



A MECHANISM FOR TARGETED CHANGE

The lncRNA searches for a messenger RNA (mRNA) with a homologous sequence that is being actively transcribed by an RNA polymerase. When it finds a match, the lncRNA deposits its methyltransferases. The enzymes can add methyl groups to either the DNA strand or to the nearby histone tail. Once modified, the gene becomes tightly bound by histones and inaccessible to transcription machinery, essentially silencing that gene's expression.