

Health Data Research UK

Applicant information

Job description and person specification

Post:	BHF Data Science Centre – Associate Director: Stroke Data Science Catalyst
Location:	Primary base could be anywhere in the UK, but must be willing and able to travel to London and elsewhere (mainly UK) in connection with the role
Salary:	This post would be suitable as a secondment
Duration:	Approx. 1 day/week for 3 years (with the possibility of extension for a further two years). A lesser or greater time commitment may be considered for the right candidate
Reporting to:	Director, BHF Data Science Centre (Professor Cathie Sudlow)

About Health Data Research UK

Health Data Research UK (HDR UK) is the UK's national institute for health data science. Our mission is to unite the UK's health data to enable discoveries that improve people's lives. It is funded by UK Research and Innovation, the Department of Health and Social Care in England and equivalents in Northern Ireland, Wales and Scotland, and leading medical research charities.

HDR UK's strategy focuses on three core areas:

1. **Research Data Infrastructure and Services** - providing the UK-wide and global co-ordination and leadership of health data infrastructure and services required to make health-relevant data FAIR (Findable, Accessible, Interoperable and Reusable). This builds on the convening, collaborative and co-ordinating role of the [UK Health Data Research Alliance](#) and includes the [Health Data Research Innovation Gateway](#) and the [Health Data Research Hubs](#)
2. **Research Driver Programmes** - advancing research discoveries through high impact UK-wide programmes that address major health and societal challenges, guide the development of the infrastructure and services for the benefit of other researchers and are outward-looking with global reach.
3. **One Institute Partnerships** - through national leadership with a clear vision and ambition to assemble a health data research ecosystem with enduring benefits for all researchers. As an innovative distributed UK-wide and increasingly global Institute, we act as a flagship for team science, drawing on skills, resources, and expertise from academic, NHS, industry and government partners.

About the BHF Data Science Centre

The [British Heart Foundation \(BHF\) Data Science Centre](#), which launched in January 2020 and is embedded within HDR UK, is building on a £10m initial investment from the BHF to deliver the data and data science needed to address some of the most pressing challenges in heart and circulatory health research.

The Centre works in partnership with patients, the public, NHS, researchers and clinicians to promote the safe, ethical and scientifically robust use of data for research into the causes, prevention and treatment of all diseases of the heart and circulation and closely related conditions (including, for example, heart attacks, heart failure, heart rhythm disorders, stroke, peripheral vascular disease, vascular dementia and diabetes).

Extensive and ongoing engagement with key stakeholders has shaped the development of the centre's six thematic areas and diabetes data science catalyst across which cardiovascular research is supported:

- Better access to and use of population-wide **structured health data** for cardiovascular research
- Better access to and use of **unstructured health data** (including imaging data) at scale for cardiovascular research
- Enabling large-scale use of **personal monitoring data** in a wide range of cardiovascular research
- Developing and refining **computable cardiovascular phenotypes** for different applications
- Supporting discoveries of cardiovascular disease causes, prediction, early detection, prognostic tools and treatments using **disease-based cohorts**
- Developing methods and infrastructure for large, efficient, **data-enabled cardiovascular trials**

The BHF Data Science Centre does not hold data itself. Instead, it works with relevant data custodians, including through the UK Health Data Research Alliance and Health Data Research Innovation Gateway, to provide knowledge and expertise to help researchers from the NHS, academia and industry find, access, understand, connect and analyse the UK's unique cardiovascular 'big data' that is distributed across national registries, NHS electronic medical records and other relevant datasets.

Key achievements of the Centre include: its work with NHS Digital to co-develop England's first national trusted research environment (TRE), enabling access to hundreds of researchers across the UK to multiple sources of linked health data on >55 million people for research impacting health care and policy; and its partnership with Diabetes UK to establish a Diabetes Data Science Catalyst. The Centre's core team of around 25 staff currently comprises the Director, Deputy Director and seven highly interdisciplinary Associate Directors, who lead the thematic and catalyst activities; an operations team, providing administrative, scientific project management, communications and patient and public involvement support; and a growing team of health data scientists, providing expertise and services in reproducible data management, curation and analysis pipelines.

Stroke Data Science Catalyst

The Stroke Data Science Catalyst is a new initiative which forms part of the BHF Data Science Centre through a partnership between the BHF, [Stroke Association](#) and the BHF Data Science Centre (led by HDR UK) and is based on the successful model of the Diabetes Data Science Catalyst. The Stroke Association is providing £495,000 of funding to support the Stroke Data Science Catalyst over five years in addition to the BHF's existing investment for the BHF Data Science Centre. The main purpose of the *Stroke Data Science Catalyst* will be to facilitate data-driven research using linked multi-modal patient data at national (UK-wide) scale, addressing major stroke research questions of relevance and of mutual interest to both the BHF and the Stroke Association. Being embedded in the Centre will facilitate collaborative working across the Centre's thematic and catalytic areas, enabling stroke data science research to be conducted at greater pace and generate outputs of value for research, health policy, clinical practice and patient care.

