

<p>Institution: Oxford Brookes University</p>
<p>Unit of Assessment: 3: Allied Health Professionals, Dentistry, Nursing and Pharmacy</p>
<p>a. Context</p> <p>UoA 3 comprises research groups and staff within the Departments of Clinical Health Care (CHC), Sport & Health Sciences (SHS), Psychology, Social Work & Public Health (PSW&PH) and Biological & Medical Sciences (BMS). Together these comprise the Faculty of Health & Life Sciences, which was formed as part of a major reorganisation of the University into four Faculties in 2011/12. Researchers in this unit of assessment have an established record of engagement with non-academic users in developing our research and a strong commitment to enabling the wider community to benefit from its outcomes. Impact has been primarily in terms of influencing and informing practitioners and professional practice and contributing towards evidence based policy-making and legislation at national and international level. University and Faculty strategies acknowledge the importance of facilitating this, and have supported researchers in achieving impact outside academia by providing expert advice on outreach and knowledge exchange activities, and strategic investment in key areas using institutional HEIF funding. This has enabled research produced before and during the current REF period to have impact for a range of users and beneficiaries, particularly in four main areas: patients and carers of people with long-term neurological conditions and the AHPs and exercise practitioners who support them (Dawes and colleagues, Centre for Rehabilitation); the food industry and related scientific advisory bodies, nutritionists and dieticians, (Henry and colleagues, Functional Food Centre); children and young people at risk of substance misuse and other behaviour problems and their parents and families (Foxcroft and colleagues, My Strong Families Centre); and policy makers, service providers and service users in the areas of homelessness and addiction (Neale [left in 2013] and colleagues in Drug and alcohol theme).</p>
<p>b. Approach to impact</p> <p>Central to our approach to supporting staff and research groups to realise the impact of their research has been the commitment and involvement of Heads of Departments working in partnership with the appropriate research group lead, the University's Research & Business Development Office (RBDO) and the Faculty Associate Dean for Research & Knowledge Exchange (RKE). To focus research activities to address issues of importance to people whose lives are affected, their families and society at large, researchers are encouraged to engage with key stakeholders from the outset. For example, activities in the Centre for Rehabilitation are led by both an adult and children Steering Group (SG), composed of people with a range of neurological conditions and their carers. Researchers work closely with these key stakeholders and local and national patient support groups, clinicians, schools and the public to initiate, direct and disseminate their work. One such example is from the Dawes case study, where a person with multiple sclerosis (MS) on the SG highlighted the research need to explore safe optimal exercise. Funding was then obtained from the MS society who subsequently worked with Dawes to develop and support: training for therapists and fitness professionals through a validated national course; information materials (video, printed and web-based materials and through the media) for clinicians, patients and the public; and through scholarships for therapists and nurses. Another example of working forward from an idea of impact to design and undertake research is exemplified by Smith's support from RBDO, to develop a social enterprise for a community intervention based on Zumba for pregnant women that will provide a platform for her to develop and evaluate further interventions.</p> <p>At the research grant application stage, the principal investigator (PI) is supported by a mentor and members of the Faculty research office (RO), who read, comment on and question pathways to impact. All research active staff produce a rolling five year research plan, which is updated and discussed annually with the Department Research Lead and as necessary the Associate Dean RKE. The plan prompts staff to consider the impact of their research and what support might be required to enable the impact to be achieved, particularly as a funded project draws to a close. Specialist staff within RBDO review and assess the various opportunities open to the PI, including obtaining external expert advice on: dissemination to the public and policy makers, patents, licensing opportunities and spin outs. Neale's work provides an example of University support for her to develop innovative methods to expand the impact of her work,</p>

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exploring the everyday lives of drug users and homeless drug users, to those directly affected and involved in their care and to policy makers. Innovations included: working with policy makers, charities, service providers and users to develop an accessible user friendly book with the Royal Society of Arts, a presentation to a UN expert panel May 2011, a short film supported by the Sir Halley Stewart Trust and through involvement with the Board of 'Wired In', a pioneering on line drug recovery community. Further examples of our approach to optimise impact from research findings is exemplified by Foxcroft's work on the Strengthening Families Programme 10-14 (SFP10-14) through the 'My Strong Family team', a faculty organisation developed to transfer knowledge to help prevent teenage substance misuse and other behaviour problems, strengthen parenting skills and build family strengths.

Key innovation for our faculty has included a flexible approach to optimising impact. For example, Watson has been supported to establish a programme of research at Brookes but who, because of the nature of her work, could not be expected to have impact on her own. The University and Faculty are therefore ensuring that she is able to collaborate with researchers in other research intensive institutions to enable her to find the best possible ways to disseminate her work and the best possible routes to impact. In many cases, follow-on funding is required to bridge the gap between research outputs and realising their potential for impact. The University Commercial Steering Group, of which the Faculty Associate Dean RKE is a member, oversees the distribution of funds to support such follow-on projects and awards are made typically varying between £2000 and £60,000 to support market research or intelligence reports, proof-of-concept projects, patent applications or bringing in expert advice to secure licence opportunities. However, on occasion larger sums are invested to set up and support a sustainable enterprise activity. A good example of this is the £300K initial investment in setting up the Functional Food Centre, which provided support for Business Development and a Centre Manager as well as equipment and marketing and has now developed into a sustainable thriving business.

The teams are also able to call on support from the University business development team to develop customer focused marketing programmes, the business tools to manage financial resources of a significant enterprise and access training in running a sustainable enterprise. Several members of staff within the UoA have successfully accessed follow-on funding and support of which only a two are represented by the case studies presented in this return: **Henry** and **Dawes**. The proof-of-concept projects vary, from the development of manufacturing process to make bread and bread products with low glycaemic and antioxidant properties, through developing a UK relevant parenting programme and sustainable community exercise programmes, to the development of new algorithms for a clinical mobile movement analysis system, DataGAIT.

