Appointment of:

Programme leaders for the UK Dementia Research Institute
The UK DRI will become a scientific hotbed and one of the most exciting places for breakthrough innovations, so we need ambitious scientists at all career stages and a mix of expertise.

Professor Bart De Strooper, UK DRI Director
The UK Dementia Research Institute (UK DRI) is a joint £250 million investment into dementia research led by the Medical Research Council (MRC) alongside founding charity partners the Alzheimer’s Society and Alzheimer’s Research UK.

The UK DRI will deliver a step-change in the scientific understanding of dementia, generating new targets for drug development, reinvigorating the therapeutic pipeline and helping to transform care.

The new national institute will cover dementia across the research spectrum, spanning Alzheimer's disease, Parkinson's disease, Frontotemporal dementia, vascular dementia, Huntington's disease and beyond.

Bringing together over 400 world-leading scientists in biomedical, care and translational dementia research, the institute will carry out a rich, varied and integrated programme of research. The institute will form a vibrant and interactive community, centred on neuroscience working on around 50 five-year research programmes across the UK in order to:

- accelerate the pace of discovery research to identify new targets for drug development
- develop new approaches for delivering effective clinical trials to targeted patient groups
- attract new partnerships with the biopharmaceutical sector to develop new therapeutics and diagnostics
- develop and promote strategies for interventions that prevent the development or progression of dementia
- provide new insights and technology-based approaches to delivering more effective care and support to people with dementia and their carers.

**Origins**

The Prime Minister’s Challenge on Dementia 2020 set out a clear target for research to deliver the first effective treatments and disease modifying therapies for dementia by 2025 and called for the establishment of a national Dementia Research Institute by 2020. The Medical Research Council took the reins as leader of the institute in November 2015 with a £150 million commitment. Alzheimer’s Society and Alzheimer’s Research UK joined as founding partners in early 2016, contributing an additional £100 million to the initiative.

**Locations**

With its headquarters at University College, London (UCL), the institute comprised of centres across six UK universities: the University of Cambridge, Cardiff University, the University of Edinburgh, Imperial College London, King’s College London and UCL.

From summer 2017, the UK DRI is seeking up to 18 programme leaders at the professor and fellowship level under a first phase of recruitment to develop and lead a programme of research within and complementing the portfolio of the UK DRI. The programmes will need to fit scientifically to the selected centre, which will be the direct employer.
UK DRI Director Professor Bart De Strooper has set an ambitious vision for the institute, identifying the gap in our knowledge of how the healthy brain functions and what leads to its degeneration. The UK DRI will achieve this by focusing on the biological mechanisms underpinning dementia. Researchers at the UK DRI will embrace novel technologies and interdisciplinary approaches in order to build new knowledge and understanding that will lead to new treatments.

Research will initially focus on developing better models of disease and translating research findings into new diagnostics and treatments and, in the longer term, cures. A care research strand will be incorporated as the institute develops, as will research seeking to develop new approaches to prevention.

UK DRI centres and research groups will naturally specialise in certain research areas, but the institute is designed to be opportunistic and grasp all good ideas that could take us further in fighting the biggest health challenge of our generation.

**Creativity and collaboration**

The UK DRI will help build the next generation of dementia researchers, by attracting new researchers into the field and providing access to interdisciplinary training and cutting-edge resources. The institute will set a dynamic pace to establish a vibrant, ambitious and interactive neuroscience community of initially 400 scientists. It will build on the strong dementias research base that already exists in the UK. Top talent and rising stars from all over the world will come to the institute, from different fields across biomedical and translational research. Together this diverse range of expertise will fill and enrich knowledge gaps in dementias.

At the heart of the UK DRI is innovation. A creative ethos will run throughout the institute. A significant part of the budget will be used to expand and implement the new ideas generated by everyone working at the UK DRI, taking account of future partnership opportunities.

The institute will also promote collaborative working, both across the institute and also plugging into dementia initiatives across the UK and beyond. The institute is looking to foster strong industry connections so that discoveries made in the laboratory can lead to new treatments for people with dementia as swiftly as possible.
Building a strategy for international excellence

The director and associate directors are working together to establish the institute’s research priorities. The strategy will be published on our website later in 2017.

