Bioinformatics Workshop Exercise Handout #4

Day 2, PM: GWAS Lecture

Data Type Exercise:
What type of data is the following?
1. Blood type
2. Fish tail shape
3. Hair color
4. Water turbidity
5. Birth order
6. Happiness level
7. Dog breed
8. Pain scale
9. Litter size
10. Cancer presence

Regression Exercise:
What type of regression would you perform on the following data?
1. Hair length
2. Shoe size
3. Dental cavity presence
4. Blood type
5. Vision presence/absence
6. T-cell count
7. Fly eye diameter
8. Number of branches
9. Pain scale
10. Dog hair curliness

Bonferroni Exercise:
1. What is the new significance threshold for a dataset of 30,000 variants if you use a Bonferroni correction on an initial alpha = 0.05?

Personal Dataset Exercise:
1. What type of data are each of your variables?
2. What is your trait of interest?
3. What are some covariables you need to account for in your own study?
4. What type of regression would you perform on your data?
5. If there are markers in your dataset, how many?
    a. What would be an adjusted p-value if you used Bonferroni correction with an alpha value of 0.01?