

OxINMAHR ANNUAL REPORT 2019

Oxford Institute of Nursing, Midwifery and Allied Health Research





WELCOME AND HIGHLIGHTS

Welcome to the 2019 Annual Report for The Oxford Institute of Nursing, Midwifery and Allied Health Research (OxINMAHR).

OxINMAHR is a unique research institute in the UK and comprises three research centres and four additional research groups. Our researchers include 8 Professors, 9 senior researchers/fellows and over 45 other research academics.

Our research expertise encompasses nursing, health research, physiotherapy, nutrition, exercise science, physiology, biology, movement science, midwifery, social care, occupational therapy and psychology. Many of our research projects are multi-disciplinary and address the complexities of modern healthcare.

Here are some highlights for 2019:

- 37 grants totalling £1.4 million (including grants from NIHR, Cancer UK, British Heart Foundation, Health Education England, Action Medical Research Charities and a number of other charities) (see page 16)
- £2.3 million total current research portfolio (see page 16)
- 106 papers published in peer-reviewed high impact journals (an of 11% increase from 2018) (see page 11)
- 7 Doctoral students completed and 20 new Doctoral students recruited (see page 20)
- 44 additional Doctoral students continuing to be supervised (see page 20)
- 28 researchers being submitted to REF2021 Unit of Assessment 3 (a four-fold increase on REF 2014) (see page 13)

The success of OxINMAHR is only possible with the engagement and support of the University, our academic community and our local and national partners. I want to thank them for their continued commitment.

I hope that you enjoy reading about our achievements, partnerships and public engagement activities.

Best wishes

Professor Paul Carding
Director of OxINMAHR



www.brookes.ac.uk/oxinmahr/



PUBLIC ENGAGEMENT

OxINMAHR Seminars Series 2019

Title	PRESENTER
Robust Research - a practical guide	Dr V Heise (Oxford University)
The Cognitive approaches in skills training and motor performance for adult/children with neurological conditions	Professor Helene Polatajko (University of Toronto)
Opportunities for sport and exercise science to improve QoL for cancer patients	Professor Torge-Christian Wittke (University Hospital Halle)
How questionnaires shape answers	Dr Femke Truijens (Ghent University)
Accessing hard-to-reach communities for public engagement	Dr Angela Cristofoli (Oxford Community and Voluntary Action)
Life after pancreatic cancer diagnosis	Professor Eila Watson (Oxford Brookes)
Presenting at a scientific meeting	Professor Paul Carding (Oxford Brookes)
Moving and Ageing Gracefully (Movement Science research)	Dr Patrick Esser (Oxford Brookes)
What is your publication strategy?	OxINMAHR panel
Cardiorespiratory research seminar	Dr Shakeeb Moosavi and Dr Helen Walthall (Oxford Brookes)
A pre-test, post-test design study to evaluate an E-learning tool for midwives' visual blood loss estimations during waterbirth	Dr Ethel Burns (Oxford Brookes)
Vygotsky's unfinished legacy: Using sociocultural theory and CHAT in your research	Marion Waite (Oxford Brookes)

VentureFest Oxford 2019 (11/9/2019)

VentreFest 2019 included special sessions on three of the areas targeted by the new UK Research and Innovation body; USA, China and India. UKRI seeks to create the best possible environment for research and innovation to flourish. Also sessions and a technology showcase around the four Grand Challenges identified by the UK Industrial Strategy; Artificial Intelligence & Data, Ageing Society, Clean Growth and Future of Mobility. Professor Carding chaired a session on Ageing Society and Professor Helen Dawes presented on OxCATTs.



BRITE with Innovate UK (31/5/2019)

This Business Research Innovation and Technology event was for individuals and businesses keen to explore these areas, get advice and funding support from Innovate UK, and those looking to network and share ideas on exciting growth areas.



Council of Deans of Health Research Strategy

Professor Carding, Professor Appleton and Dr Walthall are delegates at the Council of Dean's Research Strategy Conference, a one-day event exploring research excellence, capacity building and research in a global and interdisciplinary context. The conference is designed for research leads in nursing, midwifery and allied health faculties and those interested in strategic thinking around increasing health research capacity and fostering excellence in health research.



Professional Nursing Doctoral Programme 2019

The Professional Doctorate in Nursing (DNurs) is a part-time doctoral programme which is aimed at nurses who wish to remain in practice but who also want to develop their knowledge and skills in research to enable them to become independent nurse researchers.

