POSTDOCTORAL CANDIDATE INTERESTED IN APPLYING FOR A MSCA-IF IN NEUROSCIENCES

Alzheimer’s disease and other cognitive disorders

Are you a postdoctoral researcher thinking about your next career move? The Marie Skłodowska-Curie Individual Fellowships (MSCA-IF) are a great option if you are an experienced researcher looking to give your career a boost by working abroad.

Institute of Neurosciences of the University of Barcelona allows you to work in a first class research environment while benefitting from an attractive salary to cover living, travel and family costs.

Group and project information

Applicants will be integrated into the research group “Alzheimer’s disease and other cognitive disorders group (ADCD)" group (P.I. Raquel Sanchez-Valle).

The ADCD group is a clinical and translational research group linked to the clinical unit with the same name at the Hospital Clinic of Barcelona.

The main research lines of the group are:

a) Study of genetically determined dementias: The first studies were carried out in autosomal dominant Alzheimer's disease (ADAD), and currently the group has ongoing studies that also include genetic frontotemporal degeneration and genetic prion diseases. The aims of this research line are to characterize the biochemical, cognitive and neuroimaging features in preclinical and early phases of genetic dementias and to identify prognostic biomarkers and determinants of the severity of the biological activity. We also are performing, transcriptome and DNA methylome comparison between genetic and sporadic forms. Our group had led 7 funded research grants, which resulted in several publications in the field. We participate in international consortiums such as the Dominant Inherited Alzheimer Network (DIAN) and the Genetic Frontotemporal Initiative (GENFI). Dr. Raquel Sánchez-Valle leads this research line.

b) Diagnostic and prognostic biomarkers of early-onset sporadic Alzheimer's disease: The early onset of symptoms, as well as the fact that Alzheimer's disease can present with atypical forms make the diagnosis of these patients challenging. In this sense, the ADCD group works at improving the diagnosis and characterization of patients with early-onset dementia through biochemical biomarkers and MRI and
positron emission tomography neuroimaging and deciphering the genetic basis of the disease. This line of research has been awarded with 4 research grants and resulted in the publication in several articles in high impact journals and two doctoral thesis. The group collaborates with other research groups within Dementia Genetics Spanish Consortium (DEGESCO) and the European Early-Onset Dementia Consortium (EODC). Dr. Albert Lladó leads this research line.

c) **Healthy aging - Alzheimer's disease continuum**: The study of Alzheimer's disease (AD) in preclinical and prodromal phases is needed for the design of new disease modifying therapeutic strategies. The aim of this research line is i) to characterize, using biochemical, neuroimaging (MRI and positron emission tomography) and cognitive markers, the preclinical and prodromal phases of AD, ii) to define the role of several AD biomarkers (CSF and MRI), as predictors for a deleterious cognitive evolution and progression to AD dementia in subjects at risk for AD and iii) to design and to evaluate new cognitive tools for the detection and monitoring the earliest cognitive changes in AD. Our group has carried out different published studies, 1 PhD thesis and has led or participated in 6 research grants. The group participates in the Subjective Cognitive Decline Initiative (SCDI) Working Group. Dr. Lorena Rami leads this research line.

d) **Rare neurodegenerative dementias**: Frontotemporal lobar degeneration and prion diseases. I) Frontotemporal lobar degeneration our group has participated in several projects and publications in this field and collaborates with other groups both nationally and internationally in the study of this disease. On the other hand, the high genetic load in frontotemporal lobar degeneration links this line of research with our research line a), which focuses on the study of genetically determined dementias. II) Prion diseases and other rapidly progressive dementias (RPD). The Hospital Clínic in Barcelona is the reference center for the biological diagnosis of prion diseases in Catalonia, and includes determination of 14-3-3 protein, RTQuIC, genetic analysis, determination of codon 129 polymorphism and postmortem neuropathological confirmation of disease. The team has carried out different research projects and publications in this field focusing on biochemical markers, magnetic resonance imaging and neuropathological studies in prion diseases and other RPD. Dr. Raquel Sánchez-Valle leads this research line.

e) **Neuropathology of neurodegenerative diseases**: Our group works in close collaboration with the Neurological Tissue Bank (NTB) from the Hospital Clínic-IDIBAPS. The NTB of the Hospital Clínic-IDIBAPS was founded in 1992 and has studied more than 2000 brain samples from patients with neurodegenerative diseases and controls. Dr Raquel Sánchez-Valle is the Clinical co-ordinator of the NTB.
Functions and tasks

To be determined based on the background and interest of the candidate.

Requirements for candidates:

Skills/Qualifications:
- PhD or equivalent (Recognised Researcher R2)
- We welcome postdoctoral researcher with interest in neurodegenerative disorders with different backgrounds: biologists, psychologists, neurologists, neuroimaging analysts, neuropathologists, etc.

Languages:
English: Excellent

Specific Requirements:
- Candidates must fulfilled eligibility MSCA criteria described in the Guide for Applicants

Working conditions:
- Full time temporary contract
- Gross salary of about € 50,000
- Duration: ranging from 12 to 36 months depending on the typology of the fellow
- Starting date: flexible from beginning of May 2021

Support for candidates

The Institute of Neurosciences and the International Research Projects Office at the University of Barcelona could offer you:
- A travel grant to work on your proposal with your future supervisor
- Course on “How to work a successful MSCA IF”
- Personalized support on the application
- Support on other national calls such as Beatriu de Pinós and Junior Leader
- Personalized mentoring

How to apply

Please submit your CV and references to: Dr Raquel Sanchez-Valle
(sanchezdelvalle@ub.edu/ rsanchez@clinic.cat); Reference: MSCA IF Candidate

Deadline: 31/05/2020