

Prof. Xiaoliang Sunney Xie

Department of Chemistry and Chemical Biology

Harvard University



presenting

Life at the Single Molecule Level

DNA exists as single molecules in individual cells. Consequently gene expression is stochastic. Single-molecule gene expression experiments in live single cells have allowed quantitative description and mechanistic interpretations. The fact that there are 46 different individual DNA molecules (chromosomes) in a human cell dictates that genomic variations occur stochastically and cannot be synchronized among individual cells. Probing such genomic variations requires single-cell and single-molecule measurements, which have been made possible recently, opening opportunities to investigate and to diagnose cancer, and to avoid genetic disorders in newborns.

Monday, February 29, 2016

4:00 P.M.

2033 Young Hall

Reception

5:15 P.M.

3037 Young Hall