

<b>Job Title:</b>	Advanced Research Fellow
<b>Department/Division/Faculty:</b>	Brain Sciences / UK DRI / Medicine
<b>Campus location:</b>	White City Campus and Hammersmith Campus (East Acton)
<b>Job Family/Level:</b>	Academic and Research, Advanced Research Fellow
<b>Responsible to:</b>	Prof Paul M. Matthews, Head of the Department of Brain Sciences and Director for the UK DRI Centre at Imperial
<b>Key Working Relationships (internal):</b>	UK DRI Group Leaders; research, technical and administrative staff, and students in the Department of Brain Sciences, and across Imperial College London, as appropriate.
<b>Key Working Relationships (external):</b>	Prof Bart De Strooper, UK DRI Director, HQ leadership team, UK DRI Group Leaders and research groups of the national UK DRI
<b>Contract type:</b>	Full time and fixed term until 31 <sup>st</sup> March 2023

### Research Programme

Dementias represent one of the toughest medical and economic challenges facing our society today. The UK Prime Minister's Challenge on Dementia 2020 set a target for research to identify treatments for dementia by 2025. The Medical Research Council (MRC) and charity partners the Alzheimer's Society and Alzheimer's Research UK have invested £290m in a new UK Dementia Research Institute (UK DRI) <https://ukdri.ac.uk/> to fulfil this ambition.

Imperial College London is one of the world's most highly ranked global universities (<https://www.imperial.ac.uk/study/pg/why-imperial/reputation-and-rankings/>). It has made a major commitment to neurodegenerative disease research in its new Department of Brain Sciences (<https://www.imperial.ac.uk/brain-sciences>).

This post will be part of the UK DRI Centre at Imperial (<https://www.imperial.ac.uk/dementia-research-institute>), and the Department of Brain Sciences. The Department has modern research facilities on the Hammersmith Hospital Campus and now also has state-of-the-art facilities on Imperial's new White City Campus (<https://www.imperial.ac.uk/white-city-campus/>). It also maintains two of the major national brain banks and supports a wide range of internationally leading, dynamic translational neuroscience research programmes.

The UK DRI Centre at Imperial College London was established as one of seven national centres of excellence embedded in major UK universities that together, are intended to transform the treatment and care for people with dementia and lead the way in early diagnosis and prevention. Our centre addresses dementia in the context of brain changes over the lifespan, homeostatic mechanisms and influences of environment and lifestyle. We develop new tools for discovery of disease mechanisms and directly address the identification of new therapeutic targets and treatment concepts. Our clinical leadership fosters a translational environment enabling discoveries in the human diseases, as well as in animal or cellular models.

Scientists in the UK DRI are pursuing fundamental neuroscience questions with a highly translational focus, working *in vitro*, with preclinical models and in human studies. The environment is highly collaborative and interdisciplinary. The successful candidate will work with team members with diverse backgrounds including biotechnology, AI, neuroscience, molecular biology, mathematics and psychology.

### **Purpose of the Post**

The UK DRI is looking for a successful, dynamic group leader committed to exploring transformative approaches to dementia research in a highly multi-disciplinary environment. We are looking particularly for scientists with demonstrable expertise in neurodegeneration/dementia research to establish their own research programme. While not intended to be exhaustive, specific areas of interest 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
- Cellular and system homeostatic mechanisms that limit neurodegeneration
- Neurotechnologies for targeted neuronal and glial modulation

The Advanced Research Fellow will be expected to plan and lead high quality programme of research in the UK DRI, undertake project management and/or supervise multi-disciplinary teams. In addition, the Fellow will be expected to submit publications to refereed journals and to attract external research funding.

### **Key Responsibilities**

- To lead and undertake research of the highest quality in the broad area of neurodegeneration/dementia
- Publish research papers in peer-reviewed journals
- Attend and present work at international conferences
- Obtain research grants from national and international funding bodies, and obtain funding from industry where appropriate
- Supervise postdoctoral researchers, postgraduate students and undergraduate research projects
- Maintain a broad balanced and informed perspective of current scientific issues especially those pertaining directly to the field of research.
- To develop contacts and build relationships within the College and across the UK DRI, as well as with other research organisations and with industry to realise the impact of research results into useful new approaches and treatment to ultimately improve human health.
- Contribute to scientific progress in the field as a whole by, for example, membership of expert committees, editing specialist journals and refereeing funding applications.
- Contribute to public communications initiatives in order to facilitate greater public engagement with science and specifically, contributing to engagement with patients and their carers.

