

**BIOINFORMATICS 2017 Fall SEMINAR SERIES**

Hosted by: Department of Computer and Information Sciences,
Department of Electrical and Computer Engineering &
Center for Bioinformatics and Computational Biology
<http://bioinformatics.udel.edu/Seminars/Current>

MONDAY, September 11, 2017
3:30pm
DBI Room 102

Visualization of transcription dynamics in living *Drosophila* embryos

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ABSTRACT:

Transcriptional enhancers are short segments of DNA (~100 bp to 1 kb) that switch genes on and off in response to intrinsic and external cellular signals. Whole-genome assays suggest that the human genome contains ~400,000 enhancers (~20 per gene). There is emerging evidence that sequence polymorphisms in enhancer DNAs are a major source of population diversity and predilection to disease. My lab uses quantitative live imaging methods to visualize the activities of enhancers that control the development of the early *Drosophila* embryo. I will discuss transcription bursts, Pol II elongation, coordinate activation of linked genes, and transvection.