

GROUP LEADER – CLINICAL AND RISK FACTORS FOR NEURODEGENERATIVE DISEASES Recruitment for the Barcelonaβeta Brain Research Center

At the **Barcelonaβeta Brain Research Center (BBRC)**, Group leaders benefit from:

- A nurturing, international and collaborative environment
- An attractive starting package to set-up the group, an initial team and lab expenses
- Access to cutting edge core facilities
- A broad network of international and interdisciplinary collaborations
- Leadership training and mentorship
- Tailored support in raising competitive funds

About the employer

The Barcelonaβeta Brain Research Center (BBRC; <https://www.barcelonabeta.org/>) is a research center dedicated to the prevention of Alzheimer's disease (AD) and the study of cognitive functions affected in healthy and pathological aging. It was created in 2012 by the Pasqual Maragall Foundation (www.fpmaragall.org), with the support of the Pompeu Fabra University (www.upf.edu).

The mission of BBRC is to provide innovative solutions to decipher and prevent biological changes and cognitive dysfunction associated with neurodegenerative diseases. Due to the aging of the world population, these diseases constitute a global challenge with dementia being predicted to reach epidemic levels in 2050, with more than 150 million people affected, if strategies to prevent or delay its appearance and development are not found.

BBRC received the HR Excellence in Research award (HRS4R) granted by the European Commission; a recognition for its adherence to the principles of the European Charter for Researchers and the Code of Conduct for the Recruitment of Research Staff. The center offers a **stimulating working environment** in accordance with the Charter and Code, which describes the rights and responsibilities of researchers and their employers, and contributes to the **creation of a transparent, attractive and open ecosystem** at the international level.

The Pasqual Maragall Foundation, Pompeu Fabra University and “La Caixa” Foundation (<https://fundacionlacaixa.org/en/home>) are permanent members of the BBRC Board. The center is affiliated and located in the Ciutadella Campus of the Pompeu Fabra University of Barcelona, in a building inaugurated in 2016. The BBRC headquarters have excellent technical facilities, including a 3T Magnetic Resonance scanner dedicated to research, and spaces for conducting Clinical Trials and electroencephalography. *State-of-the-art* scientific facilities, effective management and continuous high-standard peer-review evaluations are BBRC's core proceedings to ensure achieving world-class research results.

BBRC is also part of the Barcelona Biomedical Research Park (PRBB), a large research facility that hosts other seven different research institutions related to biomedical research, including the Center for Genomic Regulation (CRG), the Hospital del Mar Medical Research Institute (IMIM), the Department of Experimental and Health Sciences of the Pompeu Fabra University (CEXS-

UPF), the Institute of Evolutionary Biology (IBE CSIC-UPF), the Barcelona Institute of Global Health (ISGlobal) and the Barcelona site of the European Molecular Biology Laboratory (EMBL), among others. Such a rich environment fosters a multidisciplinary, collaborative and stimulating international environment in close contact with a clinical setting, thus conducive to translational research.

The ALFA parent cohort

The setup of preventive studies requires the **understanding, from a molecular perspective, of how risk factors generate the risk and the identification of individuals with an increased risk of developing AD** in the near future that are suitable to be recruited as asymptomatic subjects in prevention studies and clinical trials. With this in mind, and aiming at increasing our knowledge of the pathophysiology and pathogenic factors emerging at early preclinical AD stages, BBRC started the **ALFA (for ALzheimer and Families)** programme for the prospective follow-up of a cohort of cognitively normal subjects, most of which are the offspring of AD patients. Our programme currently consists of the ALFA registry, the ALFA parent cohort with its nested ALFA Genetics and the ALFA+ studies and other associated ones. The ALFA registry contains basic demographic data of people willing to participate in current and/or future BBRC projects. The **ALFA parent cohort is composed of 2,743 cognitively unimpaired participants, most of them first-degree descendants of AD patients**, aged between 45 and 74 years, who have been thoroughly characterised from a sociodemographic, clinical, genetic, lifestyle and cognitive point of view. Blood samples of these participants have also been acquired and stored.

The ALFA+ cohort

A subset of the ALFA parent cohort participants is invited to take part in a **nested longitudinal long-term study, the ALFA+ study**, in which a more detailed phenotyping is performed. On top of a similar characterization as in the ALFA parent cohort (neuropsychological, clinical, etc.), it entails the acquisition and determination of both **fluid (cerebrospinal fluid [CSF] and blood sample collection) and imaging (magnetic resonance imaging [MRI] and positron emission tomography [PET]) biomarkers**. In brief, the ALFA+ study will serve to untangle the natural history of the disease and to model the preclinical stages in order to develop successful trials. The ALFA+ longitudinal cohort includes **more than 400 individuals, which are selected to participate from the ALFA parent cohort based on their specific AD risk profile**. The ALFA+ study started in October 2016 and complete follow up visits every three years, the second visit being currently ongoing.

