

Postdoctoral positions to study miRNAs and alternative polyadenylation Eric Lai Lab, Sloan Kettering Institute, NYC, USA

The Eric Lai lab at Sloan Kettering Institute, NYC (<https://www.mskcc.org/research/ski/labs/eric-lai>) has availability for two postdoctoral candidates to join our efforts in RNA mechanisms and biology. Our group uses integrated approaches to study several areas in post-transcriptional regulation, but two topics of particular interest include (1) mechanisms of miRNA biogenesis and their dysregulation and (2) molecular strategies and biology of tissue-specific alternative polyadenylation (APA).

The ideal candidate will have experience in biochemistry, CRISPR methods, and/or genomics, and will be able to take advantage of extensive unpublished tools and resources, in *Drosophila* and mammalian systems. We have an interactive, supportive, and collaborative team engaged in diverse RNA topics, and the Sloan Kettering Institute provides a vibrant research community that promotes inclusivity and diversity.

Funded positions with nearby subsidized housing and medical benefits are available immediately. Please provide CV, motivation letter and references to Eric Lai, laie@mskcc.org.

Recent papers on APA mechanism and biology

Wei, L., S. Lee, S. Majumdar, B. Zhang, P. Sanfilippo, B. Joseph, P. Miura, M. Soller and E. C. Lai (2020). Overlapping Activities of ELAV/Hu Family RNA Binding Proteins Specify the Extended Neuronal 3' UTR Landscape in *Drosophila*. ***Molecular Cell* 80**: 140-155.

Garaulet, D.L., B. Zhang, L. Wei, E. Li, and E. C. Lai (2020). A post-transcriptional regulatory circuit specifies the virgin behavioral state. ***Developmental Cell* 54**: 410-423.

Lee, S., B. Zhang, L. Wei, R. Goering, S. Majumdar, J. M. Taliaferro, and E. C. Lai (2021). ELAV/Hu RNA binding proteins determine multiple neural alternative splicing programs. ***PLoS Genetics*, 17(4)**:e1009439.

Recent papers on miRNAs and other RNA regulatory pathways

Vedanayagam J., W. K. Chatila, B. A. Aksoy, S. Majumdar, A. J. Skanderup, E. Demir, N. Schultz, C. Sander and E. C. Lai (2019). Cancer-associated mutations in DICER1 RNase IIIa and IIIb domains exert similar effects on miRNA biogenesis. ***Nature Communications* 10**: 3682. doi: 10.1038/s41467-019-11610-1.

Shang, R., S. Baek, K. Kim, B. Kim, V. N. Kim, and E. C. Lai (2020). Genomic clustering aids nuclear processing of suboptimal pri-miRNA loci. ***Molecular Cell* 78**: 303-316.

Kan, L., S. Ott, B. Joseph, E.S. Park., C. Dai, R. E. Kleiner, A. Claridge-Chang, and E. C. Lai (2021). A neural m⁶A/YTHDF pathway is required for learning and memory in *Drosophila*. ***Nature Communications* 12(1)**:1458. doi: 10.1038/s41467-021-21537-1.

Bejarano, F., C.-H. Chang, K. Sun, J.W. Hagen, W.-M. Deng, and E. C. Lai (2021). A comprehensive *in vivo* screen for anti-apoptotic miRNAs indicates broad capacities for oncogenic synergy. ***Developmental Biology* 475**:10-20.

Joseph, B. and E. C. Lai (2021). The Exon Junction Complex and intron removal prevents resplicing of mRNA. ***PLoS Genetics***, in press.