

Job Title: Research Associate in Wearable Technology

Grade: 7

Salary: £39,906 to £46,049 per annum, pro-rata if part-time

Department: Global, Lifestyle and Metabolic Health

Hours/Contract: Full-time, or job share considered, fixed term contract until 30 November 2027

Job Family: Teaching and Research

Reference: 12778

Role Purpose

We are looking for a talented, motivated individual with expertise in using wearable technology to measure 24-hour lifestyle behaviours to join the team at the Diabetes Research Centre (University of Leicester) and NIHR Leicester Biomedical Research Centre (BRC).

Sitting as part of the NIHR Leicester Biomedical Research Centre (BRC) Lifestyle Theme, the post holder will work across our portfolio of trials, taking a lead in overseeing those involving device-measured 24-hour lifestyle behaviours (e.g. sleep, sedentary behaviour, physical activity and exercise). They will play a lead role in advancing device-based measures of physical behaviours, performing data processing, statistical analysis, and drafting outputs for dissemination (e.g., research articles, conferences abstracts, and outputs for other audiences). They will also contribute to new research ideas, protocol design and funding applications for future research. The post-holder will also be responsible for coordination of the set-up and data collection of device-measured 24-hour behaviours within research trials (locally and at external sites where appropriate).

This will include working closely with senior researchers and other team members to play a lead role in all aspects of the research process, supervising junior members of the team where appropriate, to further the aims of the NIHR Leicester BRC and the Diabetes Research Centre.

The post-holder will have background expertise relevant to the topic area (e.g. sport/exercise sciences, health sciences), along with relevant experience and skillset, and the ability and willingness to learn and synthesise evidence from various subject areas. Opportunities for professional development will be encouraged, including gaining experience in teaching, grant writing, and broader academic engagement.

Main Duties and Responsibilities

Research

- Lead and/or independently support the co-ordination and delivery of device-measured assessment of 24-hour lifestyle behaviours across the group's research portfolio. This will include overseeing the following aspects either through delivering personally or by supervising other members of the team:
 - provision of expertise on the design of studies incorporating device-based measures
 - preparation of training materials
 - supporting provision of training to study sites (locally and to external sites)
 - preparing devices and sending to external sites and/or study participants directly
 - providing ongoing support and troubleshooting to external sites and local research teams
 - checking and processing data on return





- cleaning and summarising accelerometer and other data using software packages such as R
 - preparing data outcome files and accompanying data dictionaries
 - monitoring and managing the large stock of wearable devices, including oversight of processes to allocate to individual studies and/or loan to external research groups
- Provide substantial contribution to diverse research outputs advancing device-based measures of physical behaviours, by leading and/or independently supporting both data analysis and the preparation of journal article manuscripts, conference abstracts and presentations; including those as lead author/presenter.
- Lead and/or independently support the preparation and submission of study proposals and grant funding applications.
- Contribute to the overall research programme using innovative research models, novel approaches and techniques.
- In agreement with the line manager, liaise with project funders and collaborators to progress the research.
- Assist and provide advice/support to other staff and students within own area of expertise. This may include helping in the supervision of students and other junior members of the team.
- Support the wider group in research tasks related to the conduct of a range of research projects.
- Design and develop the work-plan required to meet deadlines related to the principal responsibilities above, including planning and prioritising personal work load several months ahead and coordinating with other teams and individuals, whilst also adapting to accommodate new developments or research directions.

Professional Development

- Maintain a broad knowledge of up-to-date research and scholarship in relevant fields.
- Undertake appropriate training and personal development activities to develop research skills relevant to the studies being undertaken by the group; this may include attendance of internal and external training courses if the opportunity arises.
- Engage in continuous professional development, for example through participation in relevant staff development programmes.

Impact and Knowledge Exchange

- Represent the research group at external meetings, including national and international conferences (if the opportunity arises). This may include delivering poster, oral or other presentations.
- Contribute to building and maintaining internal and external collaborations, including with industry, academic and other partners.
- Participate in workshops and conferences to support the dissemination of research findings.
- Undertake, subject to agreement of the lead researchers, external commitments which reflect well upon and enhance the reputation of the Diabetes Research Centre and the University of Leicester.



