ABSTRACT

TITLE:	Characterization of a Yeast Histone G13a Mutant Strain That "Escapes" Gene Silencing
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PRESENTED AT:	4th Annual Natural & Behavioral Sciences Undergraduate Research Symposium, Fort Lewis College

ABSTRACT: Histones and chromatin structure are vital for regulating gene transcription. Through previous work, a glycine to alanine mutation at position 13 (G13A) of the histone H4 tail was found to increase silencing of the yeast ADE2 gene, resulting in a red phenotype. Interestingly, this mutant was found to be able to "escape" this repression and become phenotypically white. The red and white phenotypes of the G13A mutant are being characterized in an attempt to understand how the "escaping" process occurs. Characterization methods included analysis of growth—to determine global transcription levels—and histone purification for acetylation level determination by tandem mass spectrometry.