Name	Title	DoS	Date of Enrolment
Helen Ayres	An exploration of the experience of mental health nurses who have been assaulted by patients in secure mental health settings	Walthall	23/09/2017
Sally Basset	How do Chief Nurses and their colleagues perceive the success of the Chief Nurse leadership role?	Scott	23/09/2017
Erin Booth	Partnership working between MH services, police and ambulance services in addiction acute admissions	Aveyard	17/09/2018
Maxine Buyanga	How do organisational and social contexts influence nutritional intake during mealtimes on a care of the older person ward?	Aveyard	23/09/2017
Lynda Dix	Constant observation in the forensic mental health setting to inform decision-making	Kozłowska	17/09/2018
Samantha Donohue	What is the experience of professional enjoyment of nursing?	Appleton	23/09/2017
Reema D'Souza	The experience of mental health nurses working in an acute general medical environment in an acute trust	Walthall	17/09/2018
Alexandra Evans	What impact does nurse leadership have on patient safety?	Malone	17/09/2018
Matthew Fowler	Management of low risk febrile neutropenia in outpatients	Watson	17/09/2018
Angela Griffiths	Does obesity influence quality of life and patient experiences following catheter ablation for atrial fibrillation?	Walthall	23/09/2017
Kirsty Hammett	What effect does non-medical intervention have on MPN patients' symptoms?	Watson	17/09/2018
Karen Lascelles	Experiences and support needs of adult carers of adults at risk of suicide: a mixed methods study	Appleton	23/09/2017
Anne Marland	Exploration of endocrine late effects following childhood chemotherapy	Schutz	17/09/2018
Lucy Speakman	Experience a community respiratory nurses of managing refractory breathlessness in chronic conditions	Walthall	23/09/2017
Elaine Strachan-Hall	What do nurses think the future role of robots could be in assisting the delivery of therapeutic nursing care?	Walthall	23/09/2017
Karen Sheehy	Practice assessor model and student nurse placements	Venkatasalu	16/09/2019
Marie Cozens	The experiences of service users with autistic spectrum disorder (ASD) who have been admitted to an inpatient mental health mainstream setting	Henshall /Walthall	16/09/2019
Katie Mills	Shared decision making between frail older people and community nurses	Carding	16/09/2019
Heleno Ferrazo	Factors that influence career choice among student nurses	Schutz	16/09/2019
Lucy Parsons	The role of the matron is paramount to the effective delivery of the new NHS Plan (2019) within clinical services of an acute hospital	Walthall	16/09/2019
Jon Revis	What are nurses experiences of playing patient roles during clinical simulation?	Schutz	16/09/2019
Hayley Lawson-Wood	What factors affect staff retention on children's cancer wards in the UK?	Schutz	16/09/2019
Claire Coughlan	A study of the impact of the recovery package on colorectal cancer survivors	Watson	16/09/2019
Simon Jones	What is the effectiveness and cost effectiveness of different ways of identifying age-related and other physical and mental health conditions, in people growing older with learning disabilities?	Aveyard	16/09/2019
Ria Betteridge	Nurses assessment of wound care and management	Aveyard	16/09/2019
Lian Lee	Impact of emerging surgical robot technologies on perioperative nursing clinical role and its implication for specialist education and training	Walthall	16/09/2019

OXINMAHR AIMS

Under the new directorship of Professor Paul Carding, OxINMAHR has redefined its remit, structures and activities.

In 2019 OxINMAHR was confirmed as a faculty-wide research institute which encompasses a range of health disciplines.

The key aims are to:

- Produce world-class research which aligns with government and international health and social care priorities
- Build a community of inter-disciplinary research scholars to facilitate integration and maximise impact
- Develop research capacity within and across professions, disciplines and departments
- Develop sustainable research collaborations with world-class partners

KEY STAFF APPOINTMENTS IN 2019



Paul Carding



Jonathan Tammam



Cathy Henshall



Zoe Davey

- Director of OxINMAHR: Professor Paul Carding (January 2019)
pcarding@brookes.ac.uk
- Professor of Nursing Research (to commence 2020)
- Director of Oxford Brookes Centre of Nutrition and Health: Dr Jonathan Tammam (August 2019)
jtammam@brookes.ac.uk
- Senior Research Fellows:
 - Dr Cathy Henshall (NIHR 70@70 Senior Research Leader - appointed June 2019)
chenshall@brookes.ac.uk
 - Director of Nursing Research Oxford University Hospitals Trust (to commence in 2020)
- OxINMAHR Research Fellow: Dr Zoe Davey (April 2019)
zdavey@brookes.ac.uk



OxINMAHR RESEARCH CENTRES AND GROUPS

A key strategic goal of OxINMAHR is to develop and maintain a strong research environment which facilitates multidisciplinary collaboration and maximises impact.

The internal structure of OxINMAHR comprises three Research Centres and four additional Research Groups.



Active PhD students (including 20 new students in 2019)

Name	Title	DoS	Completion
Nadeem Khan	Exploring and analysing the issues around retention of nursing workforce in critical care areas	Walthall	2021
Yaomeng Liu	The mechanism of in-vitro cellular response to extracellular vesicles from actively and passive movement	Dawes	2021
Catherine Lowenhoff	Safeguarding children: Working with children and families	Appleton	2020
Neesha Oozageer Gumowa	Nurse Education and Pressure Injuries: a case study to examine education delivered to student nurses within Higher Education Institutions in England surrounding identification of pressure injuries amongst people from a diverse cultural & ethnic background	Walthall	2021
Jackie Parsonage	Occupational Therapy and 'At Risk' populations: a mixed method investigation to develop a specialised intervention	Dawes	2020
Parvati Perman-Howe	The effect of alcohol strength on alcohol consumption: a randomised controlled cross-over pilot trial	Foxcroft	2021
Georgios Saltouras	The association between micronutrient status and quality of life during and post-treatment for pelvic cancer survivors	Watson	2020
Kimberley Slessor	An intervention for the prevention of weight gain following the prescription of steroid treatment in paediatric neurology patients	Collett	2022
Nasim Soleyamni Majd	Antioxidant activity of Rhus coriaria L. (Sumac) extract and its health benefits (in vivo and vitro studies)	Lightowler	2020
Robyn Stiger	Physiotherapy-led rehabilitation for surgical patients with cancer: developing a best practice complex intervention to improve post-operative complications	Collett	2024
Sheera Sutherland	Physical activity and chronic kidney disease: a cross-sectional study in haemodialysis patients Investigating their motivators and barriers towards exercise	Dawes	2021
Anthanasios Tektonidis	Exploration of life-style including dietary patterns on later life quality of movement	Esser	2021
Laura Tucker	Does enriched rehabilitation promote upper limb motor recovery on an acute stroke unit?	Collett	2025
Suzanne Watts	A qualitative multiple case study of child protection referrals from primary health care to children's social care	Appleton	2020
Benjamin Weedon	Exploring physical activity in children considering both the movement quality and quantity	Esser	2021
Julie Young	What are registered nursing mentors	Schutz	2025
Najmeh Zare	Reducing side-effects of long-term treatment and disease in children and adolescents with arthritis using exercise and diet	Dawes	2022
Monica Duman	How are assessment tools and chronologies used by health and social care professionals to identify child neglect?	Appleton	2022
Samuel Burden	OxSOCRATES	Dawes	2022
Ali Golchoobian	The effect of sodium and glycerol induced hyperhydration on hydration levels during fasting	El-Chab	2022
Sophie Lawrie	Do dietary interventions aid in the recovery from physical activity and improve fatigue symptoms in people with Parkinson's (PwP) and is this due to altered substrate utilisation and improved mitochondrial functioning?	Coe	2022
Zoe Taylor	Resistance and physical activity training for fall rehabilitation and analysis of falls with the aim of prevention in males and females over 65	Esser	2022
Fiona Tierney	Parenting and child sleep	Wiggs	2022
Elizabeth Jestico	What are parents' experiences of being supported by significant others, when faced with making decisions about their child's cancer case? A phenomenological study	Appleton	2025