### **Management**

- To appropriately manage the resources allocated to their fellowship.
- To write reports for submission to the UK DRI Board.
- To participate in the business planning and objective setting process for the UK DRI, particularly in preparation for the quinquennial review exercise.
- To ensure up to date knowledge of and compliance with all College policies related to Health and Safety
- To fulfil the safety responsibilities required of supervisors including, but not limited to, induction, training, recording/monitoring, risk assessment, and any specialist area of work e.g. GMO, CBS, biohazard, CL2/3

### **Research Duties**

- To continue to develop a personal programme of research, developing research proposals and funding bid and being successfully awarded them.
- To take initiatives in the planning and leading of research
- To manage research projects

- To direct the work of small research teams, supervising and taking responsibility for the research team
- To write reports for submission to research sponsors
- To present findings via publications to referred journals and to colleagues at conferences
- To provide guidance to staff and students
- To attend relevant workshops and conferences as necessary
- To develop contacts and research collaborations within the College and the wider community
- To promote the reputation of the Group, the Department and the College
- To ensure all research is conducted in accordance with good practice and in compliance with HEI policies and legal requirements (as well as requirements of the UK DRI if jointly appointed).

### Education

- To assist in the teaching at all levels including UG, BSc, PhD
- To assist in the administrative duties involved in teaching including examining and the development of learning and teaching in general
- To supervise and provide pastoral care for all students

### Other Duties

- To undertake appropriate administration tasks
- To be responsible for ensuring that data is accurate, up-to-date and complete.
- To attend relevant meetings
- To undertake any necessary training and/or development

### Person Specification

<b>Requirements</b>	<b>Essential (E)/ Desirable (D)</b>
Candidates/post holders will be expected to demonstrate the following:	
<b>Education</b>	
PhD in neuroscience or a closely related discipline, or equivalent research, industrial or commercial experience	E
<b>Experience &amp; Knowledge</b>	
Knowledge of the neurodegeneration / dementia	E
Knowledge of research methods and statistical procedures	E
Practical experience within a research environment and / or publication in relevant and refereed journals	E
Experience of dealing with sponsors and patients	E
A record of high-quality publications in international peer-reviewed journals	E
Demonstrated ability to interact with other academics	E
Experience of the supervision of research of undergraduate/postgraduate students or postdoctoral staff	E
Experience of presenting work at significant conferences	E
Evidence of having made a significant contribution to writing proposals	E
Distinctive contributions to research activity, coupled with demonstrated success in delivering research results with evidence of national recognition and a nascent international reputation	D
Evidence of teaching and teaching support	D
<b>Skills &amp; Abilities</b>	
The appropriate technical skills to perform research in their field (for example, laboratory, analytical, programming, or fieldwork skills)	E
Ability to conduct a detailed review of recent literature	E
Ability to develop and apply new concepts	E
Creative approach to problem-solving	E
Excellent verbal communication skills and the ability to deal with a wide range of people	E
Excellent written communication skills and the ability to write clearly and succinctly for publication	E
Ability to direct the work of a small research team and motivate others to produce a high standard of work	E
Ability to organise own work with minimal supervision	E
Ability to prioritise own work in response to deadlines	E
Advanced computer skills, including word-processing, spreadsheets and the Internet	E
<b>Personal Attributes</b>	
Willingness to work as part of a team and to be open-minded and cooperative	E
Flexible attitude towards work	E
Discipline and regard for confidentiality and security at all times	E
Willingness to undertake any necessary training for the role	E
Willingness to travel both within the United Kingdom and abroad to conduct research and attend conferences	E

Please note that job descriptions cannot be exhaustive and the post-holder may be required to undertake other duties, which are broadly in line with the above key responsibilities.

Imperial College is committed to equality of opportunity and to eliminating discrimination. All employees are expected to follow the [7 Imperial Expectations](#) detailed below:

- 1) Champion a positive approach to change and opportunity

- 2) Communicate regularly and effectively within and across teams
- 3) Consider the thoughts and expectations of others
- 4) Deliver positive outcomes
- 5) Encourage inclusive participation and eliminate discrimination
- 6) Support and develop staff to optimise talent
- 7) Work in a planned and managed way

Employees are also required to comply with all College policies and regulations paying special attention to:

- Confidentiality
- Conflict of Interest
- Data Protection
- Equal Opportunities
- Financial Regulations
- Health and Safety
- Information Technology
- Smoking
- Private Engagements and Register of Interests

They must also undertake specific training and assume responsibility for safety relevant to specific roles, as set out on the [College Website Health and Safety Structure and Responsibilities](#) page.

*The College is a proud signatory to the San-Francisco Declaration on Research Assessment (DORA), which means that in hiring and promotion decisions, we evaluate applicants on the quality of their work, not the journal impact factor where it is published. For more information, see <https://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-evaluation/>*

*The College believes that the use of animals in research is vital to improve human and animal health and welfare. Animals may only be used in research programmes where their use is shown to be necessary for developing new treatments and making medical advances. Imperial is committed to ensuring that, in cases where this research is deemed essential, all animals in the College's care are treated with full respect, and that all staff involved with this work show due consideration at every level.*

*<http://www.imperial.ac.uk/research-and-innovation/about-imperial-research/research-integrity/animal-research/>*

*Committed to equality and valuing diversity, we are an Athena SWAN Silver Award winner, a Stonewall Diversity Champion, a Disability Confident Employer and work in partnership with GIRES to promote respect for trans people.*

**May 2020**