UC RIVERSIDE

BCH 252 Seminar Series

Dr. Sihem Cheloufi, Assistant Professor, Biochemistry , UC Riverside

Seminar Title: "How Chromatin Accessibility and Small Non-Coding RNAs Control Cellular Plasticity"

Abstract: The ability of stem cells to self-renew or mature into specialized cell types is central to embryonic development, organismal life and response to infections, injury, and aging. This plasticity of cell fate is largely attributed to the activity of lineage-specific transcription factors and dynamic changes of the epigenome. Our work and others have previously shown that cellular plasticity is governed by replication-coupled chromatin assembly and heterochromatin regulation. An added layer of complexity to these gene regulatory pathways are the diverse classes of small non-coding RNA molecules including transfer RNA-derived small RNAs (tsRNAs) that are emerging as key epigenetic players. However, how chromatin assembly pathways maintain cell identity and whether tRNAs cooperate with these pathways to regulate cellular plasticity remain elusive. In this seminar I will present our new findings on the mechanisms by which replication-coupled chromatin assembly maintains lineage fidelity in hematopoietic stem and progenitor cells and discuss how tRNA biogenesis is implicated in the regulation of cellular plasticity.

ZOOM Link: https://ucr.zoom.us/j/97233953239?pwd=U2w1VVdtcDI4WW8rRXdTUVp2WWp4dz09
Meeting ID: 972 3395 3239
Passcode: 609143

Tuesday, March 1st, 2022
12:00 p.m. - 12:50 p.m.

Host: Dr. Xuan Liu