

10. Hover over some of the colored boxes (these are the genes). Describe three different genes found here.

11. Now go back to the Genome Data Viewer Page with the Phylogenetic Tree of Eukaryotes (you should be able to just click the back button at the top left side of the page). Click the "<<" button next to the dolphin phylogeny to get back to the original phylogenetic tree. The circles with pictures have complete genomes that can be displayed. Click on the human link. Then click on Browse Genome on the right side of the screen.

How many different chromosomes do humans have not counting our mitochondrial DNA? _____

12. Click on a chromosome of your choice. The chromosome will be displayed in a horizontal position at the top of the screen. You can slide a blue "slider bar" back and forth to highlight certain regions of the chromosome. To do this, click and hold the very right side of the chromosome and drag the highlighted region to the left. You can also do this on the left side of the chromosome to make the region you are investigating a little smaller. The colored bars/bases are the individual genes that are located below the chromosome. Again, just hover over a gene and you will see an information box pop up. In this same box, click on the first link located under "Links & Tools". The name of the gene should then be displayed. Record the name of the gene below:

Name of Gene: _____

13. Next, hover over a gene labeled with the abbreviation "ENSO" with a long number after it. Once the information box pops up, click on the "View (ENSEMBL)" link located under "Links & Tools". On the left side bar, click on "Gene expression". Here you will see a gene expression atlas of the human body. If you hover over various parts of the body, the parts affected by this particular gene (mostly during embryonic development) will be highlighted. The chart to the right will also highlight the corresponding descriptions of the specific areas affected by the gene. In addition, you can switch between male and female gene expression as well as the brain. Record the following for the gene you have selected:

Gene Name: _____

Found on Chromosome: _____

Parts of the Body affected by this gene: _____
