BiophysTO Lunchtime Talks

Craig L. Peterson

Professor and Vice-Chair
Program in Molecular Medicine
University of Massachusetts Medical School

Chromatin Remodeling Machines

Nucleosomes are the main packaging component of chromosomes, and they play key regulatory roles in nearly every nuclear process. Nucleosomes are stable particles, and therefore an input of energy is needed for their dynamic properties - such as sliding/repositioning, ejection, or histone variant replacement. To enable these activities, eukaryotic cells have evolved specialized ATP-dependent chromatin remodeling complexes. For example,the INO80 subfamily of chromatin remodeling enzymes catalyzes the incorporation or removal of histone variants. Recently, we have applied FRET-based remodeling assays to investigate ATP-dependent changes in DNA wrapping on the nucleosome, histone dimer removal, and histone dimer replacement by INO80 family members. In addition to these mechanistic studies, the *in vivo* impact of nucleosome editing on the coding and noncoding transcriptome will be presented.

Host: Dr. Walid A. Houry

(Refreshments and pizza will be provided)

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Thursday, April 7, 2016 – 12:00 pm, noon
Davenport Room, Chemistry Building
(and via streaming to HSC332 at UTM)