The first phase of the UK DRI establishment is focused on basic biomedical research. However, it’s important that while the UK DRI looks for new medical treatments for all dementias, it also ensures that those living with dementias and their carers can lead the fullest lives possible. That’s why research into dementia care will be integrated into the research strategy in 2018.

Our vision for the institute is to identify the gap in our knowledge of how the healthy brain functions and what leads to its degeneration.

Professor Bart De Strooper, UK DRI Director
About the UK DRI centres

Having centres located across the UK allows the UK DRI to bring researchers together for shared scientific inspiration, while making the most of local cutting-edge tools and infrastructure. Each centre is led by an associate director, contributing towards achieving the institute’s shared vision.

The six UK DRI centres are located at: University of Cambridge, Cardiff University, University of Edinburgh, Imperial College London, King’s College London and University College, London (UCL), which also operates as the institute’s headquarters.

UK DRI at UCL

Research from UK DRI at UCL will cover the journey from the patient to the laboratory and back to the patient with improved diagnosis, biomarkers and candidate therapies. Led by Professor Bart De Strooper, UK DRI Director, the team will address the key unanswered mechanistic questions that link genetic and lifecourse factors to dysfunction in molecular pathways, in cells and in neural systems during the progression of dementias.

UCL is the headquarters of UK DRI.

Key science areas at UK DRI at UCL include: Mechanistic understanding of dysfunction in cells and neural systems; gene expression and biological pathways in single cells related to the progression of Alzheimer’s disease; new biomarkers to monitor disease progression; deficits in axonal transport in early neurodegeneration; Wnt signalling in synapses to discover new targets for future dementia therapies.

UK DRI at the University of Edinburgh

UK DRI at the University of Edinburgh will be located on the BioQuarter, Edinburgh’s new multidisciplinary research institute and teaching hospital with access to superb multimodal neuroimaging and clinical research facilities.

The research team lead by Professor Giles Hardingham will examine the complex interactions between cells of the brain, immune system and blood vessels that make up the ‘neurogliovascular unit’. The team brings together strengths in metabolism, inflammation, blood vessel biology and stem cell medicine to explore how interactions at the neurogliovascular unit control the trajectory of neurodegenerative diseases leading to dementia.

UK DRI at King’s College London

UK DRI at King’s College London will be located in the newly built Maurice Wohl Clinical Neuroscience Institute on the Denmark Hill Campus which houses the Nikon Centre of Excellence for Neuroscience Imaging.

Led by Professor Chris Shaw, the team will focus on the misfolding and aggregation of the protein TDP-43, aiming to uncover fundamental mechanism common to several protein misfolding disorders that can inform the development of therapies for multiple forms of dementia.

Key science areas at UK DRI at King’s College London include: Frontotemporal dementia and amyotrophic lateral sclerosis; Parkinson’s and Dementia with Lewy Bodies; Vascular dementia, including Diabetes and Metabolic Syndrome; mechanisms of tauopathy and synaptopathy.
UK DRI at Cardiff University

UK DRI at Cardiff University will be located in the Hadyn Ellis building on the Innovation campus, with access to state of the art facilities within the Cardiff University Dementia Research Network.

Centre Director, Professor Julie Williams and colleagues at Cardiff University have discovered over 27 risk genes for dementia which implicate the innate immune response in determining a person’s susceptibility to developing Alzheimer’s disease. Building on their world-class expertise in genetics and immunology, the UK DRI at Cardiff University will use these discoveries as the starting point for understanding disease mechanisms and producing new therapies.

Key science areas at Cardiff University include: Disease mechanisms building on genetic evidence including; risk profiles; pathways and networks associated with Alzheimer’s disease, Huntington(s) diseases and other dementias; specific focus will be on immunity, lipid processing, endocytosis, DNA repair mechanisms and ApoE.

UK DRI at the University of Cambridge

UK DRI at the University of Cambridge will be based in the newly refurbished Island Research Building on the Cambridge Biomedical Campus.

