

## Centromeres Impersonating Telomeres, and other Forms of Deception at the Chromosome End



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The linearity of eukaryotic chromosomes is potentially dangerous, as chromosome ends resemble damage-induced DNA breaks and are therefore vulnerable to degradation and fusion, which provoke genome instability. We study the spectrum and mechanisms of telomere function. Recent discoveries include a mode by which telomerase-negative fission yeast cells use 'generic' heterochromatin to protect chromosome ends. We have also expanded the telomeric repertoire, finding that telomeres control meiotic spindle formation and centromere assembly. These principles apply to proliferating cells as well, as centromeres control the decision to mount mitotic spindle assembly. These studies are widening our view of telomere and centromere function.

**Friday**  
**Oct. 14<sup>th</sup> at 2:00 PM**

**Berkeley Lab**  
**Aquatic Park**  
**Room 977-141**

**Host: Gary Karpen, Biological Systems & Engineering Division**