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Neurobiological mechanisms of social stress

Social stress is one of the most intense, ethologically relevant types of stressor and it is a highly prevalent traumatic experience, present in multiple contexts, such as war, bullying and interpersonal violence. Traumatic events with a social origin have been linked with increased risk for major depressive disorder and anxiety disorders. Although much progress has been made to uncover the brain circuitry of social stress effects consequences, there are significant gaps in our knowledge which pre-clinical can be valuable to bridge. In the lab, we have developed two novel social stress protocols that can be used to study the implicated brain circuitry alterations and plasticity. Using these behavioral protocols and techniques such as optogenetics, chemogenetics and whole cell patch clamp recordings, we aim to understand the neurobiological mechanisms of social stress and how to alleviate its detrimental effects.