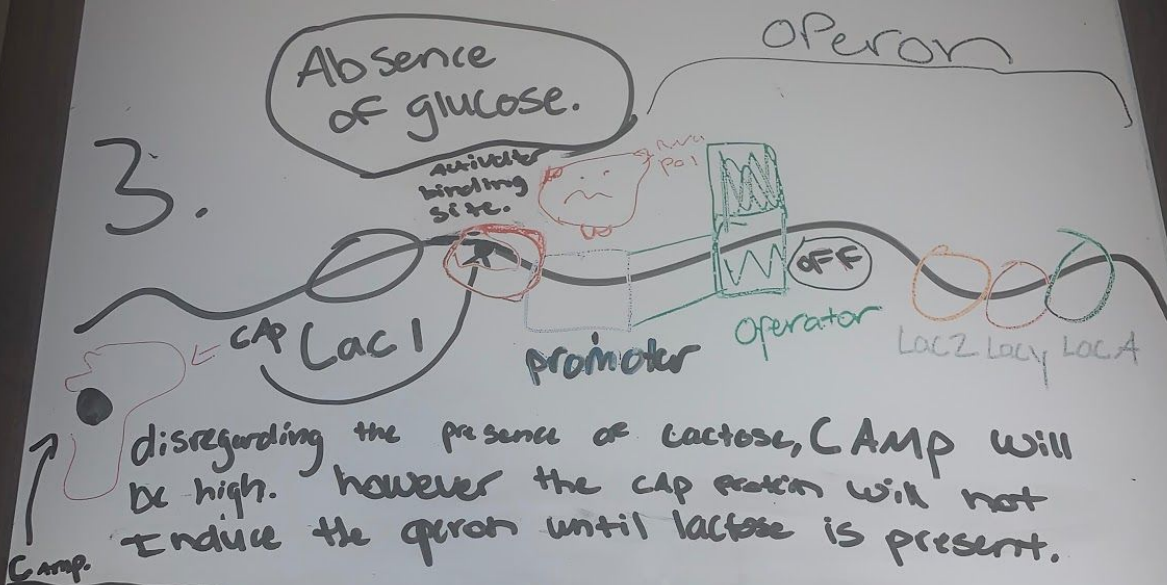


Extra explanation:

1. Absence of lactose, operon will not be turned on. Some Lac genes may be present in cell because basal level of expression.

2. presence of Lactose, operon will turn on only when glucose is not Available. Cmp will be high if there is no glucose.



Finally:

This regulation occurs in the dna. Transcription of the dna towards the end with Structural genes coded for mRNA to create proteins. once signaled, the RNA Pol will bind to promoter to start transcription process.