# Séminaire de l’unité de recherche de l’institut du thorax

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**Enhancer-associated long noncoding RNAs**

**in cardiac development and disease**

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Abstract

The molecular and cellular mechanisms underpinning cardiac development and the response of the heart to stress are under the control of integrated transcriptional programs, which are ultimately dependent on epigenomic reprogramming and reorganization of the genome nuclear architecture. Regulatory noncoding RNAs play fundamental roles in these aspects of gene regulatory network activity. In particular, thousands of long noncoding (lnc)RNAs are dynamically expressed across the entire genome during lineage-specific commitment, specialization and differentiation as well as during the cellular response to environmental cues. We propose that characterizing and manipulating a unique class of lncRNA emerging from enhancer sequences provides a novel approach to control cardiac cell identity and behavior. Ultimately, this could lead to targeted noncoding RNA-based enhancer therapies for heart disease.