- Contribute to industry collaborations.
- Engage positively and pro-actively in research impact.

Leadership and Citizenship

- Carry out administrative duties related to the trial and the overall research programme of the group, as required by the lead researchers and/or study teams.
- Contribute to the overall department by attending meetings and seminars as appropriate.
- Undertake other departmental roles as may be reasonably required by the lead researchers.
- Contribute to the overall success of the research programme.
- Pro-actively build networks and collaborations.
- Providing mentoring and coaching to Early Career Researchers and research students.

Teaching

- Whilst primarily a research role, the post holder may on occasion be asked to assist with the development and/or delivery of lectures, seminars, tutorials and other classes or public presentations within their areas of expertise, in support of teaching or other education activities delivered by the Diabetes Research Centre (e.g., UoL Diabetes MSc, healthcare professional training, public education sessions etc.), as reasonably required by lead researchers or education leads.

Other

- To work within the agreed protocols, procedures and policies as defined by the research team, the University of Leicester, ICH-GCP, and research governance and ethics approvals.
- Ensure compliance with health and safety requirements in all aspects of work.

Internal and External Relationships

The post holder will be situated at the Leicester Diabetes Centre, located at Leicester General Hospital. They will sit within the Lifestyle Theme of the NIHR Leicester BRC (as part of the wider Leicester Lifestyle and Health Research Group), working directly with senior academics such as Professor Charlotte Edwardson and Dr Alex Rowlands.

Within the role, the appointee will be expected to liaise and work closely with teams within the Leicester Diabetes Centre, collaborators within the Project, and other themes across the NIHR Leicester BRC. This will include working with groups across the University of Leicester, University Hospitals of Leicester NHS Trust, and with other local, national and international collaborative organisations as appropriate. Furthermore, the NIHR Leicester BRC is a collaboration with Loughborough University and the post holder will work within this collaboration, supporting studies which will involve coordinating expertise between universities.

The Diabetes Research Centre and the NIHR Leicester BRC have internationally-recognised expertise and reputation in using wearable technology to measure 24 hour lifestyle behaviour and taking novel approaches to best analyse the data collected, built on established research facilities, equipment and expert staff. They also host bespoke clinical research facilities with capacity for detailed clinical, anthropometric, physiological and cardiometabolic testing, as well as a state-of-the art exercise testing and training laboratory, in-person and remote clinical consultation areas, and analytical biochemistry laboratories. The post holder will work closely with the clinical staff, research scientists, laboratory



technicians and other key support staff to support studies utilising these facilities. The post holder will also have contact with participants (including NHS patients) on studies conducted within them.

Planning and Organising

- With guidance from the Principal Investigator, or equivalent, plan own work and prioritise research and project activities on a regular basis, including organising resources and co-ordinating with other individuals and teams within the Diabetes Research Centre, as well as external industry partners, to design and implement collective workplans to meet project timelines and other deadlines.
- The post-holder will be required to effectively manage their time to deliver on the priorities of the research programme with the support of their line manager.
- Attend suitable training courses or equivalent and be proactive in terms of continued professional development.

Qualifications, Knowledge and Experience

Essential

- PhD or equivalent expertise in a relevant discipline (for example, but not limited to, health sciences, sport and exercise sciences, human biology, diet/nutrition, lifestyle sciences, sports nutrition/physiology) *
- Substantial experience of collecting and/or processing accelerometer data and/or data from other wearable technology for measuring 24-hour lifestyle behaviours*
- Substantial experience of managing a large stock of accelerometer devices (including charging, cleaning, managing availability across different projects)
- Good knowledge and experience of R statistical package to process accelerometer data*
- Experience in conducting experimental clinical research in the area of exercise physiology, sport and exercise sciences or health sciences*
- Evidence of involvement in high-quality research publications*
- Experience in design and analysis of studies using quantitative data*
- Experience of statistical analysis in packages such as STATA, SPSS, R*
- Proficient in Microsoft Office or equivalent software, including word processing, spreadsheets, and presentations*
- Experience of collaboration or team working
- An understanding of data protection and confidentiality issues

Desirable

- Experience in conducting clinical/applied research in the area of type 2 diabetes, obesity or other long-term cardiometabolic conditions.
- Experience in high-performance computing environments and generating scripts in languages such as R and/or Python
- Experience of involvement in large, externally-funded, multidisciplinary programmes of research.
- Experience in preparing/submitting regulatory approvals required to conduct clinical research within the NHS.
- Experience in preparing/submitting successful grant funding applications.





