

# Chap 18: Gene Regulation and Expression

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How do bacteria respond to the environment and regulate their gene expression?

What is the difference between operator and operon?

What is the difference between the repressor, regulatory gene and corepressor?

What is negative gene regulation?

What is the difference between repressible and inducible operons?

How is positive gene regulation controlled?

Know the difference between lac operon example and the tryp operon example.

What is differential gene expression?

How is histone acetylation different than DNA methylation? When does a cell use which?

How do cells use enhancers?

What is alternative RNA splicing? What is the benefit of doing this?

How does differentiation relate to morphogenesis?

What are cytoplasmic determinants?

What are homeotic genes?

Know the example of Maternal effect genes (bicoid) when it comes to fruit fly embryo development.