The centre will focus on the mechanistic processes involved in the earliest stages of neurodegenerative disease to identify therapeutic targets with the greatest potential to prevent dementia. Led by Professor Giovanna Mallucci, the team will use cellular and molecular approaches to better characterise these important processes with a strong emphasis on identifying molecular targets that can be translated into new dementia treatments.

Key science areas at UK DRI at the University of Cambridge include: Molecular and cell biological approaches to understanding disease mechanisms, focusing on proteostasis, translational control at the synapse, myelin/axon interactions in neuronal health and disease, the biomechanics of brain ageing and its role in disease processes and therapy, with an emphasis on inter-disciplinary science, including biophysics and chemistry and molecular neuroscience.

UK DRI at Imperial College London

UK DRI at Imperial College London will be located at the White City campus Hammersmith, London, in the Sir Michael Uren Biomedical Engineering Research Hub due to be completed in 2019, alongside Imperial’s translation and innovation ‘I-HUB’.

Led by Professor Paul Matthews, the research team will bring novel, cutting edge approaches and research tools to the study of dementia to discover new disease mechanisms and therapeutic targets. They will initially focus on the earliest pre-symptomatic stages of Alzheimer’s disease, addressing what determines the transition to neurodegeneration, but will investigate mechanisms that are likely shared across many of the dementias.

Key science areas at UK DRI at Imperial College London include: Neuroinflammation and neurodegeneration; epigenomic influences on risks and progression of dementia; roles of the microbiome in cognition and neurodegeneration; circadian neurobiology and mechanisms of neurodegeneration; neurotechnologies for targeted neuronal and glial modulation.

Left to right: Paul Matthews (Imperial), Giovanna Mallucci (Cambridge), Bart De Strooper (UCL), Giles Hardingham (Edinburgh), Julie Williams (Cardiff), Chris Shaw (KCL)
Programme leader profile: UK DRI Professor

Summary details

Institute: UK Dementia Research Institute (UK DRI)

Centre: Open across six UK DRI centres

Job title: Programme leader (Professor)

Salary range: A competitive salary will be available

Grade: See UK DRI centre’s website for details

Contract type (e.g. Open/Fixed term): Open ended

Hours (e.g. full or part time): Will vary according to UK DRI centre

Programme funding: Up to £3 million provided over five years

Detailed job description

Overall purpose:

To direct an internationally competitive research programme within the UK Dementia Research Institute (UK DRI) relevant to the area of neurodegeneration, with the ultimate aim of improving human health. You will draw on the knowledge and expertise of other colleagues both within and outside of the UK DRI through collaborative inputs and team working. The UK DRI is looking to transform the field of dementias research and welcomes scientists from all disciplines.

Main duties:

• To develop and lead a programme of research within and complementing the portfolio of the UK DRI appropriate to the selected centre.

• To recruit, train, line manage and develop research team members.

• To manage the financial and equipment resources of the programme, including purchasing and managing the effective use of capital equipment.

• To publish the work of the programme in appropriate internationally visible scientific journals and other relevant media.

• To present the results of the research at national and international meetings and conferences.

• To secure and manage external funding from grant-giving bodies and industries to supplement UK DRI programme funding.

• To develop interactions with industry and translate the results of research into useful new approaches or treatments that can be taken up by the appropriate industry, ultimately to improve human health.

• To ensure that any intellectual property is protected according to UK DRI Ltd policy for the benefit of the UK DRI, the UK economy and patients and carers.
To contribute to the UK DRI’s engagement with patients and the broader public, in particular to communicate the excitement of research to the public in an accessible way and to help raise the profile of the UK DRI.

To respond to the UK DRI Board as required by the director.

**Key responsibilities:**

- Research leadership of a group of research scientists, comprising postdoctoral fellows, PhD students and technical support staff.

- Planning the scientific direction of the research programme aimed at key questions within the overall scientific remit of the UK DRI; being accountable for presenting the programme for peer review, as part of the institute’s scientific assessment, in accordance with the funders’ procedures.

- Contributing to the overall scientific mission of the UK DRI and the HEI.

- Directing the activities of the research group by supervising some projects personally and overseeing projects delegated to group members. You will be expected to 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 group.

- Disseminating the research outputs from the group by publication of results, presentations at scientific meetings and responding to media enquiries. Working with HEI’s press office and the UK DRI to ensure that achievements are widely publicised through all suitable media.

