

BCH 252 Seminar Series



**Jernej Murn, Assistant Professor,
Biochemistry Department, UC Riverside**

**Seminar Title: "The life and times of RNA:
Learning about fundamental principles from
studies of essential RNA-binding proteins"**

Abstract: The **Murn laboratory** investigates how **RNA-binding proteins (RBPs)** regulate various events during the lifetime of an RNA molecule to control gene expression and direct the workings of a cell. By pairing diverse gene perturbation approaches with longitudinal studies of cellular metabolism, we discovered an RBP-regulated program of **cellular quiescence** and we pioneered methods for its induction in human cells. We also obtained the first direct evidence for tissue-specific regulation of a tRNA modification and indicated the potential of its RBP-mediated implementation in **alternative reading of the genetic code**. We took the initiative to systematically dissect the **interface between RBPs and the effectors of RNA processing**, and we continue to drive research in this emerging field. The Murn team also developed a technology, termed **timeCLIP**, for time-resolved studies of protein–RNA interactions.

Link to the Murn lab webpage at UC Riverside:

<https://www.murnlab.info>

Tuesday, November 12th, 2024 12:00 p.m. - 12:50 p.m. PST

In-Person: Genomics Auditorium 1102A

Host: Dr. Xuan Liu