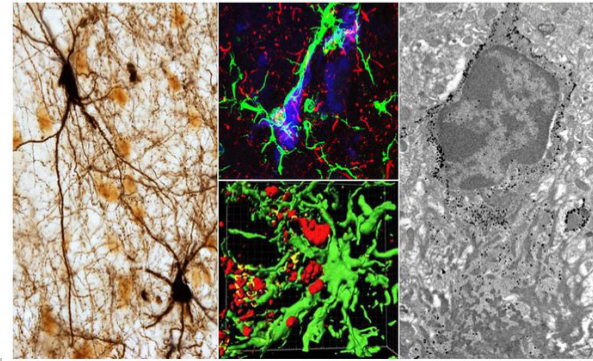



**NEUROAD**  
CTS 950

*ciberNed*


## NEUROPATHOLOGY OF ALZHEIMER'S DISEASE



### INTRODUCTION

This research group focuses on deciphering the cellular and molecular mechanisms involved in Alzheimer's disease. The main objectives are 1) to understand the pathogenic mechanisms involved in synaptic and neuronal loss, with special interest in dissecting the role of the neuroinflammatory response (microglial and astroglial activation) in the development/progression of the disease; 2) identify biomarkers and therapeutic targets of clinical interest; and 3) evaluate the efficacy of potential treatments at the preclinical level. The group has an extensive experience in transgenic models, memory and learning tests, and neuroanatomy. In addition, the group is developing cellular models from iPSCs derived from Alzheimer's patients. The group has established numerous collaborations with national and international research groups and collaborations with pharmaceutical companies for the identification of biomarkers of the disease and the evaluation of potential drugs against Alzheimer's. This research group belongs to the Biomedical Research Institute of Malaga (IBIMA) and the Network Center for Biomedical Research in Neurodegenerative Diseases (CIBERNED).

### RESEARCH TOPICS

- Neuroinflammation and neurodegeneration in Alzheimer's disease.
- Identification of therapeutic targets for Alzheimer's disease.
- Neuropathological biomarkers of clinical interest for Alzheimer's disease.
- Transgenic models for the study of Alzheimer's pathogenic mechanisms.

### SCIENTIFIC-TECHNICAL SERVICES

- Study and evaluation of neuroprotective drugs.
- Neuropathological markers in animal models and postmortem human samples.
- Behavioural tests in animal models for memory and learning assesment.
- Ultrastructural analysis by transmission electron microscopy and immunogold labelling.
- Immunolabelling studies at light and confocal microscopy.
- Morphometric measurements by image analysis and stereological cell counting.
- Intracerebral stereotaxic injections in animal models.

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