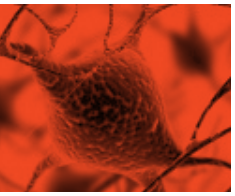

SUCCESSFUL**PROJECTS**

TRANSALC \\ TRANSLATIONAL NEUROIMAGING IN ALCOHOLISM: IDENTIFICATION OF ALTERED BRAIN CONNECTIVITY AND TREATMENT EFFICACY PREDICTORS

Austria\ Canada \ Finland \ France \ Germany \ Italy \ Israel \ Luxemburg \ Poland \ Romania \ Spain

Alcohol addiction or alcoholism is estimated to affect 23 million Europeans (5% of men, 1 % of women) in any given year, making it probably the most prevalent neuropsychiatric disorder afflicting our society today. This disorder can best be defined as a pathological behavioural syndrome, characterised by compulsive drug seeking (craving) with repeated relapses into heavy drinking. These events may occur even after long periods of abstinence, in spite of obviously disastrous consequences for the individual concerned, including fatality. Available medications for relapse prevention do not meet the extensive clinical needs.

Promising new molecular targets have been put forward by animal models, but several clinical trials aimed to exploit this potential have fallen short to expectations. One strategy to improve the predictive validity of animal tests is to use translational biomarkers, i.e. disease-related responses that are largely homologous between humans and animals. TRANSALC aims to identify brain responses to pharmacotherapy that are comparable between patients and animal models of alcoholism by employing cutting-edge magnetic resonance imaging (MRI) techniques for investigation of morphological and functional connectivity in the living brain.

We put together an international consortium with highly complementary expertise in the fields of alcoholism and neuroimaging seeking to reveal alcoholism-specific connectivity maps and knowledge about their modification by clinical reference compounds in humans and animals. Based on this information, we expect to better predict the effects of experimental drugs proposed for treatment of alcoholism in human patients.

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