Early detection of psychosis based on cerebral and peripheral biomarkers of oxidative stress: a longitudinal multimodal study in adolescents

There is a strong need to develop new tools for the identification of patients at risk of developing psychosis. Alterations of gross brain anatomy are relatively late events but early and subtle neurochemical changes and especially those reflecting oxidative stress and concomitant synaptic remodeling are promising candidates. During this 4-year project, I will focus on these early neurochemical changes (i) in the brain itself, using a new whole-brain magnetic resonance spectroscopy imaging technic, (ii) in periphery, based on blood markers of oxidative stress and inflammation. The aim is to improve the identification of adolescents who will develop a first episode psychosis and eventually schizophrenia, a step that is necessary for the development of early and specific interventions.

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