DOCTORAL PROGRAMMES

The Doctoral Training Programme (DTP)

All OxINMAHR research students are members of a FHLS Doctoral Training Programme (DTP). A majority of students are member of the Applied Health, Nursing and Midwifery DTP run by three Postgraduate Research Tutors (Professor Jane Appleton, Professor David Foxcroft and Professor Eila Watson). The DTP provides research training in addition to opportunities and courses, both within the Faculty and centrally through the Graduate College.

Doctor of Philosophy Degrees awarded in 2019

Name	Title	DoS
Nicole Colloco	The experiences and needs of younger couples affected by prostate cancer; a qualitative study.	Watson
Kimberley Harcourt	How do social relationships influence men's weight?	Clegg
Jonathan Hyslop (MPhil)	How do peer networks enable service users and informal carers to obtain and manage personal budgets?	Appleton
Majd Mohammed Younis Jan	Association of dietary and phosphatidylcholine supplement intake with cardio-metabolic biomarkers among normo- and hyperlipidaemic individuals	Thondre
Awatif Musallam Salem Almeahadi	The effect of polyphenol-rich flaxseed muffins on glycaemic, insulinaemic and 24-hour glucose response in health adults	Lightowler
Samuel Richardson	A study on the effects of music on performance outcomes of judo competitors	Bibby
Ameerah Mohammedkhairi Almaski	Can polyphenol-rich millets affect glycaemic response, insulinaemic response and gastric emptying in prediabetes?	Thondre

Active PhD students (including 20 new students in 2019)

Name	Title	DoS	Completion
Mamdooh Alzyood	A sequential mixed method study to promote hand hygiene compliance among undergraduate nursing students	Aveyard	2020
Urvita Bhatia	Understanding why initially promising prevention programmes do not seem to work as well in different contexts and settings	Foxcroft	2022
Aakash Bhatt	The impact of subfertility and successful fertility treatment on long-term mental health of women	Appleton	2022
Helen Bosley	Maternal attitudes to antibiotic use: a community-based case study	Appleton	2021
Nicole Cordell	Factor analysis of the impact of chronic health problems on workability	Dawes	2021
Terry Cordrey	Using a modified intervention mapping approach to develop an active recovery programme for hospitalised older adults with frailty	Dawes	2025
Helene Eisenhut	Do less motivated persons (60-85 years) in prison get lower results at the end of the regularly cognitive training?	Collett	2024
Ben Ellis	Clinical reasoning and long-term spasticity management	Collett	2024
Leisle Ezekiel	How does post stroke fatigue affect the stroke survivors' participation in their daily lives	Dawes	2021
Mildred Flores Verastegui	Dietary bioactive compounds and health benefits of <i>Pachycereys grandis</i>	Thondre	2021
Erin Hannink	The exploration of sagittal plane deformity	Dawes	2021
Lauren Harding	How do school nurses identify and work with school-aged children at risk of child abuse and neglect	Appleton	2020
Josephine Jacobs	A resilience intervention programme for parents in the 21st century	Appleton	2023
Amjad Hasan Amin Jarrar	Assessment of nutrient intake and urinary sodium excretion among UAE population	Lightowler	2022

A synopsis of 2019 activities for all of the research centres and groups is presented below

RESEARCH CENTRE: MOVEMENT, OCCUPATIONAL AND REHABILITATION SCIENCES

Centre Director: Professor Helen Dawes
hdawes@brookes.ac.uk



Helen Dawes



Jonny Collett



Patrick Esser



Shelly Coe

Clinical Exercise and Rehabilitation

Lead: Dr J Collett jcollett@brookes.ac.uk

This research group focuses on developing and evaluating exercise interventions and exercise response in health and disease. The research covers a range of populations and settings, from community services for sedentary people including physiological/neurophysiological mechanism testing in the lab and in adults and children with neurological and degenerative conditions. Recently completed studies include:

a) 'Fit to study' (an RCT to test the impact of a PE teacher training intervention in 104 schools designed to try to optimise brain and cognitive function (www.fit-to-study.org))

b) EPIC 2 (a comparative trial of exercise and motor control intervention for children with developmental co-ordination disorder). Ongoing studies include evaluating the 'First Steps' Program (peer-led support for people newly diagnosed with Parkinson's (www.parkinsons.org.uk/professionals/first-steps-people-newly-diagnosed-parkinsons)), 'OxSOCRATES' (a trial of a prevention programme for children at risk of cardiovascular disease) and 'Stand up for CP' (exposure response to different exercise intensities on glucose metabolism and cognitive markers).

Movement Science

Lead: Dr P Esser pesser@brookes.ac.uk

The Movement Science Group leads on measuring quality and quantity of movement in various national (MRC Insight46, SABRE, Whitehall II (Oxford) and international cohorts (China, Jordan, Mexico, Japan) surrounding general ageing, Multiple Sclerosis, Parkinson's, Diabetes and various other conditions. In addition, this group undertakes the continuous development of novel and bespoke outcome measurements, algorithms and data analysis programmes for both academic researchers (both nationally and internationally) as well as allied health professionals and commercial companies. Within the past 12 months, the group has completed the largest project of its kind to study motor learning in adolescents with potential developmental coordination disorders from a neural and movement perspective. The team have also

supported 2 PhD students to completion, had 9 publications accepted with a further 7 submitted at the time of writing.

