Título del Proyecto	Molecular links between diabetes and neurodegenerative disorders				
Nº de expediente asignado	PIE14/00061				
Abstract	Alzheimer's disease, Parkinson's disease, sporadic inclusion body myositis, Lafora disease, and Gaucher disease are age-related degenerative diseases increasing in worldwide prevalence due to population ageing, improved diagnostic and changes in lifestyle. Substantial epidemiological evidence and data from animal models show comorbidity among these diseases and type-2 diabetes. However, the underlying biological mechanisms that link the development of (neuro)degeneration and metabolic disturbances are not fully understood. Aberrant protein processing and accumulation in pancreatic islets, brain cells and/or skeletal muscle, abnormalities in insulin signaling, deregulated glucose metabolism, mitochondrial dysfunction and increased oxidative stress, the formation of advanced glycation end products, and the activation of inflammatory pathways are features common to most of these diseases. In this proposal, we have put together a consortium of research groups with leading expertise in relevant clinical, basic, and applied aspects of diabetes and highly-prevalent and rare neurodegenerative diseases, as well as in the development of advanced platforms for human disease modeling, early diagnosis and treatment. Our combined effort will allow the systematic interrogation of genuinely-humandisease models to identify interacting pathogenic mechanisms linking diabetes and neurodegeneration, which will be further used as targets for novel therapeutic strategies and early diagnosis devices.				
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Importe de la ayuda	660.000€				

