JPND research
EU Joint Programme – Neurodegenerative Disease Research

REfrAME

Pathway complexities of protein misfolding in neurodegenerative diseases: a novel approach to risk evaluation and model development

Neurodegenerative disorders, including Alzheimer's disease, Parkinson's disease, frontotemporal dementias and prion diseases affect ~50 million people worldwide. Alzheimer's disease, the most prevalent form, affects ~6% of the population over 65 years of age and is one of the leading causes of death in the elderly. All these diseases have devastating effects on patients and their families, and their economic burden is massive. Unfortunately, there is no cure for any of them due mainly to the lack of knowledge around their pathological mechanisms. Moreover, recent scientific results have shown the existence of a certain degree of heterogeneity of symptoms and pathological features within each disorder, and this aspect seems to be at the basis of the failure to develop a successful therapy for every form.

Our project aims to tackle this issue by trying to understand the molecular bases of this heterogeneity and, if successful, may have an important social impact for its potential diagnostic and therapeutic implications. Indeed, the results of our studies may offer a major breakthrough in understanding the pathogenesis of degenerative disorders and may lead to the design of more appropriate therapies based on a deeper characterization of the subtypes of these disorders.

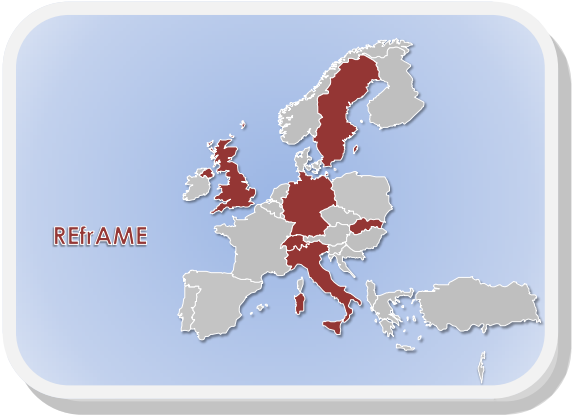
Start Date: May 2016

Duration: 3 years

Coordinator: Giuseppe Legname

E: legname@sissa.it

W: http://lpb.sissa.it/



Project Partners:

COORDINATOR I GIUSEPPE LEGNAME

Giuseppe Legname, SISSA, Trieste, Italy

Giuseppe Di Fede, IRCCS Foundation Carlo Besta Neurological Institute, Milan, Italy

Mathias Jucker, German Center for Neurodegenerative Diseases, Tübingen, Germany

Michel Goedert, MRC Laboratory of Molecular Biology, Cambridge, UK

Jia-Yi Li, Lund University, Sweden

Adriano Aguzzi, University of Zurich, Switzerland

Michal Novak, Slovak Academy of Sciences, Bratislava, Slovakia