**Analysis of Hydroxyproline-rich glycoprotein Pollen Genes in Arabidopsis Thaliana**

In a previous work 13 Hydroxyproline-rich glycoprotein (HRGP) genes that are also expressed in pollen were identified in Arabidopsis Thaliana. We took those 13 HRGP pollen genes promoter sequences and 132 non-pollen HRGP genes and searched for motifs of size x-x that might be binding sites for transcription factors.

Original discovery of motifs was done using two methods. The primary method was **Yichao’s method** which created **####** motifs. We then added to this #### motifs from athamap. This gave us a total of 3519 motifs.

To investigate the data, we plotted each gene by the number of pollen specific genes vs. non-pollen specific genes. This allowed us to visually inspect for any patterns or clumping that may indicate thresholds to use in further analysis.

**A screenshot of a cell phone

Description generated with high confidence**

We also wanted to look for patterns of motifs occurring together, so we also charted the foreground vs the background for every pair of motifs:

A screenshot of a cell phone

Description generated with high confidence

Works Cited

AuthorLastName, FirstName. Title of the Book Being Referenced. City Name: Name of Publisher, Year. Type of Medium (e.g., Print).

LastName, First, Middle. “Article Title.” Journal Title (Year): Pages From - To. Print.