**\*\*\*\*\* Assignment 1 \*\*\*\*\***Top of Form

Solution

The query I used to investigate polymorphisms in the CAPN10 gene relating to type 2 diabetes in different human subpopulations utilized the AND/OR conjunction, while also using certain filters to include only human species studies and publications from the last ten years. When using these filters, my search returned 22 results.

Correct query should be like this: noninsulin-dependent diabetes OR Type II diabetes AND calpain-10 OR CAPN10 AND human AND polymorphism

True Positive: 19

False Positive: 1

Sensitivity: 19/20 = 0.95

This will give you a 19 true: 1 false positive ratio. I defined true positive as all the articles that mentioned variation in the CAPN10 gene and how they are correlated to human Type II diabetes. Most of them also makes reference to subpopulations, like Mexicans, or Iranians, or obese children. The only false positive will inform about the genetics of polycystic ovary syndrome and briefly mentioned CAPN10 and diabetes in the introduction but was not very relevant to our goal.

Important information for grading homework-1:

1. If you couldn’t find any comments from the student on how to improve their teammates' queries and determine which query worked best is an important part of the assignment, then take off “-50” from their total grade.

2. Student didn’t provide any subpopulation in their query and connecting keywords by using additional conjunctions (AND/OR) would get more accurate results.

3. Student sometimes didn’t include important keywords in the PubMed searches to narrow down their results.

4. Students sometimes forget to include species name, gene name and the "subpopulation".

5. Sometimes students are posted an article title in their query which is absolutely incorrect.

6. Incorrect usage of double-quotes and parentheses.

7. Using English sentences is incorrect for this assignment.

8. Incorrect assignment.

9. Ignore the spelling and the grammatical error. Bottom of Form