

# EADC Resident and Research Fellow Section (RRFS)

## Exchange through internship programs

### Name and location EADC hosting center

Bru-BRAIN, Vrije Universiteit Brussel (VUB) & its university hospital, UZ Brussel

### Link to center's website

<https://www.uzbrussel.be/web/bru-brain>

Websites of NEUR Research Group and the VUB Center for Neurosciences (C4N) are under construction

### PI of the EADC hosting center

Prof. Dr. Sebastiaan Engelborghs, MD, PhD

### Contact person of the EADC hosting center

*Give full coordinates of the person that can be contacted by the RRFS member for additional information*

Dr. Sara De Witte, postdoctoral research manager

E: [Sara.De.Witte@vub.be](mailto:Sara.De.Witte@vub.be)

### Description of the center

*Give a full description of main clinical and research activities*

At VUB and UZ Brussel, patient care and clinical research for neurodegenerative brain diseases that cause dementia, is managed by Sebastiaan Engelborghs.

Three entities contribute to research for neurodegenerative brain diseases at VUB & UZ Brussel:

1. The UZ Brussel Center for Brain and Memory, Bru-BRAIN, that was founded in 2021. Bru-BRAIN is a transdisciplinary memory clinic that implements a multidisciplinary approach using experts from neurology, geriatrics and psychiatry. The clinic aims to give people advice at short notice from different experts, and those experts can also discuss the case together. Depression, for example, is one of the first symptoms of someone struggling with juvenile dementia, this is why it is important to diagnose it across different scientific possibilities. Bru-BRAIN includes a clinical trial unit for people with Alzheimer's disease and related disorders, as well as an ambulatory rehabilitation program for people with early AD.

2. The UZ Brussel department of neurology 'Neurodegenerative brain disorders' is one of the three focus areas of the UZ Brussel neurology department.
3. The VUB research group Neuroprotection & Neuromodulation (NEUR), unites all clinical research at the UZ Brussel departments of neurology, neurosurgery and psychiatry. NEUR forms an IoF-funded consortium with the AIMS research group (lead by Prof. Dr. ir. Guy Nagels), the NEUR-o-AIMS consortium, and belongs to the interfaculty VUB Center for Neurosciences (C4N), of which Sebastiaan Engelborghs is director. Neuromodulation research is led by Prof. Dr. Chris Baeken. Together with neurodegenerative brain disorders that lead to dementia, this is a research spearhead of NEUR and C4N.

## Internship program

*Give a description of the contents of an internship program at the hosting center. If desirable, give separate descriptions for clinicians and for researchers. Indicate the optimal duration of an internship program (preferably max 4 weeks)*

### **For physicians:**

Attendance of consultations in our outpatient memory clinic:

- Monodisciplinary consultations in the depts of neurology, psychiatry and geriatric medicine
- Multidisciplinary consultations neurology, psychiatry and geriatric medicine for selected memory clinic patients

Participation to our weekly multidisciplinary memory clinic meetings: discussion of the diagnostic work-up of memory clinic patients, as well as therapeutic options in case of e.g. refractory mood and behavioral disturbances

Furthermore, RRFs exchanges can assist in:

- Neuropsychological examination
- Lumbar puncture for analysis of core AD CSF biomarkers in the day care unit
- Ambulatory rehabilitation program
- Clinical trial unit
- Neuromodulation program: electroconvulsive therapy (ECT) for major depressive disorder

### **For researchers:**

Researchers can assist in the clinical program, but are encouraged to assist in one of the research lines, preferably in scientific collaboration with the own center.

An overview of research lines will be given through the NEUR website (under construction), but consists of different research lines in the domain of early and differential diagnosis of Alzheimer's disease and related disorders, including neuro-imaging, as well as different

research lines concerning neuromodulation as a therapeutic option in neurodegenerative brain diseases and mood disorders.

Optimal duration: 2 weeks (clinical) or 4 weeks (if participation to research is desirable)