Summary

The Institute Ramón y Cajal for Health Research (IRYCIS) has developed a new patented method to identify good responders to Interferon beta (INF-beta) therapy in multiple sclerosis before treatment initiation.

The prognostic test is based on cellular characterization of T and B lymphocytes and Natural Killer cells based on flow cytometry.

Description

Multiple sclerosis (MS) is an inflammatory disease in which the myelin of nerve cells in the brain and spinal cord are damaged.

This damage disrupts the ability of parts of the nervous system to communicate, resulting in a wide range of signs and symptoms, including physical, mental, and sometimes psychiatric problems.

Currently there are many options for MS treatment, however is impossible to predict how each patient will respond to them.

This prognostic method allows to predict the response to INF-beta by testing a sample of peripheral blood in the patient.

The flow-cytometric characterization of T and B lymphocytes and Natural Killer cells according to the presence of different surface markers, determines when a subject is good responder or not before treatment initiation.

Advantages and innovations

Easy, reliable and non-invasive in vitro method for identification of Multiple Sclerosis patients free of disease activity if treated with INF-beta.

The developed technology can be commercialized as a prognostic service or as a cell characterization kit.

Stage of development

Platform ready for its use in R&D projects.

The panel of biomarkers for cell characterization was pre-validated in a clinical study (119 patients undergoing INF-beta treatment).

Additional biomarkers for prediction of response in other treatments for MS are under development.

Intellectual Property Rights

Patent application: P201431314.
Priority date: Sep 11, 2014

Ownership: 100% Biomedical Research Foundation Ramon y Cajal University Hospital - FiBioHRC

Contact

Diego Velasco – tel. +34 913369132
eMail: dvelasco@salud.madrid.org
www.irycis.org