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FUNCTIONAL CHARACTERIZATION OF *EDS1*, A PREDICTED YEAST ZINC CLUSTER PROTEIN AND PUTATIVE TRANSCRIPTION FACTOR

Mike Toomey

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EDS1 is an uncharacterized putative transcription factor in *Saccharomyces cerevisiae*. Previous studies have indicated that this gene may play a role in the glucose expression pathway, as well as the yeast lysine biosynthesis pathway. With this background, *EDS1* was knocked out in combination with *MIG1*, *MIG2*, *RGT1*, and *LYS14* yeast transcription factors in different experiment conditions, including time courses performed with glucose media and stationary galactose experiments with and without lysine in the media. RNA-Seq and metabolite data were obtained for these different experimental conditions, and preliminary results suggest that Eds1 plays a role in regulating the glucose repression system, and its presence in the cell may affect a number of important regulatory and functional proteins such as a number of glucose-related transcription factors and *HXK1*, a protein which plays a crucial role in phosphorylation of glucose during glucose metabolism.