## **ABSTRACT**

Non-coding RNAs, which made up 98% of the human genome, have immense regulatory influence in cellular functionality that have not yet been fully explored. A study conducted by Prof. Vinay Tergaongkar's laboratory identified an important lncRNA, loc which deregulates NFkB biology in cancer by sustaining covalent modification of p65, thereby regulating genome-wide occupancy of p65 on targets essential to inflammation, cancer progression, and CSC maintenance.

HCC made up 90% of the primary liver cancer cases, and its progression and malignancy revolve around the CSC model. Being attributed to various inflammatory etiologies, dysregulation of NFkB is a major hallmark to its development. This study explores the breadth of loc influence on NFkB signaling in HCC by analyzing its impact of NFkB's target gene expression, resulting stemness phenotype alterations, and drug resistance.