**Ethics paper: due October 13**

Write a 5 page paper (plus references) on one of the following 4 topics.

1. You are in charge of an organization or company that stores electronic health records. What ethical issues should you consider when crafting a policy about how to respond if you learn that the privacy of any or all of your data becomes compromised? What is current applicable US or state law? Are the issues different if the data were collected for research or treatment purposes, or are the issues exactly the same?

2. Ethical issues in synthetic biology. As our ability to read and understand whole genomes increases, inevitably, so will the possibility that we will eventually know how to make meaningful edits. What are some of the ethical implications?

3. Ethical issues in genetic testing. Given our increased understanding of how variations in our own genetic code can impact disease risk, the rise of personalized medicine means that at some point, for example, there might be a genetic test that can tell us that we are 40 times more likely than the average person to develop Alzheimer’s disease before the age of 60. What are some of the ethical implications?

4. You are in charge of the data analysis for a clinical trial to determine if drug X can cause nasty side effect Y. The results come back as a weak yes, but with a statistically insignificant $p$-value (for example, $p = .2$). What are your ethical responsibilities in explaining this finding to a statistically unsophisticated general public? Does your answer change if instead $p = .1$ or $p = .05$?