Occupational Science

Lead: TBC

The work of the Occupational Sciences group is underpinned by two themes:

- 1) Understanding how people's engagement and participation in their everyday activities support their health and wellbeing.
- 2) Contributing to and developing evidence based interventions to enable engagement in meaningful occupations.

Current project include development of a smart ecological momentary assessment of fatigue in those with acquired brain injury in order understand and how fatigue limits participation in social, leisure and work activities and developing an intervention for young people who are experiencing the early stages of mental health problems. Projects in development include working the OT team at Oxford Health investigate 'off the shelf' digital technology for supporting/improving health behaviours people in the community.

Clinical Applied Nutrition

Lead: Dr S Coe scoe@brookes.ac.uk

There are several projects on going looking into paediatric neurological and autoimmune conditions include paediatric Multiple Sclerosis, Cerebral Palsy (CP) and Rheumatoid Arthritis and lifestyle interventions including diet and exercise for improving the symptoms of the conditions. Current studies include 'Stand up for CP' a study looking at breaking up sitting time with physical activity and the effects on glucose metabolism and cognition in order to develop an intervention for schools. There are also several funded projects looking at large data sets including diet patterns over the lifestyle on impact on later life quality of movement. A PhD student began in September 2019 who will look at diet and exercise interventions for improving fatiguing symptoms in adults with Parkinson's. Coe is PI on revalidating the NICE guidelines for young people with mild to severe ME/CFS. The research group have published seven papers in high quality journals in 2019.

RESEARCH CENTRE: THE CENTRE FOR NURSING, HEALTH AND SOCIAL CARE RESEARCH

Centre Director: Dr Mary Malone
mmalone@brookes.ac.uk



Mary Malone



Eila Watson



Jane Appleton



Helen Walthall

Supportive Cancer Care

Lead: Professor E Watson ewatson@brookes.ac.uk

The SCCRG focusses on developing and testing supportive care interventions which address identified needs for people living with and beyond cancer and their carers/family members. The past year has seen a number of important grant successes for the group and publication of over 15 papers in peer-reviewed journals. One major achievement was an NIHR PGfAR award to Watson (Co-PI) and Brett (Co-applicant) which aims to support women with breast cancer with adherence to adjuvant endocrine therapy (SWEET). Also a second NIHR programme grant with Brett as Co-I and Watson as collaborator which will trial a new, risk-stratified approach to follow-up for Head and Neck cancer (PET-NECK2 – final funding decision pending). Brett has also been awarded a Cancer Research UK grant to explore pharmacist attitudes and behaviours regarding the use of e-cigarettes in people diagnosed with cancer. In addition, Henshall has received funding from Mesothelioma UK to map treatment pathways, Alexis to explore the experiences of black men with prostate cancer and Matheson, an early career researcher, has secured her first grant award (UCare Charity) as PI to explore men's experiences of prosthesis for testicular cancer. Completion of the Life After Prostate Cancer Diagnosis - a large four year collaborative research programme funded by Prostate Cancer UK/Movember (OBU one of 5 partners) has been another highlight. The study recruited over 36,000 men and to date there have been over 15 publications, with the findings being used to influence policy and practice. The group also continues involvement with a number of significant national cancer trials including the Mammo-50 (an HTA funded trial seeking to establish the optimal breast screening interval for women post-breast cancer diagnosis) and CLASP (an NIHR funded PGfAR which is trialling internet based lifestyle and wellbeing support for cancer survivors in primary care).

Children and Families

Lead: Professor J Appleton jappleton@brookes.ac.uk

This group undertakes research on safeguarding, child protection, child health, looked-after children, and the role of the family unit including parenting, school, and community influence on children and young people's health and wellbeing. This research group currently has two NIHR grants under review. An EU grant led by the University of Tampere, Finland on Child Maltreatment will be starting in November 2019. The group's research seminar series regularly attracts an audience of 30-40 researchers, clinicians and students. A joint PhD funded studentship commenced in September 2019 with Social Work. Monica Duman (PhD student) is investigating 'How assessment tools and chronologies are used by health and social care professionals to identify child neglect?'. This project is supported by the Oxfordshire Neglect Strategy chaired jointly by OCC and Oxford Health. Our INTALECA student Emily Colbrook successfully completed the Children's Nursing undergraduate programme this year. Professor Appleton has been appointed for the second year to the HEE/NIHR/NHS Clinical Doctorate Research Fellowship Scheme Review as a Panel member. She is also an expert member of Coventry and Warwickshire NRES Research Ethics Committee and is currently vice-chair.

Nursing Practice

Lead: Dr H Walthall hewalthall@brookes.ac.uk

The focus of this research group is long term conditions, with two strands which focus on cardiovascular health and diabetes. Relevant to both strands are the mental health wellbeing and self-care management of patients and carers. As the group is new (commenced May 2019), the aim of the group is to increase research capacity and capability in nursing through clinical collaborations and collaborations with nursing research groups at other HEIs. The aim of the group is to increase publications and grant applications from nursing. Since the inception of the group, we have established research collaborations with OUHFT, Oxford Health, University of East Carolina and a number of national and international HEIs. The members of the group have published a number of papers and been successful in securing funding from grant submissions and PhD studentships.



DEVELOPING NATIONAL PARTNERSHIPS



NIHR Academy

- OxINMAHR is hosting an NIHR workshop entitled 'Capitalising on NIHR opportunities for non-medics' on the 10 January 2020.
- The main presenter is Professor Anne-Maree Keenan (Associate Dean NIHR Academy).
- The workshop will discuss the national NAHP agenda and how to maximise OxINMAHR staff and student opportunities within NIHR structures.



