

Universities' Report to STHFT Board of Directors

Wednesday 21st May 2014

UNIVERSITY OF SHEFFIELD

1. *INSIGNEO*

In the last report I mentioned the outline expression of interest submitted by Professor Paul Griffiths in response to call from the MRC: 'Enhancing UK's Clinical research Capabilities and Technologies (Innovative technologies for stratified and experimental medicine)'. I am pleased to report that this bid (£10M with £3M matched Faculty funding) has now got through to the final stage. The outcome will be known in July. The bid seeks a replacement for the 1.5T MR scanner and will create a digital disease phenotype (DDP) lab. The focus is pulmonary MR image acquisition and a computational approach to disease stratification. COPD, asthma, cystic fibrosis and pulmonary hypertension are among the diseases that will be targeted. Space is being sought in the RHH for the new DDP lab close to the hospitals.

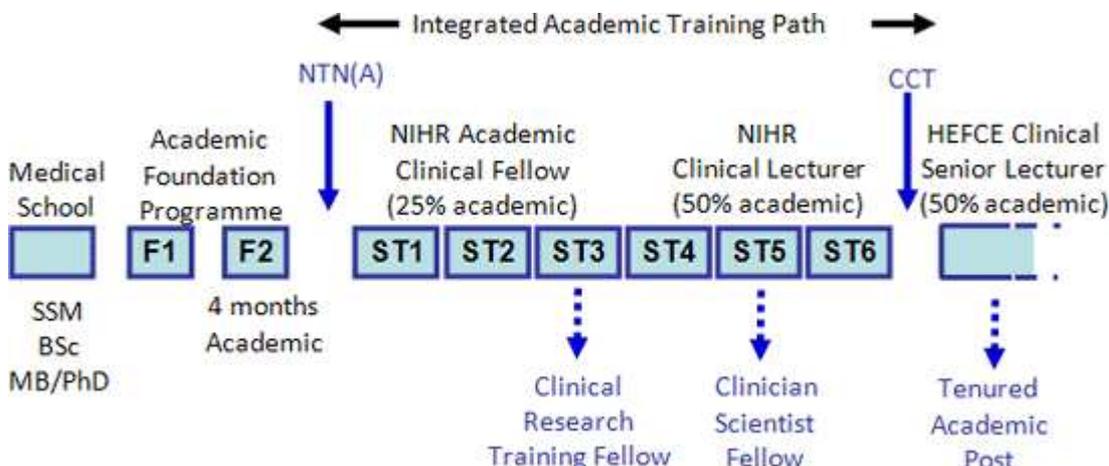
2. *Public Engagement*

The Faculty of Medicine, Dentistry and Health is participating in the University's broad programme of engagement with two events. The first is the Festival of Life – a week of public events, starting on 19th May (the week of the Trust Board so the programme has been precirculated), celebrating health research in Sheffield. There will be film screenings, free health checks, interactive lab demonstrations, fun seminars for school groups, and lectures from our experts on everything from how your heart works to what happens if you don't get enough sleep. There are events for all ages and entry is free. Further details can be found on <https://www.sheffield.ac.uk/life>

We will also be hosting a World War 1 exhibition from June to November, on C floor in the Medical School, commemorating the contributions of Sheffield Doctors and Nurses in WW1 (Dr Derek Cullen has been closely involved in curating this exhibition).

3. *Clinical Academic Training*

At the last meeting of the University of Sheffield Clinical Research Working Group, a report on the current clinical academic training (CAT) pathway was discussed. This pathway is essential in the training of future clinical academics, who have options to undertake research during their Foundation and SpR training, in order to compete nationally for lectureships and senior research fellowships funded by NIHR and other bodies. The scheme is illustrated overleaf.



