Shayla Ghose

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**HYRS Weekly Report – Week 2**

This week I have applied code to each log2 fold change script for both male and female to find the number of up and down regulated genes. I found which genes specifically were up and down regulated and made Excel workbooks highlighting this information. I continued to learn more about DGEA and its uses, including the various types of processes used such as RNAseq and microarray. I have become more comfortable with the R language and manipulating code and have been able to create volcano plots. I used a publication paper on volcano plots to explore more advanced features within volcano plots. I found the topmost significant genes (and their respective gene symbols) for both up and down regulated in male and female for each log 2 fold change script. I explored the Enrichr database and researched how to use the top genes to identify information through various pathway analyses.