



Research Project Proposal
Academic year 2017-2018

Project Nº 34
Title: Resting state brain networks in mild cognitive impairment.
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Summary <p>Amnesic mild cognitive impairment (MCI) is a clinical stage characterized by memory impairment, without significant repercussions in daily life activities, that is considered a high-risk condition for the development of clinically probable AD. This prodromal phase offers an opportunity for early therapeutic interventions aiming to alter the course of the disease.</p> <p>Arterial Spin Labeling (ASL) perfusion MRI is a neuroimaging technique that offers the unique possibility of measuring cerebral blood flow (CBF) and functional connectivity using data acquired in a single scan.</p> <p>The goal of this project is to assess perfusion data acquired in a group of MCI patients to evaluate coherent large-scale brain networks and compare them with those obtained in a group of healthy control subjects, to determine whether functional connectivity of the brain at rest is altered in MCI.</p> <p>This technique could provide an early biomarker for the diagnosis of MCI.</p> References <p>Balthazar et al., Whole cortical and default mode network mean functional connectivity as potential biomarkers for mild Alzheimer's disease. <i>Psychiatry Research: Neuroimaging</i> 221:37-42 (2014).</p>