MODULATION OF BREAST CANCER PROPERTIES BY TCA-DERIVED METABOLITES

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ABSTRACT

Breast cancer (BC) is a heterogenous disease characterized by diverse morphology, biologic behaviour, clinical progression and prognosis. It is the most diagnosed cancer and the leading cause of cancer-related death among women worldwide. A TCA-derived metabolite accumulation, both intracellular and extracellularly, has been associated with pro-tumorigenic effects through multiple mechanisms including its interaction with its cognate receptor. However, the specific role of the TCA-derived metabolite-receptor axis in BC remains poorly understood. The hypothesis of this project is that this interaction is involved in BC development and progression. To assess this, we employed complementary *in vitro* and *in vivo* approaches to gain a global perspective of the axis involvement in BC. Overall, we determined that the TCA-metabolite-receptor axis may be involved in BC.