



The Lionnet lab at NYU School of Medicine is looking to fill a fully funded postdoc position to study epigenetic regulation in living cells.

We seek to build predictive gene expression models based on quantitative measurements of biological processes in living cells. In the process, we develop novel single-cell and advanced imaging tools. We believe these approaches will be key in understanding how cells process biological information to drive gene expression programs. Many unsolved questions remain, with fundamental implications for evolution and disease: how do non-coding DNA sequences impact transcription? How do physical (spatial organization, crowding, hubs and phase separation) and biochemical cues (transcription factors, chromatin marks) conspire to regulate expression? The postdoc project will focus on developing cutting edge live-cell, single-molecule imaging techniques to investigate the interplay between chromatin organization and transcription dynamics.

The Lionnet lab (<http://www.timotheelionnet.net/>) is part of the NYU Institute for Systems Genetics (<https://med.nyu.edu/institute-systems-genetics/>), a vibrant and growing scientific community bringing together tool builders, synthetic biologists, creative computational and genomics biologists that solve biology problems using engineering approaches.

We are looking for scientists with a fearless approach to experimental problems, and with special interest in setting up and developing novel imaging technologies to solve long-standing problems in gene expression, transcription regulation and chromatin organization.

The applicant should hold a PhD in Biophysics, Cell Biology or related area. Desired skills include:

- fluorescence imaging and image analysis
- first-hand experience designing or modifying microscope systems
- strong quantitative and coding skills
- experience in gene expression profiling, single cell biology and mathematical modelling
- excellent communication skills
- ability to lead project independently and work as part of a team

Interested? Please contact Timothee Lionnet (timothee.lionnet@nyumc.org) with your CV including 3 references and a brief paragraph describing your scientific interests and how you would fit in the lab.