



Developmental roles and mechanisms of differential DNA replication



Cells increase DNA content as a developmental strategy throughout the plant and animal kingdoms. Polyploidization of Drosophila glial cells is crucial to increase cell size and for the blood-brain barrier. In addition to changes in ploidy, the copy number of specific genomic regions can be altered by under or over replication, providing powerful models to delineate the regulation of metazoan origin firing and replication fork progression. We exploited regions of differential DNA replication in Drosophila tissues to identify a protein that tracks with and inhibits replication forks and to demonstrate that origin refiring generates DNA damage whose repair is a prerequisite for fork progression.

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Host: Dr. Julie Brill and Dr. Craig Smibert Date: Monday September 29th, 2014 Time: 4PM Place: Fitzgerald Building, 150 College Street, Room 103