

THE JOHN LAWRENCE SEMINARS



"IN SITU OXIDATIVE DNA DAMAGE RESPONSE: MECHANISMS AND HUMAN DISEASE"

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Oxidative DNA damage caused by reactive oxygen species and/or environmental toxicants is responsible for genomic instability, epigenetic information changes, and leads to tumorigenesis and aging. To understand the oxidative damage response in situ, we have developed several unique methods to induce DNA damage at specific genome loci (transcriptionally active sites or telomeres) in live cells. These approaches allow us to visualize the DNA damage response at distinct genome loci in real time with 3D resolution in a single cell nucleus, and understand how chromatin remodeling and histone epigenetic alteration are involved in DNA damage response. The mechanisms of how cells protect genome stability against DNA damage at transcriptionally active sites during the G0/G1-phase, therefore preventing tumorigenesis, aging and neurodevelopmental defects, will be discussed.

TUES., NOV. 17TH
4:00 P.M.

717 POTTER STREET
ROOM 141
BERKELEY LAB

HOST:
PRISCILLA COOPER

Schedule of Seminars: <http://johnlawrenceseminars.lbl.gov/>
Non-LBNL attendees: please RSVP to FGuagliardo@lbl.gov or 510-486-6490