

THE EPIGENETIC REGULATION OF CENTROMERE AND CHROMOSOME SEGREGATION

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The centromere is a chromosome region defined by a variant nucleosome needed to prevent chromosome loss and aneuploidy. Loss of HAT Gcn5 causes several mitotic defects and chromosome loss. We are studying the consequences of an aberrant epigenetic regulation caused by deletion of key epigenetic regulators on mitotic progression in budding yeast.

We show that deletion of SAGA components HAT-Gcn5 and DUB-Ubp8 leads to an aberrant association of histone variant at the centromere in yeast. This and other results clearly indicate an interesting epigenetic cross-talk which regulates the main organelles controlling chromosome segregation and Mitosis.