, Dr John Rack, Dr Fredrik Thurfjell and a doctoral student, Sanna Rack) were interested in talking to us since we are one of the few research groups in the world to be studying struggling writers. The Swedish team were interested in hearing about our experiences of similar projects, how we tackled key methodological decisions, how we decided on our participant samples and what kinds of measurement tools we used, and why we chose them. In turn we learned about their fascinating project that has the potential to provide new levels of support for children who are having difficulties with writing.

It is well known that individuals with literacy related difficulties often find writing to be their greatest and most demanding challenge. The Swedish project therefore focuses on the question of how to provide support to assist individuals in overcoming this challenge. The starting point for the project is that, for the majority of those with reading and writing

difficulties, spelling is the greatest obstacle to writing. This involves not only making many spelling mistakes, but also worrying about making mistakes and putting great effort into avoiding them, for example, by editing and replacing words. A risk with that approach is that spelling will take priority over other important aspects of writing such as creating interesting content or the overall structure. Thus, poor hesitant spelling will draw resources from other writing processes and thereby impact on the development of writing skills in individuals with reading and writing difficulties. In order to free-up resources for these other creative processes, it is important to find a way to reduce the demands that spelling places on writing.

At Brookes we have been working with teachers to also find ways to reduce the demands of spelling on struggling writers so they are not held back in demonstrating their knowledge and creativity. The Swedish research project proposes to investigate if people with reading and writing difficulties can use speech recognition to dictate their texts rather than handwriting or keyboarding them. The Swedish project is funded by the Marcus and Amalia Wallenbergs Memorial Fund over the next three years and involves collaboration between the University of Gothenburg and an IT company to develop the speech recognition software required. The use of spellcheckers will also be investigated as a comparison.



The involvement of Brookes research expertise in the start up of this important European project demonstrates the impact that our work is having across the academic landscape and the international reputation of our body of writing research.

There will be further visits planned to share expertise and provide advice between our research groups at Brookes and in Sweden. We hope to widen the involvement of more of our staff and students involved with writing research with the researchers in Sweden. For example, Lynsey O'Rourke, one of our PhD students is currently examining how spellcheckers interact with dyslexia and so it is hoped that she can provide input to the Swedish project at the next meeting.



# HLS NEWS IN BRIEF

David Evans

## NUCLEUS

Professor David Evans, Professor Iris Meier and Dr Katja Graumann from the Dept. of BMS have edited a special issue of the Journal Nucleus, published on 26 January, in response to the Society for Experimental Biology meeting in Brighton last year: [www.tandfonline.com/toc/knc120/8/1](http://www.tandfonline.com/toc/knc120/8/1)

As editors the team brought together leading researchers in the field, both at the meeting and in this collection of review and original research articles. The papers included reflect the engagement of the participants with the structures and dynamics of the nucleus across kingdoms and their willingness to interact and collaborate to take the field forward.

## OFFICIAL OPENING OF NEW SWINDON CAMPUS



Lord Joel Joffe (L), Dr Liz Wescott (Head of Nursing) and Vice-Chancellor Professor Alistair Fitt at the opening event

On 9 February Oxford Brookes celebrated the official opening of its new campus in Swindon to continue the teaching of adult nursing degree and diploma courses.

The new campus, which opened to students and staff last summer, features a new library, high quality teaching spaces, skills labs, catering facilities and spaces to enhance support collaboration and research.

A commemorative plaque was unveiled by Lord Joel Joffe, long-time Swindon resident and former human rights lawyer, who the building is named after.

Vice-Chancellor Professor Alistair Fitt said: ***'We have taught adult nursing degree and diploma courses in Swindon for almost 20 years and have an excellent reputation for producing high quality graduates, many of which go on to work in the local NHS in Swindon, Wiltshire and beyond.'***

***'The Swindon community is important to so much of what we do at Oxford Brookes, particularly our valued relationships with key partners in the town and the wider region, so it was great to welcome them to the official opening of the campus.'***



Vice-Chancellor Professor Alistair Fitt receives a lesson in the new training lab

## HLS ACADEMIC STAFF PROMOTIONS

The Professorial Promotions Committee has announced academic promotions and awards as follows:

### Promoted to Professor:

- Dr Sue Vaughan
- Dr Susan Brooks

### Promoted to Professor (Level 3):

- Professor Helen Dawes

As well as adult nursing and diploma courses, Oxford Brookes offers an Operating Department Practice diploma course and a range of continuing professional development (CPD) courses.

