IBGC SEMINAR

TUESDAY 17 JUNE 2025

14h00

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Multiscale visualization of chromatin in yeast Saccharomyces cerevisiae

Chromosome organization is key to genome function, yet its ultrastructure remains elusive. Using super-resolution microscopy (50–250 nm), we mapped chromatin in budding yeast, revealing striking differences between nucleoplasmic and nucleolar regions. While nucleoplasmic chromatin aligns with polymer models, the nucleolus defies predictions—rDNA forms dense clusters that segregate active transcription sites. Correlative microscopy (CLEM) exposed these clusters as yeast fibrillar centers, mirroring metazoan nucleolar architecture. Our work unveils a conserved tripartite nucleolus and challenges classical polymer models of chromatin organization.

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