- Working as a scientific leader within the UK DRI institute and promoting this concept within the UKDI as a single institute.

- Determining and managing the resource requirements to sustain the programme, including the staffing structure required for taking forward the programme of research to success.

- With operational support, maintain oversight and responsibility for the recruitment, management, training and career development of group members, including line management and performance management, in accordance with the UK DRI and the host HEI’s policies and procedures.

- Contributing to the harmonious and successful running of the UK DRI and HEI and helping to ensure that the research programme team does the same. Actively maintaining and managing the relationship and interface with the host HEI.

- Generating and managing collaborations both within the centre, the UK DRI, the host HEI and with external establishments.

- Identifying and acting on opportunities for the creation of intellectual property and cooperating in patent protection and in exploitation according to UK DRI policy.

- Contributing to the funders’ and the HEI’s commitment in the areas of training, enhancing public awareness of scientific issues, interaction with academic and health service providers and commercial exploitation where appropriate.

- Maintaining a broad balanced and informed perspective of current scientific issues especially those pertaining directly to the field of research.

- Contributing to scientific progress in the field as a whole by, for example, membership of expert committees, editing specialist journals and refereeing funding applications.

- Contributing to public communications initiatives in order to facilitate greater public engagement with science and specifically, contributing to engagement with patients and their carers.

- Ensuring all research within the programme is conducted in accordance with good practice and in compliance with UK DRI and HEI policies and legal requirements.

**Working relationships:**

Within the UK DRI you will report to the Centre Associate Director and, in turn, to the Director of UK DRI.

As an independent Programme Leader you will interact with scientists and support staff at all levels within the centre and the UK DRI, the host HEI and externally with senior personnel in the national and international research community, including research institutes, funding bodies and commercial companies.
Equality & Diversity

The UK DRI and the HEI value the diverse skills and experience of employees and are committed to achieving equality of treatment for all. Our objectives are that all individuals shall have equal opportunities for employment and advancement on the basis of their skills, aptitudes and abilities. The UK DRI and the HEI are committed to the engagement and retention of the best possible talent and to creating an environment that encourages excellence in scientific research through good equalities and diversity leadership and management.

Corporate/Local responsibilities & requirements

The job holder must at all times carry out their responsibilities with due regard to the UK DRI and host HEI’s:

- Code of Conduct
- Equality and Diversity policy
- Health and Safety policy
- Data Protection and Security policy

Job descriptions should be reviewed on a regular basis and at the annual appraisal. Any changes should be made and agreed between the post holder and their manager.

The above lists are not exhaustive and the job holder is required to undertake such duties as may reasonably be requested within the scope of the post. All employees are required to act professionally, co-operatively and flexibly in line with the requirements of the post, the UK DRI and the host HEI.

Person requirements

Education / qualifications / training required

Essential:
- PhD or equivalent.
- Has been recognised for quality of research by national and/or international awarding bodies.

Desirable:
- Bringing novel approaches and insights to the field of neurodegeneration research.

Previous work experience required

Essential:
- Proven scientific leadership.

Knowledge and experience

Applicants should have a proven track record of internationally competitive scientific research relevant to the UK DRI core programme.

Essential:
- Demonstrates that the proposed research interfaces and complements the present portfolio and future science strategy of the centre and the UK DRI as a whole.
• Experience of planning and developing projects or programmes of research.

• Demonstrates scientific innovation, enabling apparently intractable problems to be successfully tackled and overcome.

• Strong record of publications in high impact journals, with emphasis on quality.

• Proven experience in presenting and defending the results of research.

• Record of being awarded competitive grants.

Desirable:
• Experience of having influenced knowledge or wider practice in previous research field.

• Experience of providing the critical thinking required to create and run an independent research programme.

• Experience of leading successful projects independently.

• Experience in building, strengthening and sustaining successful collaborations both within the home institute and externally, influencing outcomes and/or direction.

• 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.

• Experience of managing resources (funding, equipment and people).

• Experience in recruiting, training and line managing PhD students and postdoctoral scientists.