The next Swindon Campus Open Evening is planned for 22 June. See back events page for more info.

## BES SUMMER SCHOOL SUCCESS

BMS Undergraduate students Amy Treadwell and Will Millard have successfully secured places at the British Ecological Society's (BES) summer school this July.

The Summer School is aimed at undergraduates who are either in their 1st or 2nd year at a UK or Irish University and is a chance to spend a full week immersed in ecology, ecological research and the wider community. Congratulations to Amy and Will for securing the opportunity, and to their respective lecturers, Stewart Thompson and Casper Breuker, who supported the application.

[www.britishecologicalsociety.org/learning-and-resources/career-development/summer-school/](http://www.britishecologicalsociety.org/learning-and-resources/career-development/summer-school/)

## FESTIVALS GALORE!

This June Oxford will once again host two festivals of learning that will help share and promote the work of Brookes HLS researchers past and present.

The Annual Oxfordshire Festival of Nature will once again take place during the first two weeks of June at sites around the city. Brookes BMS alumnus Professor Julian Bayliss, will be providing the opening Festival lecture on Thursday 1st June at the Oxford University Museum of Natural History from 6pm. Julian's lecture is titled: Danger and Discovery in Northern Mozambique. During this talk Julian will



relay the tale of how he discovered a hidden Rainforest in the mountains of Mozambique and subsequently identified a staggering 20 plus new species.

To book a ticket for Julian's lecture and see all other Festival events, please visit the Festival website here:

[www.oxfordfestivalofnature.org/events/](http://www.oxfordfestivalofnature.org/events/)



The second Festival taking place in Oxford this June is the Annual Oxfordshire Science Festival. Brookes is involved in a range of outreach science events and for more information on what's on visit the webpage here:

[www.oxfordshiresciencefestival.com/](http://www.oxfordshiresciencefestival.com/)

## NEW TEACHING LABS NOW OPEN

The new teaching suite on the second floor of the Sinclair Building is open and has been welcomed by staff and students. It provides state-of-the-art facilities in molecular and cell biology, biochemistry, microbiology and physiology. Work on new research and teaching laboratories on the first floor of Sinclair is proceeding rapidly with completion due for September and planning for the remaining floors is at an advanced stage.



Teaching lab

## ONS EXCELLENCE IN WRITING AWARD

Dr Lauren Matheson in the Dept. of AHPD has been awarded the Oncology Nursing Society (ONS) 2017



Excellence in Writing Award for Qualitative Nursing Research for the below article, for which she is lead author. This will appear on the ONS website and be announced at their annual conference in the US this summer.

### Article Title:

The Experiences of Young Adults with Hodgkin Lymphoma Transitioning to Survivorship: A Grounded Theory Study

### First Author:

Lauren Matheson, PhD, MSc, BSc

### Supporting Authors:

Mary Boulton, PhD, BA (Hons),  
Verna Lavender, PhD, PGCE, BSc (Hons), RGN,  
Graham Collins, MD, DPhil, Tracy Mitchell-Floyd, BA (Hons), RN,  
Eila Watson, PhD, BSc (Hons)

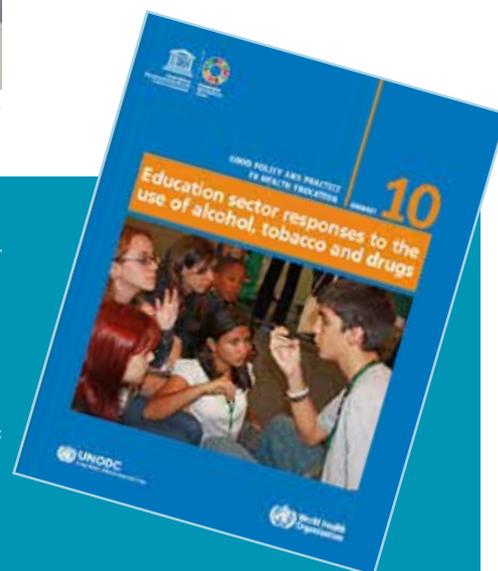
## UNESCO REPORT ON DRUG AND ALCOHOL USE

Professor David Foxcroft from the Dept. of PSWPH was invited to develop a new UNESCO report on Education Sector responses to drug and alcohol use, as part of a small team of international experts.

