ERROR CORRECTION 30 SEPT 15

ANNOUNCEMENTS

FINAL PROJECT

- Groups of 3-5. No more than 1 grad per group.
- Can use data from published manuscript, downloaded from ENA, your own data.
- •I approve topic (Oct14)
- Presentations last week of class
- Written paper due last day.

FINAL PROJECT EXAMPLES

Genome

Transcriptome

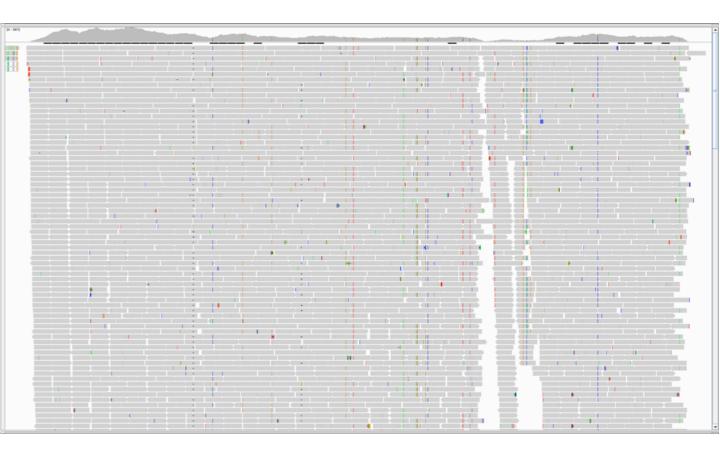
Expression

Comparative Genomics

EXAM REVIEW

Evolution is:

The 4 mechanisms are:



ÁCTGTCATTCGGACTÁ ACTGTCATTCGGACTA ACTGTCATTCGGCCTA ACTGTCATTCGGACTA ACTGTCATTCGGACTA ACTGTCATTCGGACTA ACTGTCATTCGGACTA ACTGACATTCGGACTA ACTGTCATTCGGACTA ACTGTCATTCGGACTA

Consensus = ACTGTCATTCGGACTA

TATACAATITICGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGCTCTATTTTATACAATTTCGTTTT TATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTCTATTTAAGCATTGC

ÁCTGTCATTCGGACTÁ ACTGTCATTCGGACTA ACTGTCATTCGGCCTA ACTGTCATTCGGACTA ACTGTCATTCGGACTA **ACTGTCATTCGGACTA** ACTGTCATTCGGACTA ACTGACATTCGGACTA ACTGACATTCGGACTA ACTGTCATTCGGACTA

Consensus= ACTG{A,T}CATTCGGACTA

TATACAATITICGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGCTCTATTTTATACAATTTCGTTTT TATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTCTATTTAAGCATTGC

ÁCTGTCATTCGGACTÁ ACTGTCATTCGGACTA ACTGTCATTCGGCCTA ACTGTCATTCGGACTA ACTGTCATTCGGACTA **ACTGTCATTCGGACTA** ACTGTCATTCGGACTA **GCTGATAAC**CGGACTA ACTGACATTCGGACTA ACTGTCATTCGGACTA

Consensus = ACTGTCATTCGGACTA

TATACAATITICGTTTTTATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTGCTCTATTTTATACAATTTCGTTTT TATGAAAACTCCTAAAAGCAAACATATTTACCAACAATCCTTGCATACGAAATAACCGATTCTATTTAAGCATTCTATTTAAGCATTGC

Hamming Distance: http://en.wikipedia.org/wiki/Hamming_distance

3 different strategies

Kmer-spectra based

Suffix tree based

MSA based

Evaluation of Correction