Home Press Releases Events Submit a Release Register E-mail Alert Search Archives FAQs Terms & Conditions Contact us

Related services



Search

Releases from the last 5

::: Print article :: All releases

GRANADA UNIVERSITY RESEARCHERS INVESTIGATE THE PROTEIN MECHANISMS THAT CAUSE NEURODEGENERATIVE DISEASES

2006-05-09

CORDIS Wire

Programa de Divulgacion Científica de Andalucia Parque de las Ciencias Avda del Medi

igaona@andaluciain

www.andaluciain

The Granada scientists are collaborating with seven European laboratories, dedicated to researching the comm characteristics that will make it possible to establish a general amyloid fibre formation mechanism.

Login



Scientists in Granada University's Physical Chemistry Department are investigating, using a model protein, the bases that give rise to the formation of "amyloid fibres", which cause certain degenerative diseases of the nerv system, such as Alzheimer's Disease, Parkinson's Disease, or "mad cow's disease", both in animals and in hum as other non-neurological conditions, such type II Diabetes, or certain disorders associated with haemodialysis characteristic of these illnesses is the uncontrolled formation of protein deposits in the form of amyloid fibres, i and organs, which alter their functions

Francisco Conejero Lara, researcher in charge of the project, explains that the more knowledge that can be obt the mechanism and characteristics of the formation process of these fibres, the earlier action can be taken aga through drugs that prevent or delay fibre deposit. In this way it will be possible to prevent or reduce the dama process causes in the affected organs.

A number of different factors, many still unidentified, favour abnormal protein folding, which results in a config determines and initiates the formation of amyloid fibres. In the intermediate stages of the process, extremely " structures are formed, which, according to the researcher, are the precursors of these protein "aggregates".

In the aforementioned illnesses it has been observed that regardless of the protein responsible, all of them dep themselves forming a common structure, which consists in an enormous "? lamina" that extends without inter along the fibre. Furthermore, according to the scientists, very different proteins, even some totally unrelated to amyloidosis type illnesses, can form the same fibres with the same appearance - under microscope subjected to the appropriate conditions.

The Granada researchers are working with an SH3 domain. This is a protein fragment that, despite not being a with the formation of deposits in degenerative diseases, is susceptible to form these fibres. Based on "in vitro" experiments, the scientists are studying what molecular bases generate abnormal protein folding. For this purp are focussing on establishing the characteristics of stability, structure and factors (kinetic and thermodynamic) precursors of amyloid fibre formation in the SH3 domain.

The Granada scientists are collaborating with seven European laboratories, dedicated to researching the comme characteristics that will make it possible to establish a general amyloid fibre formation mechanism.

Subject: Life Science; Country: SPAIN; Institution: Public Research; Category: Project;

Тор

CORDIS Services Help I

http://cordis.europa.eu/wire/index.cfm?fuseaction=article.Detail&rcn=7491

17/05/2006