

BMB960 Sec 002: Select Topics in Biochemistry (cross-listed as CMB 800 and GEN 800)
Chromatin Dynamics and Gene Expression in Development 1 (Arnosti, Ralston, Chandler, He)
Fridays 1-3 pm, SS19

Course Description:

The chromatin landscape of the eukaryotic nuclear environment dynamically adapts to changing programs of gene expression as cells differentiate and respond to physiological stimuli. Modern molecular tools allow researchers to track histone modifications, DNA methylation, and other changes in chromatin structure on a genome-wide basis. To identify key regulatory changes and understand the importance of certain types of chromatin modifications to gene expression, we use increasingly powerful computational approaches to characterize genes and regulatory regions. This course will examine modern literature, focusing on a wide variety of systems and approaches to look at the integration of chromatin dynamics and gene expression in development and disease. Instructor- and student-led literature presentations will form the core of the course.