



Dr. Bradley R. Cairns

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Location: Merrill-Cazier Library room 154
April 16, 2009 from 3:30 – 4:30 PM

“Poising Chromatin: Gene packaging and DNA Demethylation in Germ Cells, ES Cells, and Embryos”

The Cairns lab is interested in how chromatin structure helps regulate gene transcription. We purify and characterize large protein complexes that remodel and modify chromosome structure. We are also interested in epigenetics, and how chromatin structure and DNA methylation/demethylation dynamics are utilized in germ cells to poise the genome for development, and in embryos to guide developmental processes. My lecture will focus on the second topic, and will discuss our recent isolation of a DNA demethylation system, and also new data that important genes for embryo development are ‘poised’ in the germline (sperm and eggs), using principles similar to those used in embryonic stem cells.

Refreshments will follow in the Biotechnology Building Lobby

Seminar