

**Title****Bacteriophages as a smart tool to tackle Alzheimer's Disease**

Amyloid-beta (AB) is a prime suspect to cause Alzheimer's disease (AD), an irreversible, progressive and age-dependent neurodegenerative disorder affecting millions of people worldwide. An accumulation of AB in the brain leads to its aggregation into soluble oligomeric and fibrillar clusters, which are the culprits to impair synaptic function and memory formation in mice models.

Currently, we lack diagnostic tools to detect AB oligomers/fibrils in the brain, and the ones used provide a late diagnosis. In order to overcome the blood-brain-barrier (BBB), we used bacteriophages (phages) and phage display technology, to develop a phage-based tool for AD early diagnosis.

In this seminar an overview of this work and the latest results will be presented.

**Biosketch**

Dr. Ivone M. Martins is a Faculty Researcher at the Centre of Biological Engineering - University of Minho. She graduated in Biotechnological Engineering and obtained the Ph.D. in Molecular Microbiology and Genetics at the University of Salamanca. Her main research area is Health Biotechnology and Bioengineering, in particular the use of Bacteriophages and Phage Display Technology. Her research work is focused on the discovery of novel disease-related biomarkers and the development of bacteriophages-based tools for diagnosis and therapeutics.

**Link**

<https://www.ceb.uminho.pt/People/Details/e52eed9c-d52e-4521-b802-33ad1c8ac7d2>