



Thomas Jefferson University
Sidney Kimmel Medical College

Genome-Wide Epigenetics of RNA Biology

The frontier of biology is to understand how RNA is post-transcriptionally modified. This is the basis of RNA epigenetics. The transcriptome of cellular organisms from bacteria to human is modified, which constitutes a new mechanism of regulation of gene expression. We have 2 NIH-funded positions open at Thomas Jefferson University, Philadelphia, USA, to study systems biology of RNA epigenetics. This research is critical to human health and disease.

We seek candidates with a recent PhD who can generate genome-wide data from bench experiments and analyze data with bioinformatics and biostatistical tools. We are interested in the following questions of how RNA epigenetics impact cell fitness to:

- Develop resistance to antibiotics?
- Interpret codon usage in the genetic code?
- Determine the quality of proteomes?
- Avoid neural degeneration and disease?

For more information, please see the following publications and our website:

Cell Reports (2022). PMID: [36288695](#)

J. Mol Biol. (2022). PMID: [34995554](#)

eLife (2021). PMID: [34382933](#)

Nat Communications (2021). PMID: [33436566](#)

Cell Chem Biol (2020). PMID: [32553119](#)

ACS Catal (2020). PMID: [32904895](#) (Featured as the cover)

Ann Neurol (2020). PMID: [32715519](#)

Cell Systems (2019). PMID: [30981730](#) (Featured in Faculty 1000 Prime)

PNAS (2016). PMID: [27849575](#) (Featured in PNAS commentary)

Nat Struct Mol Biol (2016). PMID: [27571175](#). (Featured in Science)

Nature Communications (2015). PMID: [26009254](#)

<https://houlaboratory.com/research>

<https://www.jefferson.edu/university/research/researcher/researcher-faculty/hou-laboratory.html>

Please send a cover letter, CV, and contact information of three references to:

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