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## **Discovery and functional analysis of lncRNAs: methodologies to investigate an uncharacterized transcriptome**

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### **Abstract**

It is known that more than 70% of mammalian genomes are transcribed, yet the vast majority of transcripts do not code for proteins. Are these noncoding transcripts merely transcriptional noise, or do they serve a biological purpose? Recent developments in genomic analysis technologies, especially sequencing methods, have allowed researchers to create a large atlas of transcriptomes, study subcellular localization, and investigate potential interactions with proteins for a growing number of transcripts. Here, we review the current methodologies available for discovering and investigating functions of long noncoding RNAs (lncRNAs), which require a wide variety of applications to study their potential biological roles.

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