



# GUT MICROBIOTA COMPOSITION FOR THE PREVENTION AND/OR TREATMENT OF COGNITIVE DISORDERS

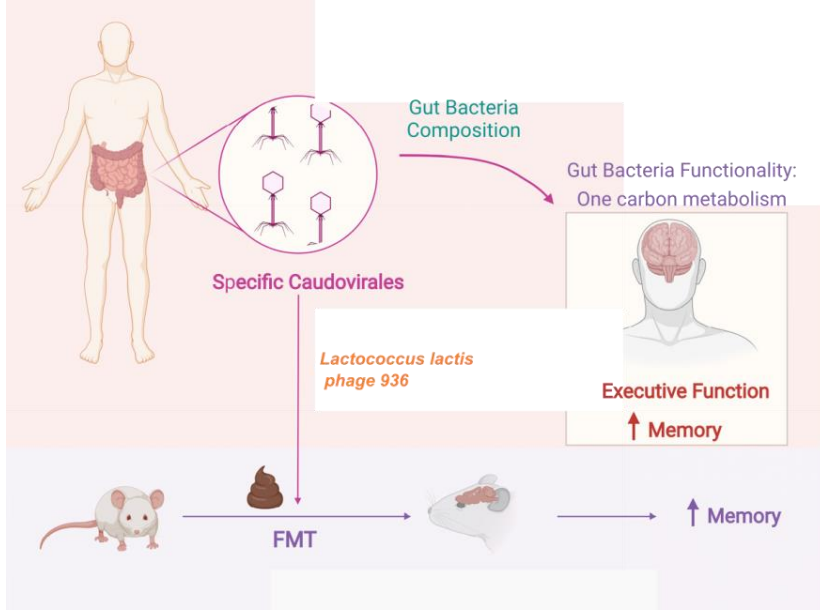


## Description

There is an emerging and consistent link between the gut microbiota (the billions of bacteria living in the intestine) and different health conditions, weight gain, exercise, sleep, skin appearance and many other correlations being investigated, including the mental health

The decline of neurocognitive function is currently among the greatest health concerns of old age. There is preliminary evidence that some bacteria species live within the human brain.

Related to this, recent evidence in mice shows a potential link between the gut microbiota and the brain. The gut microbiota is increasingly recognized to be associated with cognitive traits and memory. Further, the same agents that have shown to delay or prevent cognitive impairment (weight loss, antidiabetic drugs) are well known to cause microbiota shifts.



Researchers from the Fundacion para el Fomento de la Investigación Sanitaria y Biomédica de la Comunitat Valenciana (Fisabio), Universitat de València, Universitat de Girona, Intitut d'Investigació Biomèdica de Girona, Universitat Pompeu Fabra, CIBEREsp have patented a gut microbiota composition comprising a wide range of species of genus with a vast array of applications for use in the specific prevention and/or treatment of a mental disorder with memory impairment in a subject:

- In which said memory impairment is an impairment in verbal memory, in immediate memory, in non-spatial memory, or in the memory function.
- In which said mental disorder with memory impairment is Parkinson's disease, Alzheimer's disease or dementia.
- In which said composition is presented in the form of a pill, tablet, a capsule, solution, suspension, syrup, or a food containing the probiotic bacteria, and the form of administration of said microbiota composition.

*Experimental procedure, metagenome construction step and metagenomic library construction step for sequencing the stool microbiome, including Lactococcus lactis phage 936. Scheme of action of the intestinal microbiome Lactococcus lactis phage 936 in a cognitive process.*

## Technical Advantages

The bacterial species disclosed for the use of the present invention have not been identified in the art for the prevention or treatment of a mental disorder with memory impairment. The composition for use protected in this patent represent one of the first, as no suggestion has been given about the use of a microbiota composition capable for reaching a relative proportion of the different species of bacteria in the intestine of a subject that could be of benefit for the prevention and/or treatment mental disorder. The result protected by this patent highlight the potential therapeutic value of targeting the gut microbiota for memory impairment, specifically in subjects with obesity.

## State of development and Industrial Property Rights

Pre-clinical studies have been performed.

A European patent has been filed with application number EP20382592 and priority date July 1st 2020.