



# Mutations

What do you think about when you see the word « mutation ? »





Two Headed


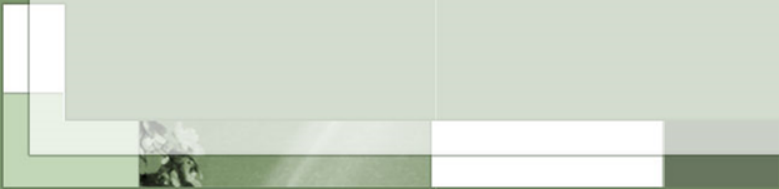
**COW**

This cow was born  
two heads





# Genetic Mutations

- modification of the cell's genetic baggage
  - when the order of bases (i.e. C, G, C and T) being read changes, thus changing the desired protein
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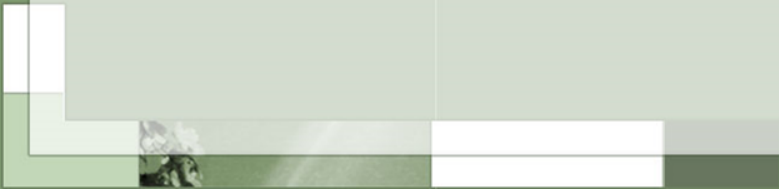
# Kermode Bear








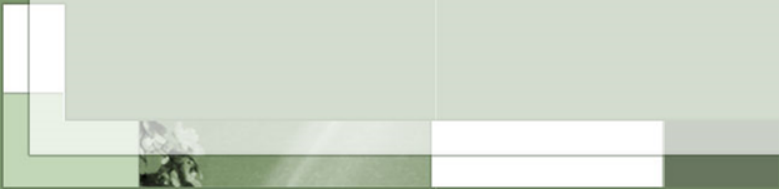
# Effects of Mutations

- A base is removed, thus changing the order of the sequence.
  - A base is added, thus changing the order of the sequence.
  - A substitution: one base is replaced by another, thus the sequence stays close to the same
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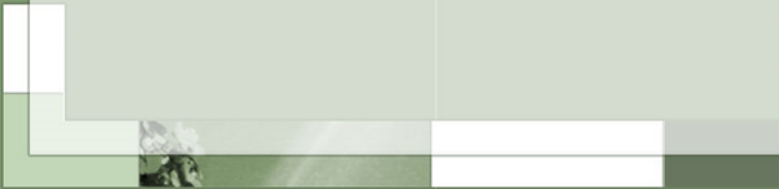


# Positive Mutations

- A mutation that favours an individual
  - Ex : People who are resistant to HIV/AIDS
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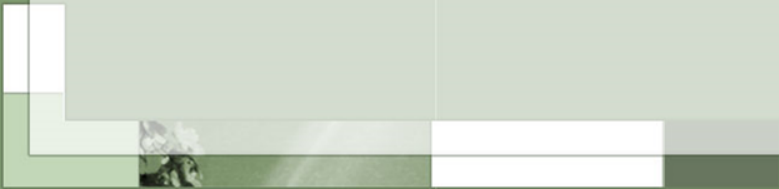


# Negative Mutations

- A mutation that puts an individual at a disadvantage
  - Changes of survival/reproduction are reduced
  - Ex : Cystic fibrosis
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# Neutral Mutations

- A mutation that does not affect the individual
  - Ex: Kermode Bear's white fur
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# Les mutagènes

- sont des substances ou des facteurs qui peuvent causer des mutations dans l'ADN
  - Ex : virus biologique (verrues), rayons X, rayons UV, les polluants comme le mercure, etc.
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