NIHR Policy Research Programme

- OxINMAHR and Oxford AHSC are currently in negotiations to host a **National NIHR Policy Research Programme Workshop for Nursing and Allied Health Professionals (NAHPs)**
- The aim of the workshop is to identify national PRP priorities for NAHP research in areas such as workforce and advanced/extended practitioner roles.



NIHR Research Incubator

- OxINMAHR (Carding CI and Conway CI) is part of a bid to establish a national NIHR Research Academy Incubator to be based at the Royal College of Surgeons of England.
- This academy (called NIRMIS) aims to build research capacity for all professions involved in surgical intervention (robotics and minimally invasive surgical approaches). This includes pre and post-operative nursing and AHPs as well as peri-operative Theatre Nurses and Operating Department Professionals.
- Pending outcome



UK Research and Innovation: Strength in Places

- OxINMAHR is part of an Oxford-wide application for the competition 'UK Research and Innovation strength in places fund: Wave 2 EoI' focussing on digital health (outcome June 2020)



Council for Allied Health Professions in Research (CAHPR)

The Council for Allied and Health Professions Research (CAHPR) aims to strengthen the professions' value and impact and raise profile and influence.

- The OxINMAHR Director (Carding) is currently a member of the professoriate advisory board for CAHPR.

DEVELOPING PARTNERSHIPS IN OXFORD cont.



Oxford Academic Health Science Centre



The Director of OxINMAHR (Carding) and Chief Operating Officer (Mr Glenn Wells) meet monthly. Glenn Wells is also a member of the External Advisory Board. This collaboration is also planning several workshops and conferences for 2020.

Oxford Applied Research Collaboration (Oxford ARC)



A number of senior OxINMAHR academics attended the AHSC/ARC 'Research and Innovation Priorities' workshop on 5/9/2019.

OxINMAHR (Carding) and Oxford ARC are currently completing a mapping exercise to ensure maximal collaboration.

Formalising and strengthening relevant partnerships within a national context is evidenced in the following ways:

Visiting Researchers

Visiting Professorial Fellows	Visiting Fellows
Professor Jenny Kurinczuk (Oxford)	Mr Steve Kemp (Leeds)
Professor John Hall (Australia)	Dr L Coles-Kemp (London)
Professor Catherine Stoddart (Australia)	Dr Joan Gandy (Hertford)
Professor Kim Usher (Australia)	Dr Tom Balchin (Surrey)
Dr Julian Stowell (USA)	Dr Beatrix Ruckli (Oxford)
Professor Jane Fossey (Oxford)	Dr Wail Ahmed (Bucks)
Professor John Harrison (Sussex)	Dr William Padula (USA)
Professor Wendy Cross (Australia)	Dr Giles Yeates (Leeds)
Professor Denise Wilson (New Zealand)	Dr Udo Kischka (Oxford)
Professor Brian Dolan (Ireland)	Dr Torge Wittke (Germany)
Professor Alison Kitson (Australia)	Mr Tim Theologis (Oxford)
Professor Dickon Weir-Hughes (Oxford)	
Professor Tonda Hughes (USA)	
Professor Karen Barker (Oxford)	
Professor John Daly (Australia)	
Professor Jane Phillips (Australia)	

RESEARCH CENTRE: THE OXFORD BROOKES CENTRE FOR NUTRITION AND HEALTH



Centre Director: Dr Jonathan Tammam
jtammam@brookes.ac.uk



Jonathan Tammam

The Centre aims to undertake leading edge research focused on tackling overweight and obesity, improving glycaemic control and reducing inflammation, thereby helping to improve the health and well-being of the global population. OxBCNH continues with commercial work and has signed 9 new commercial contracts during the year. The majority of the studies were glycaemic and insulinaemic response studies with one longer term cannulation study involving appetite/gut hormones.

Many contracts have confidentiality agreements in place, impacting the ability of the Centre to publicise the successes of the commercial research and consultancy. Academic research was well represented at Nutrition Society Winter and Summer Conferences, Federation of European Nutrition Society, European Congress of Obesity, and the British Feeding and Drinking Group Annual Meeting. During the year the Centre once again accommodated international students from France and Spain.

ADDITIONAL RESEARCH GROUPS



Prevention Science Research Group

Lead: Professor David Foxcroft david.foxcroft@brookes.ac.uk

The Prevention Science Group is an interdisciplinary research team dedicated to investigating the development and impact of prevention efforts for physical and psychological health and wellbeing. We carry out high quality national and international research studies into the causes, consequences, and prevention of poor physical and mental health. The focus of the group is to promote healthy behaviours with a view to preventing or mitigating lifestyle risks to health and wellbeing. The scope of the group spans the harms associated with substance misuse (eg alcohol, tobacco, illicit drugs), lifestyle behaviours (eg poor diet, lack of exercise), and poor mental health. Our research has been supported by grants from the MRC, ESRC, NIHR, CRUK, JRF, the EC and the AHMRC, with over £8 million of funding awarded for research projects and knowledge exchange activities.



Sport, Exercise and Physical Activity Research Group

Lead: Dr Peter Wright pwright@brookes.ac.uk

The health research focus group of SEPARG contributes to the understanding of effective methods for health promotion and rehabilitation, with a particular emphasis on the role of sport, exercise and physical activity in health promotion and rehabilitation drawing from the expertise of a diverse multidisciplinary team. They investigate the use of exercise, and lifestyle interventions to improve physical health and psychological wellbeing in the general public and for patients suffering from various acute and chronic medical conditions. They are also exploring strategies to improve injury prevention practices within the domains of sport, exercise and physical activity, including emphasis on concussion management protocols, muscle injury risks and paediatric orthopaedics. Recent projects include: Exercise interventions to improve cognitive and physical function of older adults; an EU funded Tackling Colour Blindness in Sport (TCBIS); Breast Cancer Prehab study in collaboration with Nuffield Health and Stirling University; Paediatric Oncology and Exercise Therapy (POET) study (recently completed); MLTC data-linkage study in collaboration with Kings College London and South London and Maudsley NHS Trust; DEPTH study with OCDEM (Oxford University).



