JPND research
EU Joint Programme – Neurodegenerative Disease Research

SNOWBALL

The interplay of amyloid and ischemia and their influence on the blood-brain barrier, amyloid transportation systems and neurodegeneration in cerebral amyloid angiopathy (CAA)

Several studies have shown that ischemic stroke, a result of an occluded vessel in the brain, could be followed by cognitive decline and, after several strokes, lead to dementia, similar to Alzheimer's disease but with a different clinical presentation, especially in the beginning. We believe that there is cross-talk between vessel occlusion and amyloid deposition in the brain and that the most important diseases of cognitive decline in the elderly – Alzheimer's disease and vascular dementia – interact with each other in a snowball-like manner.

By using models of cerebral amyloid angiopathy – a disease with both amyloid deposition and vascular disturbances – we study the blood-brain barrier, inflammation and neurodegeneration in the brain. Through a multidisciplinary cross-disease analysis combining pharmacologic biotechnologists, radiopharmacologists, blood-brain barrier-, imaging-, biomarker-, Alzheimer's disease and stroke experts, we will offer a novel perception of neurodegeneration . This will be undertaken by exploiting the excellent ongoing collaboration between partners of a project funded by the European Union. We expect to find relevant key players and concepts regarding the question of how dementia is influenced by stroke and the other way round. This will lead to a new approach in the diagnosis and therapy of dementia in the elderly, especially in patients with concomitant stroke.

Start Date: April 2016

Duration: 3 years

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W: coming soon

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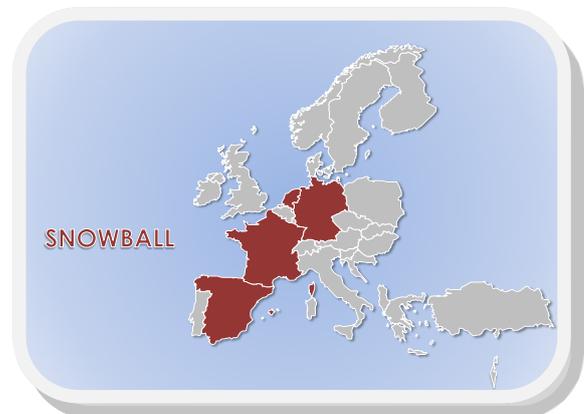
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