• Experience of communicating and engaging with a wide range of stakeholders including the press, the public, including patients and their carers and schools.

Personal skills / behaviours / qualities

Essential:
• Proactive and creative independent thinker.

• Ability to lead people within a research programme group in an inspiring manner, building them into an excellent research team.

• Strong skills in working with staff of different levels, including non-science specialists, across the home institute.

• Ability to take critical and timely decisions.

• Tenacity and resilience.

• Good communicator.

Additional information

We are looking for a dynamic, dedicated, individual with a flair for innovation who will contribute across the UK DRI as well as within the host centre, and who is appreciative of the importance of hard work.
Programme leader profile:
UK DRI Fellow

Summary details

Institute:
UK Dementia Research Institute (UK DRI)

Centre:
Open across six UK DRI centres

Job title:
Programme Leader (Fellow)

Salary range:
A competitive salary will be available

Grade:
See UK DRI centre’s website for details

Contract type (e.g. Open/Fixed term):
Open ended

Hours (eg full or part time):
Will vary according to UK DRI centre

Programme funding:
Up to £1.5 million provided over five years

Detailed job description

Overall purpose:
To lead an internationally competitive research programme within the UK Dementia Research Institute (UK DRI) relevant to the area of neurodegeneration, with the ultimate aim of improving human health. You will draw on the knowledge and expertise of other colleagues both within and outside of the UK DRI through collaborative inputs and team working. The UK DRI is looking to transform the field of dementias research and welcomes scientists from all disciplines.

Main duties:

• To develop and lead independently a programme of research within and complementing the portfolio of the UK DRI appropriate to the selected centre.

• To recruit, train, line manage and develop members of the research team.

• To manage the financial and equipment resources of the programme, including purchasing and managing the effective use of capital equipment.

• To publish the work of the programme in appropriate internationally visible scientific journals and other relevant media.

• To present the results of the research at national and international meetings and conferences.

• To secure and manage external funding from grant-giving bodies and industries to supplement UK DRI programme funding.

• To develop interactions with industry and translate the results of research into useful new approaches or treatments that can be taken up by the appropriate industry, ultimately to improve human health.

• To ensure that any intellectual property is protected according to UK DRI Ltd policy, for the
benefit of the UK DRI, the UK economy and patients and carers.

• To contribute to the UK DRI’s engagement with patients and the broader public, in particular to communicate the excitement of research to the public in an accessible way and to help raise the profile of the UK DRI.

• To respond to the UK DRI Board as required by the Director.

Key responsibilities:

• Research leadership of a group of research scientists, comprising postdoctoral fellows, PhD students and technical support staff.

• Planning the scientific direction of the research programme aimed at key questions within the overall scientific remit of the UK DRI; being accountable for presenting the programme for peer review as part of the institute’s scientific assessment, in accordance with the funders’ procedures.

• Contributing to the overall scientific mission of the UK DRI and the HEI.

• Directing the activities of the research group by supervising some projects personally and overseeing projects delegated to group members. You will be expected to 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 group.

• Disseminating the research outputs from the group by publication of results, presentations at scientific meetings and responding to media enquiries. Working with HEI’s press office and the UK DRI to ensure that achievements are widely publicised through all suitable media.

• Working as a scientific leader within the UKDI as a single institute and promoting this concept within the group and more widely.

• Determining and managing the resource requirements to sustain the programme, including the staffing structure required for taking forward the programme of research to success.

• With operational support, maintain oversight and responsibility for the recruitment, management, training and career development of group members, including line management and performance management, in accordance with the UK DRI and the host HEI’s policies and procedures.

• Contributing to the harmonious and successful running of the UK DRI and HEI and helping to ensure that the research programme team does the same. Actively maintaining and managing the relationship and interface with the host HEI.

• Generating and managing collaborations both within the centre, the UK DRI, the host HEI and with external establishments.

• Identifying and acting on opportunities for the creation of intellectual property and
cooperating in patent protection and in exploitation according to UK DRI policy.

• Contributing to the funders’ and the HEI’s commitment in the areas of training, enhancing public awareness of scientific issues, interaction with academic and health service providers and commercial exploitation where appropriate.

• Maintaining a broad balanced and informed perspective of current scientific issues especially those pertaining directly to the field of research.

