Yale Genetics

Open Postdoctoral Position
Yale University, USA

The **Nicoli Lab** (Scan QR Code) is seeking a highly motivated **Postdoctoral Researcher** with expertise in RNA biology to investigate **localized mRNA processes**—such as selective translation, transport, phase separation, and localization—that enable cells to respond to mechanical stimuli.

This project will explore **RNA-based regulatory mechanisms in mechanotransduction**, aiming to understand how the regulation of **mRNAs** influences cell behavior in response to **extracellular matrix and blood flow-induced hemodynamics**. Ultimately, our goal is to uncover how mRNA can serve as a **building block for tissue engineering and regenerative therapies**, with applications in **stem cell development, wound healing, and cardiovascular disease treatment**.

Key Responsibilities:

- Design and conduct experiments on post-transcriptional mRNA regulation in the context of cell biology and tissue ex-vivo and in vivo mechanotransduction.
- Investigate RNA-mediated processes governing cellular responses to mechanical cues.
- Utilize advanced molecular and imaging techniques to study RNA localization and function.
- Collaborate within a multidisciplinary team at the intersection of RNA biology and biomechanics.
- Present findings in scientific conferences and author top notch publications.

Qualifications:

- PhD in **Molecular Biology, RNA Biology, Biophysics, or a related field**.
- Strong background in RNA biology, gene regulation, or mechanotransduction.
- Experience with RNA imaging, ribosome profiling, or related transcriptomic techniques.
- Excellent problem-solving skills and ability to work independently.

If you are excited about unraveling RNA-driven mechanisms in cellular responses to mechanical forces, we encourage you to apply!

To apply, please send your CV, a brief cover letter, and contact information for three references to stefania.nicoli@yale.edu