

Project title: Inflammation and depression: a multidisciplinary approach to dissect pathogenetic mechanisms in the onset, comorbidity and treatment response	
Project ID PNRR-MAD-2022-12375859	
CUP: C83C22001310001	
Description: (1500 caratteri spazi inclusi)	
<p>Major Depressive Disorder (MDD) represents a significant public health challenge: approximately one-third of patients do not respond to treatment, and many experience relapse. Inflammation plays a pivotal role in the onset and progression of the disorder, increasing the risk of comorbidities such as cardiovascular and metabolic diseases.</p> <p>This project, funded by the Italian Ministry of Health under the PNRR program (M6/C2_CALL 2022; Code: PNRR-MAD-2022-12375859), aims to elucidate the relationship between inflammation and depression by investigating: i) the processes leading to disease onset in relation to environmental factors; ii) the mechanisms underlying treatment response and resistance; and iii) the role of inflammation in the development of comorbidities.</p> <p>To achieve these objectives, we will integrate biochemical, transcriptomic, and genetic analyses, pharmacokinetic studies, and machine learning approaches across multiple patient cohorts. In parallel, in vitro cellular models (neurons and astrocytes in particular) will be employed to dissect the underlying biological processes and evaluate potential preventive strategies.</p> <p>Through this multidisciplinary and translational approach, this two-year project will generate novel insights into the role of inflammation in depression and its comorbidities, providing a foundation for the development of innovative therapeutic targets and personalized intervention strategies.</p>	
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IRCCS Role Coordinator/ Partner Coordinator	
Principal investigator: Prof. Cattaneo Annamaria	
UO 1: IRCCS Istituto Centro S. Giovanni di Dio Fatebenefratelli, Brescia	Scientific Coordinator: Prof. Cattaneo Annamaria
UO 2: IRCCS Ospedale San Raffaele, Milano	Scientific Coordinator: Prof. Benedetti Francesco
UO 3: Istituto Neurologico Mediterraneo Neuromed, NEUROMED, Pozzilli	Scientific Coordinator: Prof. Gialluisi Alessandro
UO 4: AOU Policlinico G. Martino, Messina	Scientific Coordinator: Prof. Spina Edoardo
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