Professor Dilly Anumba chairs the Sheffield Group which works within the Yorkshire and Humber LETB. The main current issues are:

i. Balancing clinical competence training with research: in the normal course of a academic clinical fellowship (ACF) there are 27 months to do 36 months training as 9 months is used for research. It is not easy within the current system to allow for extensions as the fellowship is linked to the clinical training pathway. Trainee workload needs to be considered.

ii. Obtaining a further research training fellowship

Our current success level is at 40%; ideally we would like to increase this to 80%. Trainees are under prepared for the fellowship application stage and more work needs to be done in the foundation stage of 'crafting' a fellowship-worthy CV. We need to be taking on trainees with strong CVs; an improvement has been noted in the quality of CVs in the current round of ACFs appointed but this is specialty dependent.

iii Matching Clinical Lecturer posts

From 2015 we may need to provide local funding to match CLs funded by NIHR. Leeds has introduced 6 posts in anticipation of the change. More work is being done to clarify this.

The Group decided this item would need further discussion, taking account of the mapping exercise to analyse our current translational research strengths mentioned in the last Trust report, to ensure a strategic approach was adopted.

SHEFFIELD HALLAM UNIVERSITY

Sheffield Hallam University is offering up to 40 fully funded scholarships to study PhDs across the University, twelve of which will be within HWB. This is part of our strategic plan to invest in high-achieving students, integrate research with teaching and increase engagement with businesses, the professions and other partners. The deadline for all applications was the 6 May 2014. HWB have received 94 applications.

Health and Wellbeing Research will be recruiting to three new Professorial posts (2 in Health and 1 in Sport). In addition the Centre for Health and Social Care Research will be recruiting two new Readers.

Health & Wellbeing will be hosting our annual Research Day - 4th June 2014
Venue: Stoddart Building, City Campus

Biomedical Science Research Centre (BMRC)

Imagine connectivity project 2013-2014 were awarded to:

Design and development of a "Tassimo"- style unit for therapeutic stem cell delivery in theatre and clinic. Christine Le Maître, Chris Sammon (MERI) Heath Reed (ADRC) and Vicky Boyes (MERI). To design, manufacture and begin the testing of proof of principle prototypes of small reaction vessels that would facilitate the rapid synthesis of hydrogel in an operating theatre environment and applying the design strategies of pod coffee makers.

Exploring Virtual Reality Prosthetics Christine Le Maitre, Catherine Duckett, Maddy Arden, Andrew Alderson, Ivan Phelan, Carol Garcia, Heath Reed, Denise Eaton (Centre for science education). To use the expertise of a multi-disciplinary team together with input from users and young people to develop a methodology for prostheses design and assessment. To develop a Virtual Reality (VR) system to evaluate the acceptability of resulting designs for upper limb prostheses.

Connecting molecular biology and the public: Development of an effective visualising tool and language for the communication of data around molecular interactions from synthetic membrane systems. Keith Miller (project lead), Patrick McEntaggart (C3RI). The communication of complex scientific data to a variety of stakeholder groups is of paramount importance in the development and understanding of ongoing research. Current tools that are designed for the effective dissemination of technical information are either aimed at an expert audience or an audience of lay people. The goal is to produce a prototype multi-disciplinary tool that has sufficient detail to satisfy the need of the specialist community in their specific fields but that is accessible to a wider audience of non-experts.

Do you see what I see? Malcolm Clench (project lead), Laura Cole, Arul Selvan, Heath Reed, Chris Wright. Issues facing imaging technologies include the dissemination and communication of information contained in multi-modal imaging data sets to not only medical professionals but also to patients and a lay audience. In this project it is intended to address these by examining improvements to medical image viewing software and design issues concerning the communication of medical images to different audiences

OCIB: Overcoming Connectivity in Biofilms Neil Bricklebank (project lead), Keith Miller, Louise Freeman-Parry and Francis Clegg (MERI). Connectivity is not always good: when bacteria connect with each other it can lead to biofilms, protective coatings that hamper efforts to treat underlying conditions such as chronic wounds. If we can overcome this connectivity we can speed-up the treatment of the wound.

A team of SHU scientists including Neil Bricklebank, Louise Freeman-Parry and Keith Miller from the BMRC and Chris Breen and Francis Clegg from MERI, have recently been funded to continue their research into the development of a new material for the effective treatment of infected chronic wounds.

