Laboratory title : INRA UMR 1286 - Sophie Layé

Supervisor

Name : Sophie LAYE

Thesis title :

N-3 polyunsaturated fatty acid and vulnerability to neuropsychiatric disorders: role of neuroinflammation

Keywords : brain, microglia, neuronal plasticity, omega3, depression

Contact

Firstname : Sophie

Name : LAYÉ

E-mail : sophie.laye@bordeaux.inra.fr

phone number : 0557579218

Fax :

Abstract

Recent data revealed the key role dietary n-3 polyunsaturated fatty acid (PUFA) on the development of depression. However, the pathways through which the consumption of n-3 PUFA diet actually protects from the development of depression are still not clear. The goal of the present proposal is to unravel the mechanisms linking dietary n-3 PUFAs and emotional behavior in a mouse model of depression. We will focus on microglia cells and inflammatory and neurotrophic factors. The aim of this project is to establish a link between neuroinflammation, synaptic plasticity and emotional disturbance in n-3 PUFA fed mice. These results will help to understand the mechanisms involved in n-3 PUFA and depression. In addition, it will help to identify nutritional and/or pharmacological strategies for preventing mood disorders in vulnerable subjects. This highly integrative project requires the use of multidisciplinary cutting edge technical approaches (cellular and molecular biology, behavior, and microscopy).

Qualification required

Neurobiology, molecular and cellular biology, behavior, integrative neurobiology