Cardiorespiratory Research Group

Lead: Dr Shakeeb Moosavi smoosavi@brookes.ac.uk

This group explores functional interactions between the brain, lungs and the heart with particular focus on neurophysiological mechanisms underpinning the perception of breathlessness (dyspnoea). The research is multidisciplinary involving cardiorespiratory physiology, psychology, cardiology and neurology. Projects are wide ranging including a clinical trial of inhaled furosemide for symptom relief in advanced heart failure and investigation of neurological patients with ischaemic strokes, low grade gliomas or with implanted electrodes for deep brain stimulation involving areas of the brain suspected of being essential for appropriate breathlessness perception.



Radiation Biology, Genetic instability and Cellular Communication Research Group

Lead: Professor Munira Kadhim mkadhim@brookes.ac.uk

This research group investigates some of the questions regarding induction of genomic instability and bystander effect. They are particularly interested in molecular communication between cells and the functional effects on a population of cells. One mechanism of communication is through extracellular vesicles, specifically exosomes. These are small vesicles released by all cell types under normal and stressed conditions. It appears that following radiation exposure, cells release a qualitatively different type of exosome that can induce bystander effects in unirradiated cells. This fact has profound implications for radiation exposure particularly those undergoing radiotherapy as well as those exposed to radiation in an occupational setting.



Psychology Research

Represented by Professor Anna Barnett abarnett@brookes.ac.uk

Health-related research takes place across the four research groups in Psychology: Applied Social & Health Psychology, Prevention Science (see above), Developmental Psychology, Cognition and Cognitive Neuroscience. There has been ongoing work on major projects funded by the NIHR (Changing Agendas on Sleep, Treatment and Learning in Childhood Epilepsy - CASTLE and Good Behaviour Game). We have also had new research funding from Cancer Research UK (£49,733) 'Community and Hospital Pharmacists and E-cigarettes' partnered with Supportive Cancer Care Group (see above); ME Research UK (£38,676) 'Investigating sensory processing and cognitive function in people with and without ME'. Staff have had work published in a range of journals including Psychology, Health & Medicine, Psychology & Health and The Psychologist. They have also presented work at various conferences including the Indian Psychiatric Society Annual Meeting, European Society for Prevention Research Conference, Division of Health Psychology Annual Conference, British Sleep Society Scientific Meeting and British Association of Cognitive Neuroscience. Awards and honours include Professor David Foxcroft's award of the EuSPR Slobada medal for his sustained contribution to development of Prevention Science and PhD student Urvita Bhatia being named in the Top 100 Innovative Women leaders in Global Mental Health.



DEVELOPING PARTNERSHIPS IN OXFORD

A key strategic goal for OxINMAHR in 2019 was to formalise and strengthen the partnerships both within the Oxford research ecosystem and more nationally. Progress has been achieved in the following ways:

The Oxford Biomedical Research Centres (BRC)



Carding and Malone are members of the Oxford University Hospitals BRC. Carding is a member of the Oxford Health BRC steering committee. These steering committees have responsibility for strategic and scientific direction and meet monthly.



Carding was also a part of the Midterm Review for Oxford Health BRC (10/10/2019) and Oxford University Hospitals BRC (12 and 13/11/2019).



OxINMAHR External Advisory Board



The External Advisory Board was established in October 2019. The purpose of the External Advisory Board is to advise the OxINMAHR Management Group on research strategic direction and to maximise collaboration across institutions.

OxINMAHR External Advisory Board Membership:

Director (Chair)	Paul Carding
Representatives from OxINMAHR Management group	David Evans and Mary Malone
Oxford Academic Health Science Centre	Glenn Wells
Oxford University Hospitals Trust - Chief Nurse	Sam Foster
Oxford University Hospitals Trust - R and D Lead	Keith Channon (also Deputy Head of Medical Science Division (research)) at OU
Oxford Health - Chief Nurse	Marie Crofts
Oxford Health BRC	John Geddes (also Oxford Health R and D Lead)
Oxford University Hospitals BRC	Helen McShane
Oxford County Council	Sarah Breton
Administrative support	Zoe Davey

Oxford Academic Health Science Network



The Director of OxINMAHR (Carding) is a member of Oxford AHSC Research and Development group which meets four times a year. A number of senior OxINMAHR academics attended the AHSC/ARC 'Research and Innovation Priorities' workshop on 5/9/2019 which aimed to identify opportunities for future NHS/research collaboration, inform a regional statement of research and innovation needs and help shape the future collaborative work of the Oxford AHSN and the new NIHR ARC Oxford and Thames Valley.



GRANT AWARDS

- OxINMAHR researchers currently manage a total research portfolio of over **£2.3 million** (ie funding for current on-going studies).
- In 2019 OxINMAHR researchers have been awarded 26 research grants (total value of £1,265,740) and 11 consultancies (total value of £128,894) with a combined total value of **£1,394,654**.

OxINMAHR researchers are supported by a wide arrange of funding bodies including:

NIHR (Health Technology Assessment)	Action Medical Research	Department of Education
NIHR (Applied Research)	British Heart Foundation	Cancer Research UK
NIHR (Policy Research)	General Nursing Council Trust	Hospice UK
Wellcome Trust	Bowel Cancer UK	Royal College of Nursing
Macmillan Cancer Support	Pancreatic Cancer UK	ME Research UK
OUHT BRC	Parkinson Disease Society	British Council
Oxford Health BRC	MS Society	Mesothelioma UK
Children in Action	Action for ME	
Health Education England	Pancreatic Cancer UK	

OXFORD CLINICAL ALLIED TECHNOLOGY AND TRIALS SERVICES UNIT (OXCATTs)

OxCATTs is a SMART clinical trials unit focusing on digitalisation, communication and interaction to provide bespoke research support and expertise to academics, businesses and organisations. Set up in December 2018, OxCATTs is funded through Brookes' Higher Education Innovation Fund (HEIF) and progress is monitored by the Research and Knowledge Exchange Committee.

