S59-7 Analysis of mammalian nuclear noncoding RNA, MALAT1

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MALAT-1 (Metastasis Associated Lung Adenocarcinoma Transcript-1), originally identified as a significantly expressed transcript in individuals exhibiting a high risk for metastasis of non-small cell lung tumor, is ~8500bp length mammalian non-coding transcript localized to the nuclear speckles. We have demonstrated that MALAT1 facilitates cell motility through the enhancement of gene expressions of motility-associated genes. We also have shown that nuclear speckles localization plays important roles for MALAT1-mediated regulation of gene expressions. As an abnormal expression of MALAT1 results in increasing the risk of metastasis development, regulation of expression of MALAT1 is the important issue. In order to know the regulation of MALAT1 expression, we have investigated the factor contributes in stability of MALAT1 in vivo and found that PARN, a nuclear deadenylase, participates in degradation of MALAT1.