**Abstract (250 words)**

Cannabidiol (CBD) is globally perceived as safe and free of harmful side effects, and its use has been on the rise in all populations, including pregnant women. CBD exerts its molecular and behavioral effects through various molecular targets, including the activation of Wnt/β-catenin signaling. β-catenin dysfunction has been implicated in several neuropsychiatric disorders and it is a critical regulator of a network that includes downstream microRNAs (miRNAs). While miRNAs are also critically involved in the development and progression of various neuropsychiatric conditions, many miRNAs appear to play beneficial rather than pathologic roles in settings of disease. As such, the activation or silencing of specific miRNAs may be ideally suited to reversing prenatal CBD exposure-induced alterations in cognitive and emotional function.

Our main study objective is to better clarify the pathological mechanisms underlying the effects of prenatal CBD exposure while also supporting the development of innovative preventive strategies. Specifically, we will 1) offer insight into the potential therapeutic utility of the targeted activation or silencing of specific miRNAs as an approach to restoring memory and alleviating emotional deficits, 2) better define the roles that β-catenin and miRNAs play in the context of prenatal CBD exposure in males and females’ progeny, and 3) help inform clinical recommendations for pregnant women seeking symptom relief. These efforts will challenge the view that CBD is a universally safe compound and will encourage further study of the developmental consequences of prenatal CBD exposure, associated underlying mechanisms, and potential treatments for prenatal CBD-exposed individuals.