Prioritized Research Line(s):

Research in the Alzheimer field will progress to fill in the following knowledge gaps to enable **the establishment and development of AD prevention studies and trials**. Specifically, the following points appear as highly relevant:

- Research on the relationship and dynamics between risk factors for AD and the development of AD pathophysiology
- Research on key factors contributing to cognitive decline in early AD
- Integration of demographic, epidemiologic, genetic and biomarker data (e.g., fluid or neuroimaging) to predict the risk to develop AD. Improve the diagnosis, treatment and prevention of AD.
- Identification of subjects at risk of specific profiles that will most benefit from participation in AD prevention clinical trials.

- Design and participation in pharmacological and non-pharmacological clinical trials.
- Applying new digital platforms for the longitudinal clinical and cognitive assessment of study participants and patients.

Our vision

The Clinical and Risk Factors For Neurodegenerative Diseases Group will exploit the data produced by the ALFA cohort to ask clinically relevant questions. Its focus will be on the prevention of AD and related dementias and/or on healthy aging research from a multidisciplinary perspective. The group examines the biological processes that precede dementia's onset with the final aim of establishing prevention programs to stop or, at least, to delay the occurrence of cognitive decline and, ultimately, dementia in asymptomatic persons at risk. The Group Leader is expected to direct a multi-disciplinary team with experts in clinical, genetic, biomarker, healthy aging and neuropsychological assessment.

The Group will be committed to conduct high-quality and cutting-edge research through direct interaction with the rest of the BBRC groups and researchers, in order to maximise the quality of the BBRC's research output. The group will also provide excellent teaching and training to PhD and MSc Students, Postdocs, clinical fellows and all other researchers that share our passion for this field.

About the position

The Barcelonaβeta Brain Research Center (BBRC) invites applications from outstanding investigators for a Group Leader position. We are recruiting at all seniority levels and are open to consider full- or part-time recruitment.

The successful candidate is expected to conduct an independent research project with the final aim of establishing prevention programs to stop or, at least, to delay the occurrence of cognitive decline and, ultimately, dementia in asymptomatic persons at risk.

Requirements

- MD and PhD (preference will be given to certified Neurologists).
- Solid publication record.
- Solid record of grants awarded as a PI.
- Proven involvement in international research consortia.
- Proven experience in the leadership of international research project (*e.g.*, acts as WP lead).
- Experience in clinical trials is preferred.

Selection process

Candidates pre-selected by an internal scientific committee will be invited for an interview at the BBRC. The interview will include the following:

- Open seminar about their past work and future research plans.
- Chalk Talk including an in depth interview with the different members of the panel.
- Opportunity to visit the center meet with different BBRC group leaders.

The panel will consist of the internal selection committee, members of the scientific advisory board and *ad-hoc* external experts. According to our Recruitment Policy, and our Declaration of Commitment to the Code of Conduct for the Recruitment of Researchers, the selection committees should bring together diverse expertise and competences and should have an adequate gender balance, aiming for at least one third of the panel members per gender.

An official offer letter will be issued in writing to the selected candidates.

Submission of letters of reference

The pre-selected candidate will be informed in writing, and letters of reference will be requested.

The referees will receive an e-mail with the request to submit their letter of recommendation to the candidate's application.

Please be advised that it is the responsibility of the candidate to make sure that the referees will submit the reference letters before the agreed deadline.

Benefits

We offer a competitive salary with a 5-year contract that, depending on experience, will be tenured or tenure-track. We provide fully equipped laboratory space for up to 7-9 people, and a flexible financial package to start a team and lab expenses.

Application procedure

To apply, please submit a single PDF file containing the following:

- 1) Cover letter describing research interests and relevant background;
- 2) Motivation letter including your potential research interests, preferences of full-time or part-time appointment and foreseen synergies with other groups at the BBRC
- 3) Full CV
- 4) The names of up to three individuals who could provide reference letters. All files or inquiries should be submitted electronically to: rh@barcelonabeta.org

Subject: CLINICAL AND RISK FACTORS NEURODEGENERATIVE DISEASES GROUP LEADER

Deadline: May the 21st 2021

We inform you that your personal data will be part of a file which Pasqual Maragall Foundation and Barcelonabeta Brain Research Center are responsible for in order to manage the job offer you have requested. Once the process is complete, the data processed will be erased.

You have the right to exercise the rights of access, rectification, cancellation and opposition recognized in Regulation (EU) 2016/679 (General Data Protection Regulation), to be addressed to the Pasqual Maragall Foundation and Barcelonabeta Brain Research Center: c/ Wellington 30, 08005 Barcelona.