- Experience of working with clinical populations in a clinical setting.

Skills, Abilities and Competencies

Essential

- Ability to manage and coordinate research projects*
- Ability to work at a high level of accuracy and at high analytical sensitivity*
- Ability to interpret analytical data*
- Excellent interpersonal skills and ability to work as part of a team*
- Excellent written* and oral communication skills
- Excellent IT skills
- Excellent organisational skills
- Ability to prioritise workload in order to meet deadlines*
- Highly motivated*
- Willingness to undertake necessary training and personal development*
- Willingness to undertake necessary travel*

Desirable

- Well-developed understanding of Health and Safety regulations and procedures, particularly around clinical research.
- Demonstrable success in producing research outputs of the very highest standard.
- Proven capability in analytical, technical and/or scientific problem-solving.
- Budget management skills.
- Willingness to foster new collaborations.

****Criteria to be used in shortlisting candidates for interview***

Reason for Fixed Term Contract

The reason for the fixed term contract is stated in section 1.9 in the summary of contractual terms in your contract of employment.

Criminal Declaration and Disclosure and Barring Service (DBS).

If you become an employee, you must inform your manager immediately, in writing, if you are the subject of any current or future police investigations/legal proceedings, which could result in a criminal offence, conviction, caution, bind-over or charges, or warnings.

This post is exempt from the Rehabilitation of Offenders Act 1974 because the appointee will have substantial access to young people and/or vulnerable adults. Therefore, an appointment to this post will be subject to checking through the Disclosure and Barring Service (DBS). The successful applicant for this post will, therefore, be required to give consent for the University to check and obtain appropriate clearance with the DBS for the existence and content of any criminal record in the form of an Enhanced Child and Adult Workforce Disclosure.

Information received from the DBS and the police will be kept in strict confidence and will be destroyed once the University is satisfied in this regard.





NHS Research Governance

Where it is determined that the duties of this post for the purposes of research involve work with the NHS, it is necessary to ensure that the performance of the duties attached to the post are covered by NHS research governance arrangements and the appointee must comply with all such arrangements, which may include occupational health clearance and DBS clearance.

Supporting University Activities

As a University of Leicester citizen, you are encouraged to support key university activities such as clearing, graduation ceremonies, student registration and recruitment open days. We encourage all staff as citizens to work flexibly across the University if required. If supporting these activities is likely to affect your workload, please speak to your line manager in the first instance

University Values

Inclusive - We are diverse in our makeup and united in ambition. Our diversity is our strength and makes our community stronger.

Inspiring - We are passionate about inspiring individuals to succeed and realise their ambitions. We challenge our community to think differently, to get involved, and to constantly embrace new ideas.

Impactful - As Citizens of Change we will generate new ideas which deliver impact and empower our community

Freedom of Speech

The University is committed to upholding freedom of speech and academic freedom within the law throughout our recruitment processes. We ensure that all candidates are considered based on merit and suitability for the role, without regard to their lawful viewpoints or the expression of challenging or controversial ideas. Our recruitment policies and practices are designed to protect applicants from discrimination or adverse treatment on the basis of their opinions, and to foster an environment where open debate and diverse perspectives are valued as essential to our academic mission.

Equity and Diversity

We believe that equity, diversity and inclusion is integral to a successful modern workplace. By developing and implementing policies and systems that challenge stereotypes across all aspects of our work, we have a culture that recognises and values the diverse contributions of our staff which benefits everyone. Our strong values of inclusivity and equality support our efforts to attract a diverse range of high quality staff and students, and identify our University as a progressive and innovative workplace that mainstreams equality, diversity and inclusion.

