

**Spring**

**UROP Department, Lab, or Center: Biology (Course 7)**

**MIT Faculty Supervisor Name: Gene-Wei Li**

**Project Title:** Web-based data visualization for high-resolution transcriptome mapping

**Project Description:** High-throughput DNA sequencing has been a transformative tool for quantifying the expression of genomes. However, there lacks an intuitive and accessible platform for data visualization and for sharing among scientists across different disciplines. The Li lab has recently developed an end-enriched RNA-seq method that provides a high-resolution view of transcriptome with single-nucleotide resolution. These genome-wide data sets provide comprehensive information about regulatory elements that will benefit the broader research community. We are looking for a UROP to develop a web-based visualization tool for interactive analysis of this new data type. Extension of this project may involve development of a mobile app, as well as other computational biology projects. This position is available for pay or credit.

**Prerequisites:** Familiarity with genomic data is a plus, but not necessary. Independent and self-driven student.

**Contact:** Cindy Woolley: [cwoolley@mit.edu](mailto:cwoolley@mit.edu). Please send a concise cover letter, a resume with relevant experience, and the number of hours you could work on the project.