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**LOC285629 Regulates Cell Proliferation and Motility in Colorectal Cancer Cells**

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**ABSTRACT**

Colorectal cancer (CRC) is one of the most widely diagnosed cancer in men and women worldwide. With the advancement of next generation sequencing technologies, many studies have highlighted the involvement of long non-coding RNAs (lncRNAs) in cancer development. Growing evidence demonstrates that lncRNAs play crucial roles in regulating gene and protein expression and are involved in various cancers, including CRC. The field of lncRNAs is still relatively new and many novel lncRNAs have been discovered but their functional roles are yet to be elucidated. This study aims to characterize the expression and functional roles of a novel lncRNA, LOC285629, in CRC. Via in silico analyses, we identified significant downregulation of LOC285629, across all stages of CRC. LOC285629 expression was significantly downregulated in advanced stages (Stage III and IV) compared to Stage I (Kruskal-Wallis Test; p = 0.0093). Further in-house validation showed that the expression of LOC285629 was upregulated in colorectal cancer tissues and cell lines compared to the normal counterparts, but was downregulated in advanced stages. By targeting LOC285629, the viability, proliferative abilities, invasiveness and resistance of colorectal cancer cells towards 5-fluorouracil were reduced. It was also discovered that LOC285629 may regulate cancer progression by targeting several different proteins, namely survivin, BCL-xL, progranulin, PDGF-AA, enolase 2 and p70S6K. Our findings suggest that LOC285629 may be further developed as a potential therapeutic target for CRC treatment.