Where projects move from research output to potential application, academic staff are actively engaged and supported through regular team meetings between the PI, RBDO, Associate Dean RKTE and if required, University Legal Services. This is best illustrated through the Functional Food Centre. Advice and guidance were provided during the setup of the Functional Food Centre and for the first two years following, and support continues to be provided in setting strategic direction and development including guidance on commercialisation opportunities and contractual know-how. The result has been substantial on-going contractual research and commercial projects that have ultimately led to significant income (£1million since 2008) for the University and UoA 3. In other instances, UoA 3 staff have called upon the external expert advice of ISIS Innovation, who are engaged as consultants, to provide advice on commercialisation of research. In relation to the **Dawes** case study, for example, the researchers who developed DataGAIT are being advised and supported in the formation of a spin out company. Staff are also encouraged to facilitate the transfer of knowledge into companies through acting as consultants.

Almost all academic staff, research fellows and research students within the UoA 3 are also engaged and enthusiastic about outreach and public understanding of science activities. This has been achieved through commitment from Departmental Research Leads and the Associate Dean RKTE, and from University & Faculty investment in a Science Communication & Research Fellow (Osterrieder), who coordinates activities such as an Outreach seminar programme, annual Brookes Science Bazaar, Pegasus Theatre and Dance events, Clinical Exercise Community Participation activities for adults and children, events in local schools and various events and visits for local sixth formers. All research students in the Health Sciences and Biological Sciences Doctoral Training Programmes (DTP) have the opportunity to train as Science Ambassadors in a partnership with Science Oxford. The DTP also includes seminars on maximising the impact of research and the ways in which this can be achieved.

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c. Strategy and plans

The Faculty produces a rolling five year Research & Knowledge Exchange strategy, which is discussed and reviewed with academic staff, research fellows, contract research staff and research students, and incorporated in the Faculty strategy and approved through Faculty and University Research & Knowledge Exchange Committees. Staff also produce rolling five year research plans, which are reviewed each year in discussions with the Research Lead and Associate Dean RKTE. Integral to these discussions are plans to ensure maximum impact from the research and where necessary further discussions take place with the Biological & Health Sciences business development officer within RBDO. RBDO staff assist academics in developing proposals by working from the onset with key stakeholders and involving them in the whole research pathway, from idea inception, writing proposals, to access follow-on funds or external expert advice for optimising impact as previously described. The Faculty receives a fair share of income received from the exploitation or impact of its research activities through the University IP Strategy, which also includes a generous Rewards to Inventors scheme. The Faculty Research and KE strategy outlines (1) how it plans to (continue to) use this income (about £600K and rising annually) to directly support its research activities including funding research studentships, Research Fellowships, bridging funds to support contract staff between grants, start-up funding for new staff, faculty research events and outreach activities, and (2) how it plans to support current researchers to best exploit the outcomes of their research through academic staff working in partnership with staff in RBDO with external expert advice as required. Finally the Faculty works to integrate research into training materials and optimise impact through development of externally validated courses and media (**Dawes case study**).

d. Relationship to case studies

The Henry Case Study: The Henry case study is an example where academic staff (Henry and members of the Food and Nutrition research group) were supported by staff within RBDO and Legal Services to utilise their research and data from a number of studies to develop services including the development of the equations which form the basis of the Henry Case Study. The group were supported to establish the Functional Food Centre (FFC) as a focus for their commercial activities. Prior to the establishment of the FFC, Henry had been successfully working with industry for 20 years. It was decided to set up the FFC in response to increasing demand for services and in order to better commercialise technologies and expand activities to a wider audience. The Centre was supported with initial HEIF funding and then advice, guidance, and assistance in transition to becoming a self-sufficient entity working within the Faculty Structure. RBDO continue membership of the FFC steering group and assist in: setting strategic direction, guidance on commercialisation opportunities and providing contractual know-how and assistance. Food and nutrition researchers have benefitted from the University's Development Campaign which furnished up-to-date nutrition lab facilities which complement their access to a suite of facilities shared with the Functional Food Centre. The Centre hosts an international meeting in alternate years in order to engage with the food industry. Since its inception the centre has worked with over 70 national and international industrial partners including Danisco UK Ltd, Wild Valencia S.A., Roquette Freres, and BENEIO Group. The FFC continues to employ OBU graduates and post-docs, to provide placements, projects and internships for OBU undergraduate students and invests in OBU research by funding or co-funding PhD students. The Centre has developed into being internationally recognised as the leading centre for research into glycaemic response and is one of the largest testing centres in Europe

The Dawes Case Study: The Dawes case study is an example of where academic staff (Dawes and members of the Movement Science research group) and staff within RBDO and Legal Services developed the Centre for Rehabilitation (CfR) in order to provide a formal structure for translating research group outputs. Prior to the establishment of the CfR, the Movement Science group had been translating research outputs in the form of community exercise and rehabilitation Unit (CLEAR) activities (3000 participants/year), and bespoke web-based information materials for patients (5000 downloads) and health and fitness professional (700 participants). The group were supported by external consultants, ISIS Innovations Ltd, Business Boffins Ltd and external commercial advisers to secure patent protection and funding (Technology Strategy Board) for the development of its mobile applications of movement analysis and diagnostic technology (DataGait) and in the setting up of the National charity, the CLEAR Trust to expand the dissemination of their activities. It was decided to set up the CfR in 2012 in order to provide a formal structure for translating research outputs into services and training, and for linking activities to community and commercial partners. The CfR employs OBU graduates and post-docs, provides placements, projects and internships for OBU undergraduate students and visiting clinicians and researchers, and invests in OBU research by funding or co-funding PhD students.