• Contributing to scientific progress in the field as a whole by, for example, membership of expert committees, editing specialist journals and refereeing funding applications.

• Ensuring all research within the programme is conducted in accordance with good practice and in compliance with UK DRI and HEI policies and legal requirements.

Equality & Diversity

The UK DRI and the HEI value the diverse skills and experience of employees and are committed to achieving equality of treatment for all. Our objectives are that all individuals shall have equal opportunities for employment and advancement on the basis of their skills, aptitudes and abilities. The UK DRI and the HEI are committed to the engagement and retention of the best possible talent and to creating an environment that encourages excellence in scientific research through good equalities and diversity leadership and management.

Corporate/Local responsibilities & requirements

The job holder must at all times carry out their responsibilities with due regard to the UK DRI and host HEI’s:

• Code of Conduct
• Equality and Diversity policy
• Health and Safety policy
• Data Protection and Security policy

Job descriptions should be reviewed on a regular basis and at the annual appraisal. Any changes should be made and agreed between the post holder and their manager.

The above lists are not exhaustive and the job holder is required to undertake such duties as may reasonably be requested within the scope of the post. All employees are required to act professionally, co-operatively and flexibly in line with the requirements of the post, the UK DRI and the host HEI.

Person requirements

Education / qualifications / training required

Essential:
• PhD or equivalent, excellent research training.

Desirable:
• Has been recognised for quality of research by national and/or international awarding bodies.

Previous work experience required

Essential:
• Substantial postdoctoral experience.

• Wide knowledge of the techniques and methodology required to carry out the proposed research relevant to neurodegeneration.

Desirable:
• Experience with supervision of staff and/or students.

Knowledge and experience:

Applicants should have a proven track record of internationally competitive scientific research relevant to the UK DRI core programme.

Essential:
• Demonstrates that the proposed research interfaces and complements the present...
portfolio and future science strategy of the centre and the UK DRI as a whole.

- Experience of planning and developing projects or programmes of research.
- Demonstrates scientific innovation, enabling apparently intractable problems to be successfully tackled and overcome.
- Strong record of publications in high impact journals, with emphasis on quality.
- Proven experience in presenting and defending the results of research.
- Record of being awarded competitive grants.
- Excellent scientific reputation.

Desirable:
- Experience of having contributed to knowledge or wider practice in the field.
- Experience of providing the critical thinking required to create and run an independent research programme.
- Experience of or clear potential to lead successful projects independently.
- Experience in building, strengthening and sustaining successful collaborations both within the home institute and externally, influencing outcomes and/or direction.
- 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.
- Experience of managing resources (funding, equipment and people). Experience in recruiting, training and line managing of staff or students.
- Experience of communicating and engaging with a wide range of stakeholders including the press, the public, including patients and their carers and schools.

Personal skills / behaviours / qualities

Essential:
- Proactive and creative independent thinker.
- Evidence of potential to lead people within a research programme group in an inspiring manner, building them into an excellent research team.
- Strong skills in working with staff of different levels, including non-science specialists, across the home institute.
- Ability to take critical and timely decisions.
- Tenacity and resilience.
- Good communicator.

Additional information

We are looking for a dynamic, dedicated, individual with a flair for innovation who will contribute across the UK DRI as well as within the host centre, and who is appreciative of the importance of hard work.
How to apply

We encourage you to contact the director of your preferred centre for an informal discussion.

Applicants should choose one centre based on best science and location fit, submitting one application to UK DRI as a whole via your preferred centre. Your location preference will be strongly considered at selection stage.

When applying you will need to provide:
- your CV with full publication list
- your motivation for application (200 words)
- a research statement including a half-A4 page vision and objectives and 1.5 pages of your experimental plans
- names of three personal referees
- your preferred location.

Please click on the links below to find out more from your preferred UK DRI centre.

Should you have any questions on any aspects of applying, please contact UKDRI@headoffice.mrc.ac.uk

UK DRI at University College London
UK DRI at the University of Cambridge
UK DRI at Cardiff University
UK DRI at the University of Edinburgh
UK DRI at Imperial College London
UK DRI at King’s College London