Centre for Health and Social Care Research (CHSCR)

Professor Charmaine Childs with colleagues from MERI in collaboration with Sheffield Children's Hospital and the University of Sheffield have secured IMAGINE Connectivity funding, the project is Thermal imaging developments for wrist fracture screening in children. The value of the funding is £14,336.50. Professor Charmaine Childs has secured funding from Sheffield Teaching Hospital to research Neutropenic sepsis and fever in collaboration with colleagues at Sheffield Teaching Hospital. With colleagues from MERI and Sheffield Teaching Hospital Professor Childs has been Funded to research caesarean and wound infection. The project is funded by the Jessops Wing Trust.

Dr Hilary Piercy as co-principal investigator has secured a Viiv Health Care medical grant, Dr Christine Bowman, Medical Director at the Sheffield Teaching Hospital is the Project Lead. This project aims to develop evidence based recommendations for MDT HIV service delivery that maximises the contribution of nurses working in advanced practice roles in order to enhance clinical outcomes and standards of care.

Rachel Ibbotson has secured funding from Care Plus to undertake a short time-limited research project to examine the scope of housing and support provision delivered by Care Plus to their tenant population with an emphasis on anticipated future needs. Rachel Ibbotson in collaboration with SchARR will undertake fieldwork to carry out a total of 450 interviews with members of the general public to elicit preferences regarding processes of care. The work includes sampling, and recruitment data entry will be automatic except for a small number of paper copies. This project is funded by EuroQol. Rachel Ibbotson has also secured funding from the NIHR in collaboration with the University of Sheffield to undertake fieldwork which will involve carrying out a total of 100 interviews with members of the general public to elicit preferences regarding processes of care.

Dr Shona Kelly has secured funding from Rotherham Public Health part of Rotherham Borough Council. The aim is to conduct between 1-3 interviews at each practice covering a senior member of staff with responsibility for managing the Health Check initiative (GP, Practice Manager) and the named practice lead for the Health Check programme involved in the actual delivery of the programme.

Centre for Sport and Exercise Science (CSES)

Dr. Markos Klonizakis has secured an NIHR RfPB grant that will investigate exercise and compression therapy for venous ulcers. The Academic Health Science Network (AHSN) grant won for Yorkshire and Humberside to deliver a number of services around the development of Workplace Wellness within National Health Service staff continues to flourish. Screenings, follow-up one-to-ones and workshops are being delivered to 300 staff in Sheffield, Bradford and Airedale.

Dave Hembrough and **Prof Ian Maynard** supported two Sheffield athletes (James Machon; half-pipe skiing and Kate Summerhays; freestyle skiing) who competed at the recent Sochi Winter Olympic Games. Dave also supports Jade Etherington (Visually impaired downhill skier) one of SHU's TASS athletes, who won a silver medal on the opening day of the Sochi Paralympics. The Sport Science team have also won small grants to support local Divers and the England Table Tennis team who both compete at the forthcoming Glasgow

Commonwealth Games. Further contracts have been secured with British Climbing, Yorkshire Netball and the Sheffield Eagles over the last three months.

Centre for Sports Engineering (CSER)

Prof Steve Haake has secured a HEIF Technology Hub Demonstrator grant to transfer of Olympic technologies to City Athletics Stadium to create community impact. Prof Steve Haake has been appointed as Director of Research for the National Centre for Sport and Exercise Medicine (NCSEM) from 1st April 2014.

Dr Ben Heller, has funding from Adidas to conduct validation experiments on the team coach elite performance measurement system.

Dr Jon Wheat has secured funding from the Oxylane Group to develop a Kinect-based scanning system for body anthropometry, and from the CLAHRC to investigate the accuracy of Microsoft Kinect in body segment tracking for stroke rehabilitation.

Sport Industry Research Centre (SIRC)

SIRC have secured a contract with UK Sport to evaluate 40 major sports events during the period 2014 to 2019, it provides a platform from which to lever wider corporate benefits. These include reinforcing the University's association with major sports events following the tour de France activation; improving the student experience through volunteering opportunities; and enabling us to provide our services to the range of stakeholders involved with the event to be evaluated. Department for Culture Media and Sport have awarded SIRC contracts for the Giro d'Italia, the Tour de France and the Commonwealth Games.

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