AIM OF THE PROJECT

Aim of the project is to better understand the role of a crucial protein involved in a well known disease that affect thousands of people in the world such as Alzheimer´s disease is. The protein in question is called Amyloid Precursor Protein (APP).

The main question I want to addres is whether this protein is able to influence the activity and the structure of the neurons.

Neurons are the main entities responsible of the function of our brain.

Every emotion, every flavour, every color, every surface is what we feel, we taste, see or touch thanks to our neurons. They comunicate among them, they can change shape, be silent or active.

And every disorder that affects our brain is, in detail, affecting these entities: the neurons.

I am planning to study the neuronal activity throughout little window placed on the brain of mice that have or not the protein in question (APP). In this way is possible, thanks to the use of microscopes, to study if this protein is able to modify the structure and the activity of neurons while the animal is still alive and awake.

With this work i want to give my contribution to better understand such a worldwide disease as Alzheimer´s diseas.

Understanding the inner mechanisms that are behind any kind of disorder is the first step towards its future treatment.