



**Figure 1.** Models of how lncRNAs may function in the epigenetic control of gene expression, both activating and repressing transcription *in cis* and *in trans*. (A) Enhancer RNAs have been shown to play an RNA-mediated role in forming enhancer interactions resulting in long-range *cis* gene regulation by lncRNAs. (B) Activation by the JPX lncRNA as an example of a *trans*-acting lncRNA, which in this case facilitates Xist activation. (C) Xist as an example of an lncRNA that facilitates gene repression *in cis* across the majority of the X chromosome. (D) HOTAIR expression results *in trans* repression of HOX genes.