Johns Hopkins University

Department of Biology Seminar Series

Thursdays, 4:00pm

For more information go to: *https://bio.jhu.edu/events*

Mudd Room 100 -October 5th, 2023

Sarah Jane Hainer

Assistant Professor

Dietrich School of Arts and Sciences, University of Pittsburgh

Host: Xin Chen

Nucleosome dynamics and non-coding RNAs coordinate to regulate cell state

My research interests focus on the similarities and differences in chromatin structure among different cell types and how chromatin remodeling factors that modulate these differences regulate cell fate. The long-term goals of my laboratory are to comprehensively understand the functions, targets, regulation, and mechanisms of action of non-coding RNAs (ncRNAs) and chromatin regulatory factors with critical functions in the embryonic stem (ES) cell gene regulatory network, through development, and in disease states. Active research areas in my laboratory include: (1) identifying chromatin remodelers that regulate ncRNA expression; (2) determining the function of two uncharacterized classes of ncRNAs in ES cells; (3) characterizing molecular changes occurring in cancer cell lines with chromatin remodeler mutations; (4) optimizing and expanding the utilization of a novel technique for profiling chromatin binding proteins, CUT&RUN. Enabling these studies, my research spans the disciplines of genomics, cell and molecular biology, biochemistry, and genetics.