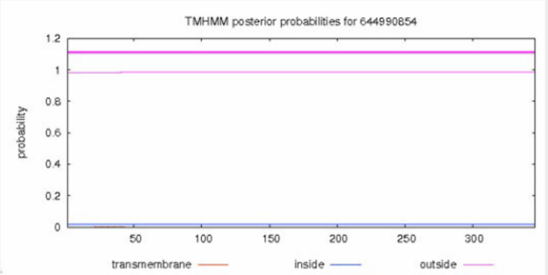


Knowledge of Genomics

1. For each of the following statements, please select one response per row.

	True	False	I don't know
A gene encodes a protein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Each gene has its own unique promoter.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Each gene encodes an RNA.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If translated, the DNA sequence of the gene controls protein structure and function.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A gene is transcribed.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If translated, the DNA sequence of a gene has no impact on the cellular localization of the encoded protein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Each gene has its own Shine-Dalgarno sequence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If translated, any change in the DNA sequence of the gene leads to a change in the amino acid sequence of the encoded protein.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A gene's DNA sequence is usually no more closely related to DNA sequences from its closest relatives than to DNA sequences of unrelated organisms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A gene has homologs in other organisms.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. For each of the following statements, please select one response per row.

	True	False	I don't know
There are 6 possible reading frames for protein translation for any double stranded DNA molecule.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The line below is the correct format for a FASTA header that is added to the beginning of a DNA or amino acid sequence prior to computer analysis.  <div style="text-align: center;">&gt;Ksed_00010 nucleotide sequence</div>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
T-Coffee analysis predicts the cellular location of a gene product.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A Shine-Dalgarno sequence in bacterial DNA indicates the site where DNA polymerase binds to start DNA replication.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A signal peptide directs proteins to be secreted from the cell in bacteria.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An EC number is used to describe the function of an enzyme.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
All genes in a bacterial genome are functional.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Some genes in a species of bacterium may have been obtained from an entirely different species of bacterium without being inherited.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Gene annotation is the process of assigning function to a particular DNA sequence.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Refer to the TMHMM output below. The results indicate that the protein being analyzed is located outside of the cell.  	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>