The publication has been jointly published by UNESCO, UNODC

and WHO and is available to read here: [unesdoc.unesco.org/images/0024/00247/247509E.pdf](http://unesdoc.unesco.org/images/0024/00247/247509E.pdf).

It was released in March at an event in the context of the Committee on Narcotic Drugs in Vienna, jointly by UNESCO, UNODC and WHO.



# RESEARCH AWARDS

January-March 2017

Department	Project Name	Funder	Principal Investigator	Award Date	Award Value
MORes- SHS	Fit for study extension	Education Endowment Foundation	Helen Dawes	28/02/2017	£235,857
Centre for Nutrition and Health- SHS	Which functional lipids can reduce food intake and increase appetite the most in obese individuals?	Tanita Healthy Weight Community Trust	Miriam Clegg	13/02/2017	£6,932
OxINMAHR- AHPD	Patient and carer survey	Pancreatic Cancer UK	Eila Watson	01/02/2017	£32,519
Biological & Medical Sciences	Elucidating the mechanisms and pathways of extracellular vesicle uptake	Biotechnology & Biological Sciences Research Council (BBSRC)	David Carter	31/01/17	£452,093
MORes- SHS	Trial of Exercise to Prevent Hypertension in young Adults	Wellcome Trust	Helen Dawes	31/01/17	£30,000
OxINMAHR- AHPD	Patient and carer survey - additional costs	Pancreatic Cancer UK	Eila Watson	31/01/17	£4,032
Institute of Nursing	150 Studentship OUHT Rounds 1 & 2	Oxford University Hospitals NHS Trust	Debra Jackson	31/01/17	£150,000
Psychology, Social Work & Public Health	Proposed UK Adaptation and Standardisation of the Intelligence and Development Scales for...	Hogrefe Ltd	Anna Barnett	31/01/17	£548,057
MORes- SHS	Brain Plasticity and motor skill competence in young people with Development Coordination Disorder	Action Medical Research	Helen Dawes	10/01/17	£77,045
Psychology, Social Work & Public Health	Safeguarding and protecting children: an international examination of public health nursing practice	The Florence Nightingale Foundation	Professor Jane Appleton	11/07/2016	£4,500
				<b>TOTAL</b>	<b>1,541,035</b>

## EVENTS 2017

The following events can be booked online here, unless otherwise stated

[www.brookes.ac.uk/events](http://www.brookes.ac.uk/events)  
[www.brookes.ac.uk/openday](http://www.brookes.ac.uk/openday)

### UNDERGRADUATE OPEN DAYS

Saturday 7 October  
 Saturday 21 October  
 Saturday 4 November  
 9:00 to 16:00  
 Headington Campus, Harcourt Hill  
 Campus, Wheatley Campus

### SWINDON CAMPUS OPEN EVENING FOR UNDERGRADUATE AND POSTGRADUATE TAUGHT COURSES

Thursday 22 June  
 16:30 to 18:30  
 Joel Joffe Building, Swindon Campus

### UNDERGRADUATE AND POSTGRADUATE SWINDON OPEN DAY

Saturday 14 October  
 Saturday 11 November  
 9:00 to 13:30  
 Swindon Campus  
**SOAPBOX SCIENCE 2017 AT OXFORD FESTIVAL OF THE ARTS**  
 Saturday 1 July  
[www.soapboxscience.org/oxford-art-science-2017/](http://www.soapboxscience.org/oxford-art-science-2017/)



### CURIOSITY CARNIVAL 2017: OXFORD'S FIRST EUROPEAN RESEARCHERS' NIGHT

Friday 29 September  
[www.ox.ac.uk/curiosity-carnival](http://www.ox.ac.uk/curiosity-carnival)  
 HLS Annual Research Lecture

### CHANGING UNHEALTHY BEHAVIOUR: THE INFORMATION PARADOX

Professor Theresa Marteau,  
 University of Cambridge  
 Wednesday 15 November  
 18:00 to 19:00

We require a constant supply of news stories, so please keep sending them to: [fhs-news@brookes.ac.uk](mailto:fhs-news@brookes.ac.uk)