The OxCATTs team of clinical trial and research specialists provides world-leading support to clinician, academics, innovators and developers of healthcare technology to develop robust clinical evidence and data. The support is tailored to individual businesses, organisations or projects, working in close partnership to configure the trials, the service activity modules delivered and the level of support:

- Bespoke modular units for individualised customer needs
- Rapid cost-effective solutions
- An open approach to discussion and tailoring offerings
- Supporting single innovators or large companies with clinical trial requirements

OxCATTs is driven by operational excellence and has close links to stakeholders within the NHS. The unit can provide exceptional support and expertise. With a core team which includes experienced senior researchers, trial manager, trial co-ordinator, data manager and statistician, OxCATTs is undertaking a range of trial and research-related services including work to help develop NICE's new guideline on the diagnosis and treatment of myalgic encephalomyelitis/chronic fatigue syndrome (ME/CFS), ensuring that the guideline reflects the experiences of children and young people.

The unit has also been included in numerous grant funding applications and recently delivered a session at The Hill's 'Market Access Accelerator' workshop. www.brookes.ac.uk/shssw/research/centres-and-groups/mores/oxcatts/





RESEARCH COLLABORATION

OxINMAHR researchers work with a range of NHS, government, charity, public and industry partners to leverage national and international support. Researchers also partner with the public to identify and develop shared research projects and activities.

Recent university collaborations include:

Oxford University	Bond University, Australia	Bristol University
Newcastle University	Durham University	Cambridge University
University College London	Imperial College London	Columbia University
Medical University of Graz	Queen's University Belfast	Nottingham University
University of Ottawa	University of Tampere	Institute of Medical Genetics, Denmark
King's College London	University of London	University of Southampton
Australian National University	University of Birmingham	University of Sao Paulo
Imperial College London	Leeds University	Cardiff University
University of Jordan	University of Technology Sydney	University of Warwick

Recent NHS, government, charity and industry collaborations include:

Oxford University Hospitals Trust	Nuffield Orthopaedic Centre
Oxford Health Foundation Trust	Nuffield Department of Public Health, Cancer UK
Newcastle Hospitals Foundation Trust	Parkinsons Disease Society
Queens Medical Centre, Nottingham	Children in Action
Oxford Centre for Functional Magnetic Imaging	Oxford City Council
UCL Hospitals Trust	Oxford Healthwatch
Oxford Department of Primary Care	Cambridge Medical Robotics
Royal Berkshire Hospital	Olympus Technologies Europe
Oxford Heart Centre	

Improving identification and support of individuals with handwriting and movement difficulties through development of assessment tools

Professor Anna Barnett

This research focusses on the development of a suite of assessment tools has provided health and education professionals worldwide with the means to improve identification of and support for individuals with movement and handwriting difficulties. Impact of the Movement ABC-2 Test and Checklist and two handwriting tests (DASH and DASH17+) is evidenced by their specific recommendation in national and international guidelines. International sales figures, the number of translations and training events evidence their worldwide use by health and educational professionals. Testimonials from practitioners and parents show how these new tools have enabled individuals with movement and handwriting difficulties to gain access to support to help achieve their potential.



Non-Targeted Effects of Radiation exposure: Impact on Radiation Protection and Therapy

Professor Munira Kadhim

This research into 'non-targeted effects' of radiation including Genomic Instability (GI) and Bystander Effects (BE) is of critical importance to the understanding of the interaction of ionising radiation at the cellular and whole tissue levels. Application of her work underpins current approaches to and recent developments in protection at low radiation doses, both nationally (eg DHSC Committee on the Medical Aspects of Radiation in the Environment: COMARE) and internationally (eg International Commission on Radiological Protection: ICRP; United Nations Scientific Committee on the Effects of Atomic Radiation: UNSCEAR). Knowledge of biological mechanisms shows that it cannot be assumed that there is a safe level of radiation exposure, so that the acceptability of exposures must be judged on the basis of cost/benefit analyses. In addition to risks of radiation-induced cancers, there is a growing understanding of the need to protect against non-cancer health effects including lens opacities and cataract.



REF IMPACT CASE STUDIES:

OxINMAHR senior researchers are contributing a number of impact case studies including:

Improving the quality of life of people living with and beyond a diagnosis of cancer

Professor Eila Watson

With earlier diagnosis, improved treatments and an ageing population, the prevalence of cancer survivors in the UK is rapidly increasing. Understanding how quality of life can be maximised is therefore increasingly important. This research focusses on understanding the experiences and needs of people following a cancer diagnosis especially in relation to:

- men with prostate cancer
- patients with pancreatic cancer and
- patients who have had radiotherapy to the pelvic area.

The research has impact on the shaping cancer policy and service development, at both national and local level.



Supporting people with impairments to live healthier lives through exercise and physical activity

Professor Helen Dawes and Dr Johnny Collett

This research has nationally and internationally influenced how exercise and physical activity is supported and delivered for adults and young people with long-term neurological conditions. The team have produced an extensive amount of evidence informing exercise and participation in activity in these populations. The benefits have now been established and exercise is seen as an essential part of managing conditions where it had been previously discouraged. The team have produced evidence to improve understanding and support the specific needs of these individuals. The evidence has also been incorporated into accessible programs and training materials.



