## Analysis of Relative Gene Expression Data of GATA3-AS1 Associated with Resistance to Neoadjuvant Chemotherapy in Locally Advanced Breast Cancer Patients of Luminal B Subtype

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Abstract : The goal of this study is to validate the overexpression of the lncRNA GATA3-AS1 associated with resistance to neoadjuvant chemotherapy of female patients with locally advanced mammary adenocarcinoma of luminal B subtype This study involved a cohort of one hundred thirty-seven samples for which total RNA was isolated from formalin fixed paraffin embedded (FFPE) tissue. Samples were cut using a Microtome Hyrax M25 Zeiss and RNA was isolated using the RNeasy FFPE kit and a deparaffinization solution, the next step consisted in the analysis of RNA concentration and quality, then 18  $\mu$ g of RNA was treated with DNase I, and cDNA was synthesized from 50 ng total RNA, finally real-time PCR was performed with SYBR Green/ROX qPCR Master Mix in order to determined relative gene expression using RPS28 as a housekeeping gene to normalize in a fold calculation  $\Delta$ Ct. As a result, we validated by real-time PCR that the overexpression of the lncRNA GATA3-AS1 is associated with resistance to neoadjuvant chemotherapy in locally advanced breast cancer patients of luminal B subtype.

1

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