

# Isaac Hilton, Biology

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## **Natural genetic variation in *Arabidopsis thaliana*: A functional genomics approach to drought and heat stress tolerance**

The natural variation of *Arabidopsis thaliana* is currently providing unique knowledge from functional, ecological, and evolutionary perspectives. The presence of the complete genomic sequence and a huge collection of gene disruptions provide a research resource that is unique for higher plants. The objective of this experiment is to observe the responses of different phenotypes (natural variants) to specific stresses in order to quantify their respective levels of genetic expression thereafter. This experiment will use five lines from varying ecotypes and backgrounds to achieve the goals specified above.