RESEARCH ABSTRACT FORM

TITLE: Identification of Novel Genes Required For Chromosome Segregation

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Meiosis is a specialized cell division that occurs during sexual reproduction. It results in the formation of haploid gametes from diploid precursor cells. Homologous chromosomes undergo crossing over during meiosis, which is required for accurate homologue segregation. In addition, meiotic recombination gives rise to offspring with recombined DNA. Not all components of the machinery for crossover formation are known. Previous work has identified genes coding for proteins with functions in recombination. Some of these gene products are specific for meiosis while others also have function during mitosis. Here, a mutant screen was performed to identify novel gene products with function in meiotic chromosome segregation. Transposon-mediated mutagenesis was used to generate a genome-wide library of specifically tagged truncation/deletion alleles. Mutant strains with characteristic defects for meiotic cell cycle progression and/or reduction in viability after return to growth medium were further assayed for viability by tetrad dissection. I will present data for some of these mutants.