

1127-62-411      **Omar De la Cruz Cabrera\*** (odelacru@kent.edu), OH. *Sets of Hypotheses*. Preliminary report.

The analysis of high throughput data is often set up as a set of parallel hypothesis tests. The result is usually a list of “discoveries,” together with a measure of significance. Often, this is regarded as a way to rank or prioritize promising hypotheses; in this case, the resources available for follow up studies might determine the number of discoveries (for which a false discovery rate can be reported).

This is fine, but not appropriate when we want to make inferences about sets of hypotheses. This occurs when we need to go further than individual hypotheses, by comparing the set of discoveries with pre-existing, annotated sets. We will sketch a general setup for inference about sets of hypothesis, with applications in the interpretation of high throughput studies and data integration. (Received February 08, 2017)