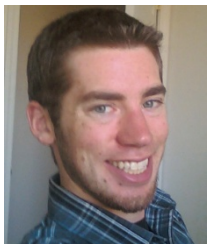

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Understanding the mechanisms by which plants resist infections by pathogens is crucial to developing methods to ameliorate or eliminate the pathogenic effect of such organisms on plants. NAC1 is a transcription factor which is upregulated during a plant's response to infection and has been shown to be necessary for effective disease resistance. My work has been to develop multiple mutations of NAC1 and assay their transcriptional activity in a yeast one-hybrid system to characterize the function of specific domains of the NAC1 protein and better understand the regulation of its ubiquitylation-and-proteasome-mediated degradation. Ongoing work involves inducing the overexpression of NAC1 in tomato protoplasts and analysis of mRNA to identify transcriptional targets of NAC1.