

Sport

Our focus is on multi-disciplinary approaches to complex health and wellbeing research using a wide range of methodological approaches.

Faculty of Health and Wellbeing

Research is co-ordinated through the Health and Wellbeing Research Institute and delivered through five research centres:

- [Centre for Health and Social Care \(CHSCR\)](#)
- [Centre for Sport and Exercise Science \(CSES\)](#)
- [Centre for Sport Engineering Research \(CSER\)](#)
- [Sport Industry Research Centre \(SIRC\)](#)
- [Biomolecular Sciences Research Centre \(BMRC\)](#)

Our focus is on multi-disciplinary approaches to complex health and wellbeing research using a wide range of methodological approaches.

How to apply

Applicants are requested to email a [postgraduate application form](#) to rea.smith@shu.ac.uk by 12 noon on Friday 29 January 2016.

Where English is not your first language, you must show evidence of English language ability to the following minimum level of proficiency: an overall IELTS score of 7.0 or above, with at least 6.5 in each component or an [accepted equivalent](#). Please note that your test score must be current, i.e. within the last two years.

For full details on the eligibility criteria, see: www.shu.ac.uk/studentships/eligibility

Selection process

Interviews will take place in the week commencing 22 February 2016.

Applicants are required to give a short 10–15 minute presentation followed by an interview. Interview panel members will include the postgraduate research tutor and a prospective director of studies. Where travel to Sheffield is not possible, interviews may be conducted by Skype or conference call.

Research topics

Each project is loosely connected to a particular research centre. However the majority are supervised by staff drawn from research teams across the faculty, and in some cases, the University.

Project S1: The determinants of success in Olympic and other multi-sport events

This PhD represents an exciting opportunity for an ambitious student to become involved in our world leading research into performance in elite sport. Some preliminary research undertaken by the supervisory team indicates that we can improve the power of statistical models that help to explain nations' success in sports competitions such as the Olympic Games. We are looking for a candidate with an interest in elite sport policy with good statistical skills to help us develop the next generation of this research. Elite sport performance is always topical in the news, at conferences and in peer reviewed journals. We will support you to make a positive difference in all of these areas and to build your own high profile academic career.

For enquires contact: s.shibli@shu.ac.uk

Project S2: Mitigating brain trauma by optimising the effectiveness of rugby headgear

Brain trauma is the world-leading cause of death/disability in young people. Sports-related concussion is preventable and a media spotlight has raised public concern about rugby/football-related brain damage. The efficacy of current rugby headgear is in question and there are calls for innovative design solutions to also tackle low usage rates. This study aims to use the expertise of CSER in sports equipment performance and injury prevention in collaboration with that of CHSCR in understanding mechanisms of secondary brain injury to meet the protective needs of World Rugby. In order to test the efficacy of headgear a rig will be developed which replicates infield conditions. This will be used to generate protective performance parameters of rugby headgear. The outcome will be an understanding of how we may reduce the impact upon cerebral tissue resulting from a blow to the head and in so doing, mitigate neuronal damage. This information will inform World Rugby's understanding of headgear requirements.

For enquires contact: n.hamilton@shu.ac.uk

Project S3: Developing the next generation of human 3D-imaging systems

Through a research programme lasting over 4 years, we have developed an accurate (3 mm), flexible and low-cost (£1,500) 3D imaging system which we have demonstrated is an effective tool for measurement of human body size and shape in health and sport.

This PhD will investigate methods for 3D shape analysis and anthropometry i.e. how 3D 'shape' in human body measurement can be used to inform, predict and diagnose, the student will:

- Use and develop techniques from the cutting-edge of 3D point analysis.
- Assess the effectiveness of '3D shape analysis' on mannequins and suitable calibration objects.
- Choose, and implement, a suitable case-study for long-term testing of these advanced techniques.

Applicants should have an engineering, computing or science background and be comfortable with computer programming, experimental design and participant recruitment.

For enquires contact: s.choppin@shu.ac.uk

Project S4: Addressing inequality and integration of exercise advice into NHS breast cancer care pathways.

At present it is unknown how to effectively deliver exercise related advice within the NHS breast cancer care pathway. Current provision of advice to patients is ad-hoc and non-systematic in the quality or quantity of information provided to patients. Expectations to deliver improved patient care in an already under pressure service is challenging. Research is needed to explore how exercise advice can be delivered in a sustainable, meaningful way in clinical practice. This will require mapping current exercise advice delivery in NHS settings, identifying opportunities for exercise advice interventions in the current clinical pathway, provision of training to up-skill health professionals to engage patients in meaningful discussions and identification of referral mechanisms to non-NHS organisations who can offer further support. This research will address the inequality that currently exists around information provision. The research aims to improve NHS services, resulting in better patient care, more informed patients, more empowerment to self-manage. This research may elicit transferable learning to long-term condition management pathways.

For enquires contact: H.Crank@shu.ac.uk

Project S5: The Effects of Physical Activity on Appetite and Food Intake in Older Adults.

Summary: There is evidence that older adults experience age-related declines in appetite and food intake that promote poor nutritional status and negative health outcomes. However, these age-related changes in

eating behaviour, and the underlying mechanisms, are poorly understood. Furthermore, while regular physical activity has been shown to improve the physiological regulation of appetite in young adults, it has yet to be established whether physical activity can ameliorate the age-related changes in appetite seen in older adults. Therefore, this project will examine the interaction between physical activity, appetite and food intake in older adults.

Applicants should have a background in exercise science, physiology or nutrition, while knowledge of appetite research or experience of working with older adults would be advantageous.

For enquires contact: M.Hopkins@shu.ac.uk

Contact us

Rea Smith
Postgraduate research administrator health and sport
Health and Wellbeing Research Institute
Sheffield Hallam University

Email rea.smith@shu.ac.uk
Phone 0114 225 2347