

CMSC423: Gene Scavenger Hunt
Fall 2014

Recently, Angelina Jolie underwent a mastectomy upon learning she carried mutations associated with breast cancer susceptibility. For this exercise, you will learn about the molecular basis of that decision.

Find (and indicate source with a link):

1. Gene: name, symbol, entrez gene id, ensembl gene id
2. Location in human genome (as reported by entrez): chr, start, stop
3. Screenshot of Ensembl genome browser for gene region
4. Gene structure: how many exons? how many mRNA transcripts according to refseq?
5. dbSNP or ExpASy record for a mutation in this gene associated with breast cancer: what kind of variation is it (point mutation/nucleotide change, insertion, deletion)?
6. OMIM record for this gene
7. RefSeq record for protein sequence of one of the gene's isoform
8. UniProtKB record for gene
9. Pubmed record for 1 paper on association of the gene you found and breast cancer
10. Record for one GEO (gene expression omnibus) experiment (GSE id) containing expression for a breast cancer sample.

How to submit:

- Create a new document in google docs
- Write names and UIDs of your group
- Enter answers to questions above (you can insert screen shot there)
- Share the document with your instructors: hcorrada@gmail.com, wikumdina@gmail.com