Purpose of the post

We are looking for a leader (established or well advanced on a career pathway to a leadership position) who is well connected and highly respected across the stroke and cardiovascular clinical and research communities in the UK and internationally. They will have an excellent track record in the use of large scale, multimodal data types in stroke research, and a strong commitment to developing linked health data-enabled approaches to enhance understanding of the causes and progression of stroke to improve strategies for treatment.

The Associate Director for the *Stroke Data Science Catalyst* will be a key member of the BHF Data Science Centre leadership team, working closely with the Director, Deputy Director and Associate Directors leading the Centre's thematic and catalytic areas, and centre staff to identify and prioritise key areas of work in stroke data science research, demonstrating impact at national and international level in clinical practice, the health system and for people affected by stroke.

Supported by the BHF Data Science Centre team, the Stroke Association and the BHF, the postholder will work stakeholders, including people affected by stroke, across the UK to:

- identify research priorities for large-scale, data-enabled stroke research;
- forge relevant collaborations to progress stroke research priorities;
- in alignment with BHF Data Science Centre and HDR UK-led activities, identify and address the infrastructure and analytics challenges that need to be overcome to enable linkage across health data and their analyses at UK-wide scale, to improve people's cardiovascular health and care.

This part-time role will provide leadership and strategic planning for stroke research, to meet the wider objectives of the BHF Data Science Centre in improving cardiovascular health through the use of large-scale data and innovative analytical methods, working strategically with the BHF and Stroke Association.

Main responsibilities

- **Provide leadership** to bring together research, clinical, epidemiological, data science and multi-omics, networks, professional societies, NHS organisations, patients, public, industry and wider stakeholders

within the health data science community to shape, influence and build consensus on the use of multi-modal health data and their integration with other health data for stroke research. An ability to see the bigger picture and focus on key priorities is crucial in order to ensure benefit to the wider stroke and data science communities

- Create and maintain new **partnerships**, building on existing networks across the data science, stroke and cardiovascular communities, NHS organisations, industry, patients and public, regulatory and information governance partners to identify and prioritise the key challenges of using, linking and analysing multi-modal health data at national scale. The postholder will also build on existing partnerships and collaboration opportunities established by the Centre's other Associate Directors and with relevant HDR UK initiatives and national priorities
- Work with the stroke, cardiovascular and health data science communities, patients and public, NHS organisations, industry, Stroke Association, BHF. and the BHF Data Science Centre Director and team to identify suitable and build on existing identified **exemplar driver projects** that will highlight and address key requirements via the Stroke Data Science Catalyst. In collaboration with the wider health data science and stroke communities, provide strategic leadership in the development of novel and/or reproducible methodological and analytical approaches
- Provide strategic direction and champion a **team science** approach to deliver projects, providing negotiation and brokering skills where necessary to drive improvement in the use, linkage and analysis of multi-modal health data for stroke research
- Work with the BHF Data Science Centre Director and team, Stroke Association and BHF to lead the development of:
 - **strategic plans** for the *Stroke Data Science Catalyst*;
 - **project and delivery plans and subsequent reporting** for this thematic area
- Contribute to and lead on relevant funding applications and other initiatives to **leverage additional resources** to enhance the research-enabling activities of the *Stroke Data Science Catalyst*
- Working with the BHF Data Science Centre team, wider HDR UK colleagues, Stroke Association, BHF and patient/public groups to identify opportunities and provide content to **communicate to diverse audiences** on the impact of the activities of the *Stroke Data Science Catalyst*

Day-to-day project management and administrative support will be provided by the Centre team.

Planning and organising

The postholder will lead on the development of a strategy and delivery plan to meet the objectives of the BHF Data Science Centre in the use, linkage and analysis of health data in stroke research. This will require working with the BHF Data Science Centre team in planning and organising project plans for this area as well as providing oversight across a number of complex projects to ensure delivery of objectives within deadlines.

Problem solving

This role involves significant application of prior knowledge accumulated from professional and research experience. An enhanced level of initiative and problem-solving ability is needed to develop new ideas and novel approaches in response to issues and research problems, as well as tenacity to resolve infrastructure,

organisational or governance bottlenecks. This approach will involve sharing knowledge and development with leading experts in the field, requiring collaboration, excellent negotiating skills and creative thinking. Considerable strategic awareness will need to be used.

The postholder will operate with significant independence and will make effective judgements on when to escalate issues to the Director, Deputy Director or other senior HDR UK colleagues.

Decision making

Responsibility for developing and delivering on the strategy for the *Stroke Data Science Catalyst*, in collaboration with the Director, Stroke Association, and the BHF.

Initiate, develop and build on opportunities for collaborative working with the broader members of the stroke, cardiovascular and health data science communities, NHS organisations, patients and public, industry, wider HDR UK community, relevant national and international partners and organisations.

Continuous improvement

HDR UK is dedicated to continuous improvement through our quality management system and has achieved ISO 9001 accreditation. The post-holder will review, analyse, identify and implement opportunities for quality improvement within their role and as part of the wider team through our strategy development and internal audit processes.

Key contacts/relationships

The post holder will be a key member of the BHF Data Science Centre leadership team working closely with the BHF Data Science Centre Director, Deputy Director, Associate Directors and the Centre team. They will build and maintain effective working relationships with colleagues within and across HDR UK, partners in the Stroke Association, BHF, NHS organisations, the wider cardiovascular, stroke and health data science communities, partners in substantive HDR UK Hubs and sites, and other key stakeholders.

A key relationship will be with patients and the public to build trust and acceptability in the use of health data at scale for stroke research.

Eligibility

Candidates must:

- hold a substantive post at a UK organisation
- have a contract of employment at their organisation that extends up to 2024 or beyond,
- have the written support of their organisation (an institutional supporting letter will be required at the application stage)

Knowledge, skills and experience

Experience

- Extensive experience in stroke research as well as an interest and understanding of relevant aspects in health data science, in particular, the linkage and analysis of population-wide health data in research, and the use of health data linkages to enhance large cohorts and/or clinical trials
- Proven leadership skills to provide direction and deliver change across the UK

- Ability to lead and inspire trust in a wide range of stakeholders and to build consensus across multiple stakeholders
- Advanced understanding of the complexities, challenges and limitations of using routinely collected structured data from different health settings (e.g., secondary care, primary care, dispensed medications, specialist registry data etc.) as well as from different devolved nations of the UK in health research
- Experience of linking routinely collected health data with other health relevant data (e.g. omics, wearables, imaging) with appreciation and knowledge of the uses, challenges and potential limitations of such linkages in large-scale research studies
- Knowledge of innovative methodological and analytic approaches (e.g., AI and/or machine learning) and their application to analysis across routinely collected and other health data sources in health research
- Well connected with stroke and health data science research networks, NHS organisations, professional societies, industry and wider stakeholders of relevance to the ambitions of the *Stroke Data Science Catalyst*
- Experience of working with patients, the public, and patient and public involvement networks/organisations in planning, delivering and communicating research
- Commitment and ability to bring together people and infrastructure to drive forward improvements and change systems through collaborative team working and exemplar projects

Skills

- Personal drive and ambition to provide leadership in the area of health data science in stroke research
- Excellent influencing and negotiating skills
- Creative and innovative thinker
- A commitment and enthusiasm to engaging with patients, the public, and patient and public involvement networks/organisations in the stroke data science catalyst is essential.
- Excellent communication skills with the ability to listen to and bring on board a wide range of stakeholders with competing priorities and views
- Excellent networking skills with a desire to work collaboratively to achieve goals
- Excellent organisational and time management skills, with the ability to manage competing priorities and issues under time pressures
- Ability to work flexibly with a team of highly skilled individuals

Dimensions

- This role is a secondment for approx. one day/week to provide leadership and strategic direction for the Stroke Data Science Catalyst
- The post holder will work with the BHF Data Science Centre Director, Deputy Director, Associate Directors and the team to meet the objective of improving stroke treatment and care through research using large-scale data and advanced analytics
- There will be project management and administrative support from the BHF Data Science Centre to the post-holder in their role, provided through funding support from the Stroke Association
- The post-holder will be expected to work flexibly to fit the requirements of the role

- HDR UK is a national institute, and our activities take place across the UK. Therefore, the post-holder should be willing to undertake travel within the UK and occasionally internationally when required.

Application Process

Interested applicants are encouraged to contact the BHF Data Science Centre Director to discuss further: bhfdsc@hdruk.ac.uk

Prior to application, candidates should discuss with their line manager / other relevant senior colleagues how this this part-time secondment position would fit with their existing post.

How to apply:

Please apply via recruitment@hdruk.ac.uk with the following:

- Your CV (listing no more than **20** of your most relevant publications or other research outputs and no more than **10** of your most relevant funding awards)
- A covering letter of no more than 500 words explaining what you can bring to this role.
- A letter from your institution supporting your secondment to perform this role if appointed.

Please contact recruitment@hdruk.ac.uk if you have any queries regarding your application.

The closing date for this vacancy is Sunday 4th June 2023.

Interviews will take place on Friday 16th June 2023. Interviews will take place via zoom.

Equal Opportunities Policy Statement

Health Data Research UK is an equal opportunities employer, and as such aims to treat all employees, consultants and applicants fairly. It is our policy to provide employment equality to all, irrespective of:

- Gender, including gender reassignment
- Marital or civil partnership status
- Having or not having dependants
- Religion or belief
- Race (including colour, nationality, ethnic or national origins)
- Disability
- Sexual orientation
- Age

We are opposed to all forms of unlawful and unfair discrimination. All job applicants and employees who work for us will be treated fairly and will not be unfairly discriminated against on any of the above grounds. Decisions about recruitment and selection, promotion, training or any other benefit will be made objectively and without unlawful discrimination.