



Seminar
Tuesday October 30th | 11.00 am
Salle Hermann,
Faculté de Médecine Rockefeller, Lyon

<https://lyon-est.univ-lyon1.fr/campus/plan-du-campus/plan-du-campus-826251.kjsp?RH=LYONEST>

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"Functional investigation of LncRNAs and enhancers in skeletal muscle stem cells"

Abstract

Previously, the majority of the human genome was thought to be "junk" DNA with no functional purpose. Over the past decade, evidence from numerous high-throughput genomic platforms reveals that even though <2% of the mammalian genome encodes proteins, a significant fraction can be transcribed into different complex families of non-coding RNAs (ncRNAs). Growing evidence supports that ncRNAs have fundamental roles as regulators of genomic output. Among various types of ncRNAs, microRNAs have dominated the current literature. Other groups, however, such as long ncRNAs (lncRNAs, >200nt), have been largely under explored.

Huating Wang's lab is currently interested in studying the functional roles of long non-coding RNAs (lncRNAs and enhancers) in regulating gene expression in skeletal muscle stem cells and muscle regeneration.

If you wish to meet Huating, please contact Bénédicte Chazaud (benedicte.chazaud@inserm.fr).

Selected recent publications:

- Yao M, ..., Wang H & Yao H. PCGF5 is required for neural differentiation of embryonic stem cells. **Nat Commun.** (2018) 9:1463.
- An Y, ..., Wang H & Wu Z. A Molecular Switch Regulating Cell Fate Choice between Muscle Progenitor Cells and Brown Adipocytes. **Dev Cell.** (2017) 41:382-91.
- Peng X, ..., Wang H. MyoD- and FoxO3-mediated hotspot interaction orchestrates super-enhancer activity during myogenic differentiation. **Nucleic Acids Res.** (2017) 45(15):8785.
- Zhou L, ..., Wang H. Linc-YY1 promotes myogenic differentiation and muscle regeneration through an interaction with YY1. **Nat Commun** (2015) 6:10026.
- Wang L, ..., Wang H. LncRNA Dum Interacts with Dnmts to Regulate Dppa2 Expression during Myogenic Differentiation and Muscle Regeneration. **Cell Res** (2015) 5:335.
- Fu X, ..., Wang H & Hu P. Combination of Inflammation-related Cytokines Promotes Long-term Muscle Stem Cell Expansion. **Cell Res.** (2015) 25:655-673.
- Lu L, ..., Wang H. Genome-wide survey by ChIP-seq reveals YY1 regulation of lincRNAs in skeletal myogenesis, **EMBO J** (2013) 32: 2575.