

DNA Organization

What is supercoiling and why is it so important?

Describe what DNA looks like during interphase

Describe histones and list the 5 histone proteins.

Draw two tetramers to make an octomere and label the histone proteins.

What is chromatin remodeling important for?

Fill out the table:

| | | |
|-----------------|--|--|
| Acetylation | | |
| Methylation | | |
| Phosphorylation | | |

What is so unique about DNA methylation? (Think CPG islands)

What is the difference between euchromatin and heterochromatin?

What are centromeres used for during DNA replication?

Describe pseudogenes:

Describe all 6 analytic techniques:

Absorbtion of UV light:

Denaturation and renaturation of nucleic acids:

Molecular hybridization:

FISH:

Reassociation kinetics:

Electrophoresis:

