

British Heart Foundation - UK Dementia Research Institute

Centre for Vascular Dementia Research

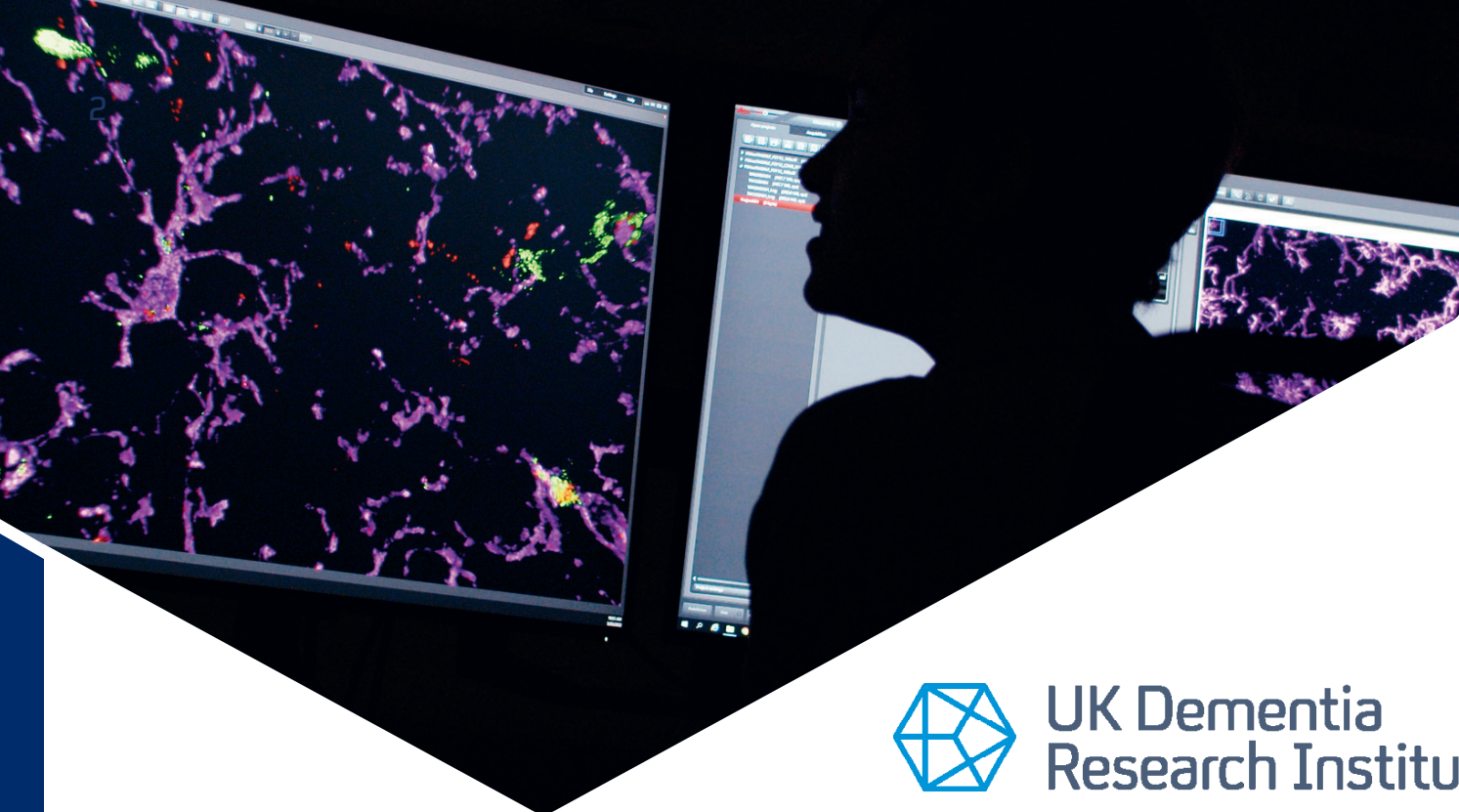
# Appointment of Centre Director



Principal funder:



Medical  
Research  
Council



## UK Dementia Research Institute

Dementia represents one of the most pressing medical and economic challenges facing society today, affecting 45 million people worldwide, with this number projected to triple by 2050. One in four hospital beds in the UK is currently occupied by someone with dementia.

Established in 2017, the UK Dementia Research Institute (UK DRI) is the UK's largest programme dedicated to understanding the causes of dementia and translating that understanding into ways of preventing and treating it.

The UK DRI is a world class institute that brings together the expertise of 60+ Group Leaders and 800+ staff who work in cutting edge research facilities based at UCL, University of Edinburgh, University of Cambridge, Imperial College London, King's College London and Cardiff University.

We do original, ground-breaking research that will transform lives. We attract the brightest minds and provide them with the best technology, research tools and technical support. Our work is highly collaborative—we work with people affected by dementia, the wider academic research community, the NHS and industry to translate our findings into treatments. We are renowned for the quality of our discovery science, our translational agenda, a willingness to share data, ideas and resources, and our unwavering commitment to patients and those at risk of developing dementia.

The nationwide reach of the UK DRI promotes and grows partnerships not only within our host universities but also the wider UK research landscape. We are the nexus for an engaged and collaborative UK community of people working to end dementia. Our researchers are connected, regardless of where their labs are based. Ideas, tools, technologies and data flow between UK DRI teams.

Each of our Centres is overseen by a tenured, professorial-level Centre Director. Our Centre Directors are also part of the UK DRI's national leadership team, supporting the Institute Director's vision.

Read more about the UK DRI:

[www.ukdri.ac.uk](http://www.ukdri.ac.uk)

## We operate as a single institution



For more than 60 years, British Heart Foundation (BHF) has been at the forefront of cutting-edge cardiovascular research that has saved countless lives. When BHF was founded, heart and circulatory diseases caused over half of all deaths in the UK. Sudden death from a heart attack at the age of only 50 or 60 was so common that it was thought to be a simple fact of life. Seven out of ten would die.

With the unwavering support of the public, BHF-funded researchers pioneered a revolution in the understanding and treatment of conditions like coronary heart disease. Today, thanks in part to our research, seven out of ten people survive a heart attack. Despite this progress, our work is needed more than ever to support the 7.6 million people across the UK living with heart and circulatory diseases, including vascular dementia.

Guided by our Strategy to 2030, our vision is a world free from the fear of heart and circulatory disease. We know that the best way to achieve this is to continue to fund groundbreaking cardiovascular research. With over £410 million of research underway and an aspiration to invest over £1 billion in research over the next ten years, we are making strong progress in support of our vision.

As the largest non-commercial funder of cardiovascular research in the UK, supported entirely by generous charitable donations, we:

- Fund research into all heart and circulatory diseases, and their risk factors
- Fund research across the full spectrum, from discovery science to innovation in practice
- Attract, nurture, and support the brightest minds and the best ideas

- Make strategic investments to address unmet needs and seize new opportunities
- Actively develop new national and international partnerships to maximise our impact

Our new partnership with UK DRI, launching the UK's first dedicated Centre for Vascular Dementia Research, will accelerate our ambition to find new ways to prevent and treat vascular dementia. Integrating over six decades of BHF's rich experience in cardiovascular research within the UK's flagship investment in dementia research, together we will give hope to the individuals and families that have been devastated by vascular dementia.

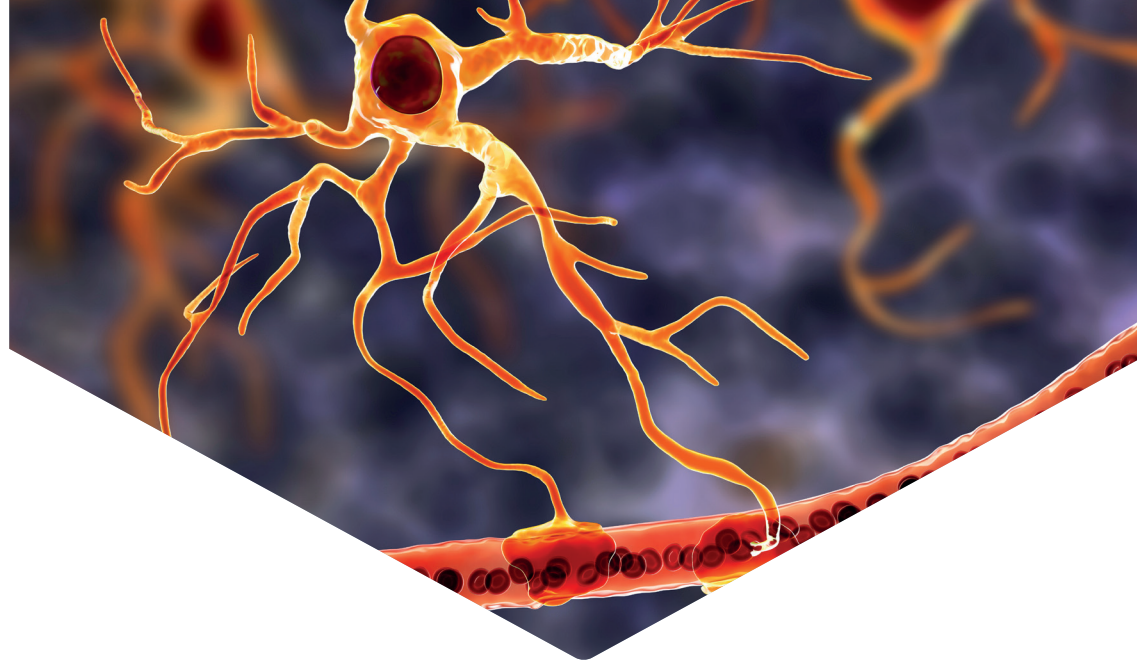
Read more about the BHF:

[www.bhf.org.uk](http://www.bhf.org.uk)

"We're proud to be joining forces with UK DRI to launch the BHF-UK DRI Centre for Vascular Dementia Research, bringing together the brightest minds to drive forward pioneering research into this devastating condition. By combining our expertise and resources, the Centre will provide an international platform for world-leading collaborations that will accelerate the global search for a cure."

**Dr Charmaine Griffiths**  
BHF Chief Executive Officer





# A new partnership to tackle vascular dementia

It has been estimated that 30% of dementia cases worldwide could be attributable to risk factors such as diabetes, midlife hypertension, hypercholesterolemia and obesity among others. Specifically, midlife hypertension is one of the major contributors to vascular dementia. There is also growing recognition that Alzheimer's disease and vascular dementia present in many cases as 'mixed dementias'—they share the same risk factors and both neuropathology and vascular dysfunctions can be observed in both types of dementia. Crucially, it appears that vascular dysfunction can occur early in the course of cognitive decline, potentially before neurodegenerative changes, highlighting brain's vasculature as an attractive and accessible target for intervention.

Recognising these opportunities, UK DRI invested early in areas such as cerebral small vessel disease, as well as vascular contributions to other types of dementia such as Alzheimer's disease. This commitment included welcoming established world leaders in the field to the UK DRI and the targeted recruitment of rising stars to grow the UK's vascular dementia research community, providing significant core awards, project grants and relevant tools and technology to support their work, establishing an Institute-wide "Vascular Theme" bringing together clinical and preclinical expertise from across the UK DRI and beyond, and hosting seminars and workshops to explore new directions and partnerships. Ongoing areas of UK DRI research include vascular contributors to neurodegeneration and dementia, understanding the mechanisms

behind vascular and blood-brain barrier dysfunction during ageing and disease (with a strong focus on endothelial cells), and a greater understanding of the role of glial cells in vascular dysfunction. Moreover, UK DRI researchers run clinical studies into the causes and risk factors that progress vascular dementia, as well as preventative clinical trials.

Despite our ongoing work in this area, we recognise that there are many other areas of investigation that we should be studying if we are going to understand how the brain vasculature is involved in brain function and dysfunction and translate that knowledge into treatment and prevention. Within this framework, the British Heart Foundation and UK DRI have entered into an exciting new partnership to significantly expand our work in this area.



*"This new collaboration represents a major step forward in our efforts to address the knowledge gap in vascular dementia. With the BHF's wealth of experience in vascular research and the UK DRI's expertise in dementia, I am confident that discoveries made at the new Centre will dramatically improve clinical care and quality of life for the millions of people around the world affected by the condition."*

**Prof Siddharthan Chandran**  
UK DRI Director

# Centre for Vascular Dementia Research

In partnership with the British Heart Foundation, UK DRI will establish a new research centre: the “BHF – UK DRI Centre for Vascular Dementia Research” (CVDR). The CVDR will provide a critical mass, visibility and long-term commitment to this important area of research.

At the heart of the new Centre will be five new UK DRI Group Leaders (principal investigators) to be recruited via an international search, whose salary and research programmes will be supported by this new partnership. Existing UK DRI Group Leaders whose research is primarily focused on vascular contributions to dementia will also be affiliated with the new Centre (page 6), contributing to a critical mass of collaborating researchers.

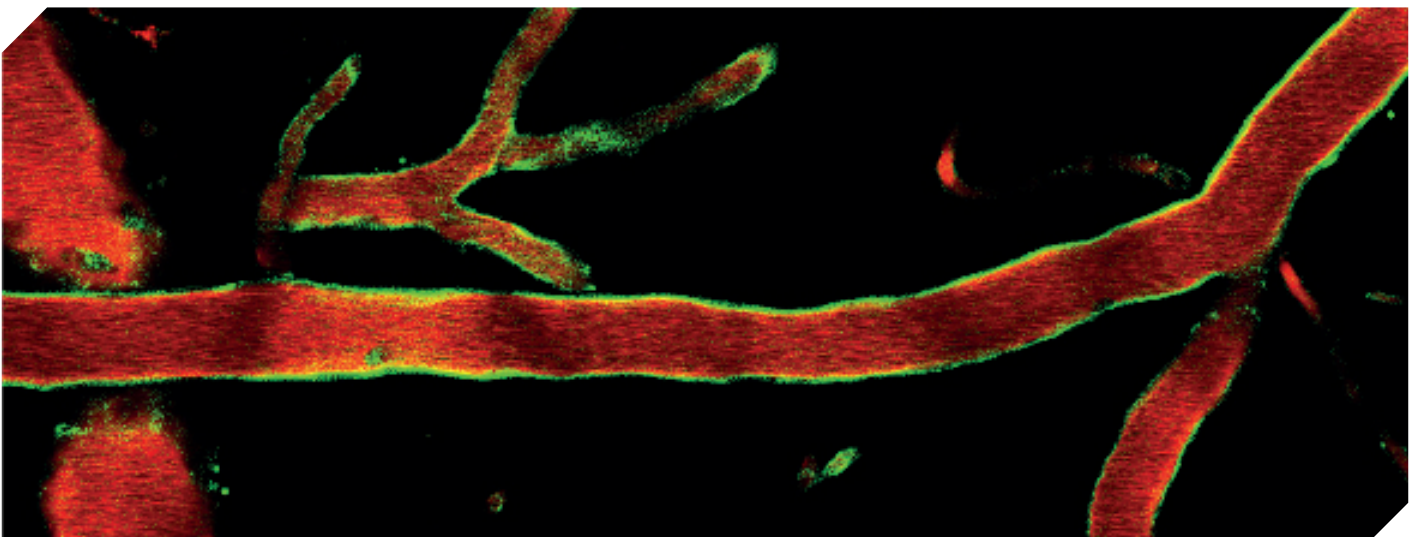
## £9M

will be invested in the new  
Centre over 5 years

The CVDR will benefit from all of the established UK DRI resources including our phenomenal discovery-to-patient research community, technology platforms and expertise, funding opportunities, partnerships, training and tech transfer.

The CVDR will tap into UK DRI’s many existing tools and techniques and will pioneer new research approaches to understand the vascular causes of cognitive impairment and dementia and how to slow or prevent vascular dementia. Collectively the new Centre’s researchers will investigate the fundamental mechanisms of disease, delivering new insight, novel diagnostics and therapeutic treatments. This research will build upon the UK DRI’s significant existing expertise in blood-brain barrier integrity, vascular contributions to AD and molecular analyses of the interplay between different vascular cells in health and disease.

The CVDR will adopt a distributed, network structure. Whereas the Centre Director (and other CVDR Group Leaders) will be physically located at one or more of our existing host universities (Cardiff University, Imperial College London, King’s College London, UCL, University of Cambridge, and University of Edinburgh), these decisions will be based on the optimum intellectual environment, access to critical technology and infrastructure, proximity of intended close collaborators and other tangible benefits offered by our host universities. The Centre Director for the CVDR will be involved in the wider UK DRI “Vascular Theme”, both binding together UK research in vascular dementia as well as promoting the consideration of vascular contributions to dementia for researchers into a variety of diseases and disease processes.

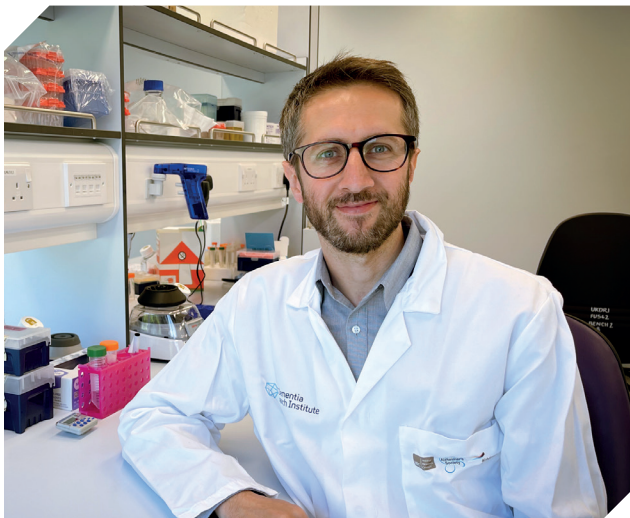


Brain blood vessels of a mouse under a 2-photon microscope (Red = vessel marker, Green = inflamed vessels) courtesy of Dr Axel Montagne

# Existing UK DRI Group Leaders in the vascular dementia research field

## Prof Joanna Wardlaw CBE

An internationally renowned researcher, Prof Joanna Wardlaw CBE is Chair of Applied Neuroimaging and Head of Neuroimaging Sciences and Edinburgh Imaging at the University of Edinburgh. With a background in medicine, she went on to specialise in vascular disease and brain imaging, receiving numerous awards for her work including a CBE for services to neuroimaging and clinical science in 2016. She set up the Brain Research Imaging Centre in 1997 and the Scottish Imaging Network, A Platform for Scientific Excellence, SINAPSE, Initiative in 2007, and has published over 600 papers. Joanna brings her expertise and experience to the UK DRI at Edinburgh to lead research investigating vascular contributions to neurodegeneration of dementia.



## Dr Axel Montagne

Dr Axel Montagne joined the UK DRI at Edinburgh in December 2020. He completed his PhD degree at the University of Caen Normandy (France) in 2012, followed by postdoctoral training at the University of Southern California (USC) in Los Angeles from 2013 to 2016. Axel rapidly became Assistant then Associate Professor at USC in 2016 and 2020, respectively. His career has focused on how cerebrovascular dysfunctions contribute to neurodegeneration and dementia in both animal models and humans. In this UK DRI programme, he combines molecular approaches with rodent non-invasive imaging, particularly MRI and PET, to study the causes and effects of blood-brain barrier dysfunction, with a particular focus on the pericyte-endothelial crosstalk, in the context of neurodegenerative disease.

## Dr Blanca Díaz-Castro

Dr Blanca Díaz-Castro joined the UK DRI at Edinburgh in October 2019. She obtained her PhD degree at the University of Seville - Institute of Biomedicine of Seville (IBiS) and after a brief stay at Northwestern University, Chicago, she completed her postdoctoral research at University of California, Los Angeles. Her career has been centred on the study of molecular and cellular aspects of astrocyte biology that contribute to neuronal function in health and disease. In this UK DRI project, Blanca focuses on dementia research by using her expertise towards the understanding of how blood brain barrier cells communicate with each other and act as a bridge between the periphery and the brain.



# Appointment of the Centre Director for the CVDR

We are looking to appoint an outstanding scientist and visionary leader to the role of the Centre Director for the CVDR. The Centre Director will work with the UK DRI leadership to develop and implement an Institute-wide, highly collaborative, vascular dementia research vision and strategy. The successful candidate will bring an outstanding international reputation in a related research field and exceptional leadership and management experience.

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## Purpose of the role

- To establish and lead a major new research centre of the UK Dementia Research Institute, including the recruitment of new Group Leaders to the Centre.
- To be responsible for the CVDR's scientific direction, operational management, and collaborative opportunities.
- To work closely with the Institute Director and the seven other Centre Directors to establish and incorporate into the UK DRI a diverse and integrated nationwide research portfolio aimed at advancing our basic understanding of vascular dementia and the identification of novel therapeutic opportunities.
- To direct your own internationally competitive research programme relevant to the area of vascular dementia.
- To be an important part of a diverse and multidisciplinary UK DRI leadership team that collectively will transform the field of dementia research.

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## Key responsibilities

### LEADERSHIP

- Provide vision, leadership, motivation and direction for the CVDR's science agenda so as to maximise high-quality scientific delivery, output and outcomes. Maintain a broad balanced and informed perspective of current scientific issues especially those pertaining directly to the field of dementia research.
- Provide the intellectual energy and independent thinking necessary to lead and deliver a programme of cutting edge research and to shape the overall aims and success of the Centre in a manner that will directly engage with and contribute to the overall scientific mission of the UK DRI.
- Lead a personal (Group Leader) programme of outstanding original research directly relevant to vascular dementia.
- Recruit four additional Group Leaders to oversee world-class programmes of research into understanding and preventing vascular dementia.
- Establish and nurture an energetic, collaborative community of vascular dementia researchers across the UK DRI.
- Drive collaborative activities of benefit to the UK DRI's mission that complement external UK strengths across diverse areas of biomedical, clinical, care provision and population research, as well as engage novel technologies and international opportunities.
- Promote and implement the opportunities for technology transfer and translation of research into clinical, health and social care.
- Promote the UK DRI's key role in UK and international vascular dementia research to the general public to inspire effective engagement and participation in research.

- Support and represent the broader corporate interests of the MRC—our principal funder—and embed MRC’s core values within the UK DRI, in terms of promoting scientific and methodological excellence, supporting long-term and cross disciplinary science, promoting open science and effective public engagement.
- Manage all CVDR resources including staff, finance, capital assets and management information systems, in an effective and efficient manner.
- Secure external funding, to further the CVDR’s mission.

### STAFF DEVELOPMENT

- Maintain oversight and responsibility for the recruitment, management, training and career development of CVDR staff, including line management and performance management
- Provide direct mentoring of the CVDR’s Group Leaders.
- Supporting junior researchers to build successful careers and building and shaping capacity at all levels.
- To ensure that the CVDR’s Group Leaders provide appropriate mentoring and career development of their research teams.

### EQUITY, DIVERSITY & INCLUSION

- Champion inclusivity by supporting initiatives designed to promote greater diversity
- Actively support our aim that all individuals should have equal opportunities for employment and advancement on the basis of their skills, aptitudes and abilities.

### CORPERATE CITIZENSHIP

- Promote and maintain the standards expected by the UK DRI and ensure that this is communicated to and fully understood by all CVDR staff.
- Ensure that the CVDR’s research fully meets current ethical standards and adheres to guidelines from MRC and other bodies on ethics and good research practice.
- Identify and manage conflicts of interest which may arise in any aspect of CVDR activities.
- Establish and maintain effective relationships with our host institutions and other key stakeholders locally and nationally.
- Ensure that the CVDR contributes to the harmonious and successful running of the UK DRI.

### WORKING RELATIONSHIPS

- Report to the UK DRI Director
- Work closely with:
  - The other UK DRI Centre Directors
  - Group Leaders & Emerging Leaders from CVDR and wider UK DRI
  - UK DRI senior management staff
  - Host university deans, department heads, and the wider research community.
  - Senior personnel in the national and international research community, including research institutes, funding bodies and commercial companies.



# Selection criteria

## RESEARCH LEADERSHIP

- PhD, MD or equivalent.
- Being of such senior academic standing as to have immediate credibility within the UK DRI and to represent the UK DRI across the wider national and international academic community and with external stakeholders.
- A proven track record as a leading internationally recognised researcher in vascular brain research including a substantial record of highly cited original publications in peer-reviewed journals and recognised for research quality by national/international awarding bodies.
- A strong record of independently obtained competitive, external research grants.
- Understanding of the UK DRI's mission; the capacity to develop a clear vision for the CVDR and the ability to develop, plan and implement the relevant UK DRI's strategic aims.
- Committed to building an inclusive and welcoming Centre through the promotion of diversity across all areas, particularly recruitment, development, and collaboration activities.
- Experience of leading multi-disciplinary teams with a track record of delivery.
- Experience in building, strengthening, and sustaining successful collaborations both within the home institute and externally, influencing outcomes and/or direction.
- Experience of managing resources (funding, equipment and people), with experience of managing other research Group Leaders/professors as highly desirable.
- Evidence of providing strategic and scientific leadership in your field of scientific expertise, leading multi-PI collaborative research community (desirable).
- Experience in identifying and capitalising on opportunities for the creation of intellectual property and the exploitation of commercial potential; cooperating in patent protection and other mechanisms used by home institute to protect intellectual property (desirable).
- Experience with translational science and interactions with clinical and commercial partners or collaborators (desirable).

## PERSONAL ATTRIBUTES

- Excellent interpersonal, social and diplomacy skills with an ability to work co-operatively in a multidisciplinary setting.
- Resourceful and able to act on own initiative.
- Ability to communicate and deal effectively and professionally (i.e., with tact, diplomacy and sensitivity) with a wide range of people at all levels in and outside the university.
- Ability to lead people in an inspiring manner, building them into an excellent team.
- A collaborative and proactive mindset, with the ability to seek appropriate input and make critical and timely decisions.
- Dynamic and forward thinking in your approach to work, with strong problem-solving abilities.
- Meticulous and accurate in all aspects of work, with the ability to work in a fast-paced environment, to meet deadlines and handle stressful situations.

# How to apply

The UK DRI's structure provides that the Centre Director and Group Leaders at the CVDR are employed by the university at which they are based. The successful Centre Director applicant will be granted a tenured professorship with a highly competitive salary at that university, and significant resources to fund a personal research programme.

As part of the application you should identify which of the 6 host institutions (Cardiff University, University of Cambridge, University of Edinburgh, Imperial College London, King's College London, UCL) would be best suited to this position and provide a justification for such request. Each request will be reviewed and the requested university will be engaged as part of the recruitment process should your application be taken forward.

Prospective applicants are invited to contact former Interim UK DRI Director Professor Giles Hardingham ([Giles.Hardingham@ed.ac.uk](mailto:Giles.Hardingham@ed.ac.uk)) in the first instance for an informal and confidential discussion about the role and strategic partnership.

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Applicants are asked to send the following documents to UK DRI Office Coordinator Caroline Hurley ([caroline.hurley@ukdri.ucl.ac.uk](mailto:caroline.hurley@ukdri.ucl.ac.uk)), to arrive by **9am GMT on 15 January 2024**. Please include your surname followed by 'CVDR Director recruitment' in the subject line.

- A cover letter that explains your motivation for joining the UK DRI and for leading the CVDR.
- A description of your vision for the CVDR, including science priorities, research themes that you and the CVDR's other Group Leaders will pursue. Also describe your past and future (next 5 years) research plan, the optimum university host for your research programme, and the other institutions that might host subsequent Group Leaders. 6 pages maximum including references and all material.
- A full curriculum vitae and details of three referees.

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Longlisted candidates will be invited for an initial interview with the Search Committee.

Shortlisted candidates will be invited to attend a formal interview with the Appointment Committee.

Committees will include: UK DRI Director, two UK DRI Centre Directors, an external vascular research expert, a BHF representative and a university representative.







# UK Dementia Research Institute

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