Children and Families

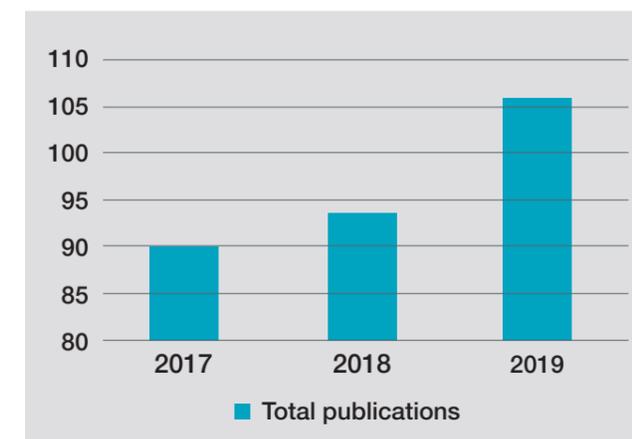
Professor Jane Appleton and Dr Ethel Burns

This research has three related programmes of research which influence and change health care professional practices. 'Think Baby' is an e-learning tool developed specifically for trainee health visitors to help them develop their skills in observing and assessing mother-infant interactions. Think baby has been rolled out to Universities running the health visitor programme across the UK. 'Was Not Brought' is a project arising from UK health care policy to encourage healthcare professionals to take a proactive and child centred stance in ensuring the wellbeing and safety of children who miss appointments. 'Labouring in water and water birth' focuses on the care option of a birth pool facility in which women can labour and/or give birth. This work has reached the clinical and clinical-academic audience across the UK and internationally.



RESEARCH PUBLICATIONS

OxINMAHR researchers disseminate their research findings in a number of ways including: academic publications, seminars, invitational lectures, conferences, public events and social media.



In 2019 our researchers published a total of **106 papers** in peer-reviewed high quality journals

This represents an **11% increase** in total publications compared to 2018 (see graph)

Over the past 3 years OxINMAHR researchers have published **290 papers**

Researchers in OxINMAHR have published in a wide variety of journals including:

- The Lancet Oncology
- BMJ Open
- Trials
- Cochrane Database of Systematic Reviews
- NIHR Health Technology Assessment
- Disability and Rehabilitation
- Journal of Motor Behaviour
- Cancer Epidemiology
- Research in Developmental Disabilities
- Health and Social Care
- Experimental Brain Research
- Journal of Clinical Nursing
- Journal of Human Growth and Development
- International Journal of Radiation Biology
- Pilot and Feasibility Studies
- Respiratory Physiology and Neurobiology
- Disability and Society
- Oral Oncology
- European Journal of Cancer Care
- Prevention Science
- Journal of Clinical Epidemiology
- Clinical Otolaryngology
- Journal of Neurology, Neurosurgery and Psychiatry
- International Journal of Molecular Sciences
- Health Education
- Journal of Advanced Nursing
- Brain Stimulation
- Radiation and Environmental Biophysics
- European Respiratory Journal
- Diabetes and Metabolism
- International Journal of Nursing Studies
- Journal of Sports Science and Medicine
- Frontiers in Psychology
- Child Abuse Review
- Developmental Medicine and Child Neurology



REF 2021 Research Excellence Framework



OUR PUBLICATION HIGHLIGHTS IN 2019 INCLUDE:

THE LANCET
Neurology

Case-mix, care pathways, and outcomes in patients with traumatic brain injury in CENTER-TBI: a European prospective, multicentre, longitudinal, cohort study.
[https://doi.org/10.1016/S1474-4422\(19\)30232-7](https://doi.org/10.1016/S1474-4422(19)30232-7)

BMJ
open
accessible medical research

Experiences and supportive care needs of UK patients with pancreatic cancer: a cross-sectional questionnaire survey.
<http://dx.doi.org/10.1136/bmjopen-2019-032681>

HTA
Health Technology Assessment

A Randomised Controlled Trial of Proton Pump Inhibitors in people with persistent Throat Symptoms (TOPPITS). ISSN: 1366-5278 (in press).

Journal of
NEUROLOGY,
NEUROSURGERY
& PSYCHIATRY

A randomised double-blind placebo-controlled feasibility trial of flavonoid-rich cocoa for fatigue in people with relapsing and remitting multiple sclerosis.
<http://dx.doi.org/10.1136/jnnp-2018-319496>

Trauma,
Violence,
&
Abuse
Review Journal

A Profile of Gender-Based Violence Research in Europe: Findings From a Focused Mapping Review and Synthesis 2019.
<https://doi.org/10.1177/1524838017719234>

BMJ
open
accessible medical research

Cost-effectiveness of a combined classroom curriculum and parental intervention: economic evaluation of data from the Steps Towards Alcohol Misuse Prevention Programme cluster randomised controlled trial.
<http://dx.doi.org/10.1136/bmjopen-2018-027951>

BioMed Central
The Open Access Publisher

BMC Cancer

Quality of life among symptomatic compared to PSA-detected prostate cancer survivors - results from a UK wide patient-reported outcomes study.
<https://doi.org/10.1186/s12885-019-6164-5>

Cochrane

Immersion in water during labour and birth.
<https://doi.org/10.1002/14651858.CD000111.pub4>

Family-based prevention programmes for alcohol use in young people.
<https://doi.org/10.1002/14651858.CD012287.pub2>

OxINMAHR researchers are making a significant contribution to the REF 2021 submission in three units of assessment:

- a. Unit of Assessment 3: Allied Health Professions, Dentistry, Nursing and Pharmacy
- b. Unit of Assessment 4: Psychology, Psychiatry and Neuroscience
- c. Unit of Assessment 5: Biological Sciences

Anticipated full-time submissions for REF2021 are **significantly higher** for all 3 REF2021 Units of Assessment. However, the majority of the researchers in OxINMAHR are contributing to UoA3 (*Specialisms: Primary Care, Clinical Trials, Health Services Research, Public Health, Qualitative Research*).

For UoA3 the headlines are:

A significant increase in staff returned in REF2021

We anticipate to submit n = 27 OxINMAHR researchers for UoA3 REF 2021. This represents a **four-fold increase** in eligible researchers compared to REF 2014.

A broad range of discipline areas returned in REF2021

OxINMAHR researchers submitted for UoA3 represent a range of nursing, midwifery and allied health disciplines.

RESEARCH DISCIPLINE

