DIAGNOSIS AND/OR PROGNOSIS METHOD FOR ALZHEIMER DISEASE

DESCRIPTION OF THE INVENTION

Alzheimer disease (AD) is the most common form of dementia among elderly population. However, there are still no biochemical markers to distinguish AD from other types of dementia. The reliability of clinical diagnosis is around 80%, and a final diagnosis can only be made after histopathological examination by means of a brain biopsy or autopsy. Therefore, early detection of this type of dementia is, at least for now, impossible.

The possibility of presenilin 1 (PS1), an active compound in the γ-secretase complex involved in the development and progress of Alzheimer disease, being present in soluble form, and therefore being measurable in cerebrospinal fluid (CSF), had not been explored yet. Notwithstanding this, our experience in the last few years with the study of PS1 made us consider the possibility of PS1 being detectable in CSF, and so we proved that this transmembrane protein forms complexes in the soluble form.

This invention is based upon the determination of PS1 heteromeric complexes comprising C-terminal and N-terminal fragments for the diagnosis and/or prognosis of Alzheimer Disease (AD), and therefore is an alternative method for the diagnosis and/or prognosis of AD based upon the use of said heterometric compound.

BUSINESS FIELDS OF APPLICATION

This technology can be used for early diagnosis of Alzheimer disease, which is of great interest among the Health Care sector. Its target market would be basic research, Hospitals and Health Care Authorities. It can also be interesting for the pharmaceutical industry sector, since this technology could be used to monitor and follow up Alzheimer disease treatments and therapies.

TECHNICAL AND BUSINESS ADVANTAGES

Besides its applications for early diagnosis and in combination with other markers, the invention will most probably be of great interest for monitoring the progression of the disease and using it in therapy prognosis. In this respect, it is key to highlight how important it is that some of the compounds now under development are γ-secretase activity inhibitors, since it can be very interesting to calculate PS1 levels in patients' CSL in clinical trials with these and other drugs.

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DEVELOPMENT STAGE OF THE TECHNOLOGY

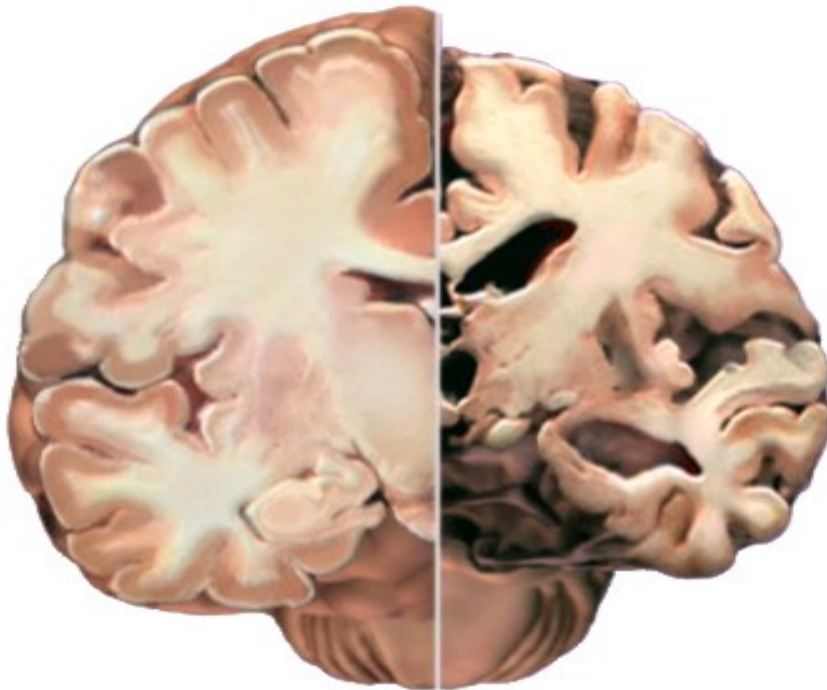The technology is pending validation and item testing for subsequent marketing.

INDUSTRIAL PROPERTY RIGHTS

Protected by a patent in Spain, and currently undergoing PCT procedure.

TYPE OF COLLABORATION SEEKED

License agreement with companies wishing to market the technology

RELATED PICTURES

CONTACT DETAILS

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