



CDB SEMINAR

David M. Gilbert

Florida State University

Friday, November 11, 2016

16:00~17:00 A7F Seminar Room

Developmental Control of Replication Timing and Chromosome Architecture

* This seminar is a part of the Epigenetics Seminar Series 2016.

Summary

Replication timing (RT) is regulated in units of several hundred kilobases ("Replication Domains"; RDs), over half of which undergo RT changes during differentiation (developmental RDs). RDs correspond to topologically associating domains (TADs), which are structural units detected by chromosome conformation capture. TADs with similar RT tend to interact, creating spatio-temporally segregated sub-nuclear compartments. Developmental RDs exhibit altered RT regulation in cancer, creating sub-type specific and patient-specific RT "fingerprints", some of which can be traced to the primitive cell type of origin. Our work attempts to understand what regulates RT and its biological significance to development and cancer.

Host:

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