

University of Pennsylvania
BIOL4536 Fall 2023
Professor: Gregory R. Grant
QUIZ#2 (MAKEUP)
(Prob/Stat)

October 16th, 2023

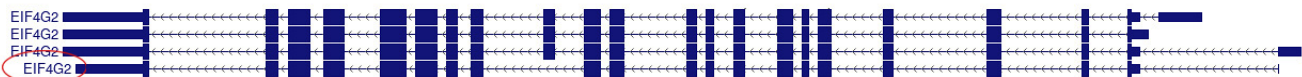
Name: _____

Question 1. (1 pt.) True or False. All genes have multiple exons, but not necessarily multiple isoforms.

ANSWER: False.

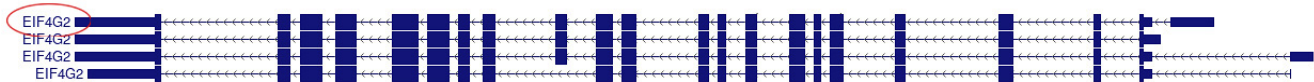
Question 2. (1 pt.)

Circle the ID next to the isoform that has 5' UTR containing the shortest exon.



Question 3. (1 pt.)

Circle the ID next to the isoform with the 5' UTR with the shortest intron

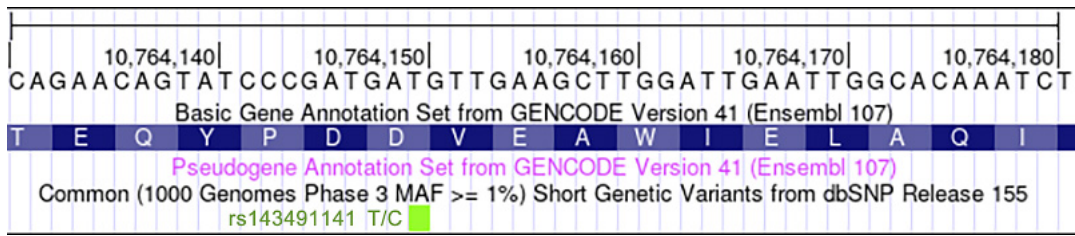


Question 4. (1 pt.)

Circle the link for the tool to align sequence to the genome.

Tools	
Blat	tb
In-Silico PCR	ti
Table Browser	tt
LiftOver	
Gene Sorter	
Variant Annotation Integrator	
Data Integrator	
Genome Graphs	
Gene Interactions	
Other Tools	

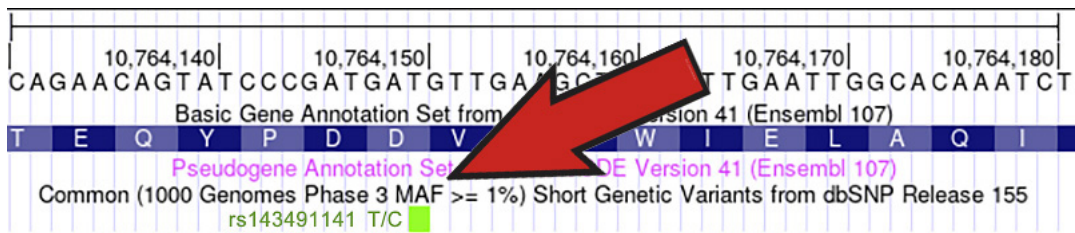
Question 5. (2 pts.)



Assume this gene is on the forward strand. Write down the two possibilities for the codon that codes for the amino acid affected by the SNP.

ANSWER: GAT/GAC

Question 6. (2 pts.)



What does MAF stand for?

- (A) Multiple Alignment Frequency
- (B) Minor Allele Frequency ← **THIS ONE**
- (C) Missense Adjusted Frequency
- (D) Marker Affected Frequency

Question 7. (2 pts.)

True or False: The following graphic indicates that UTR's are more highly conserved than CDS.

ANSWER: False.

