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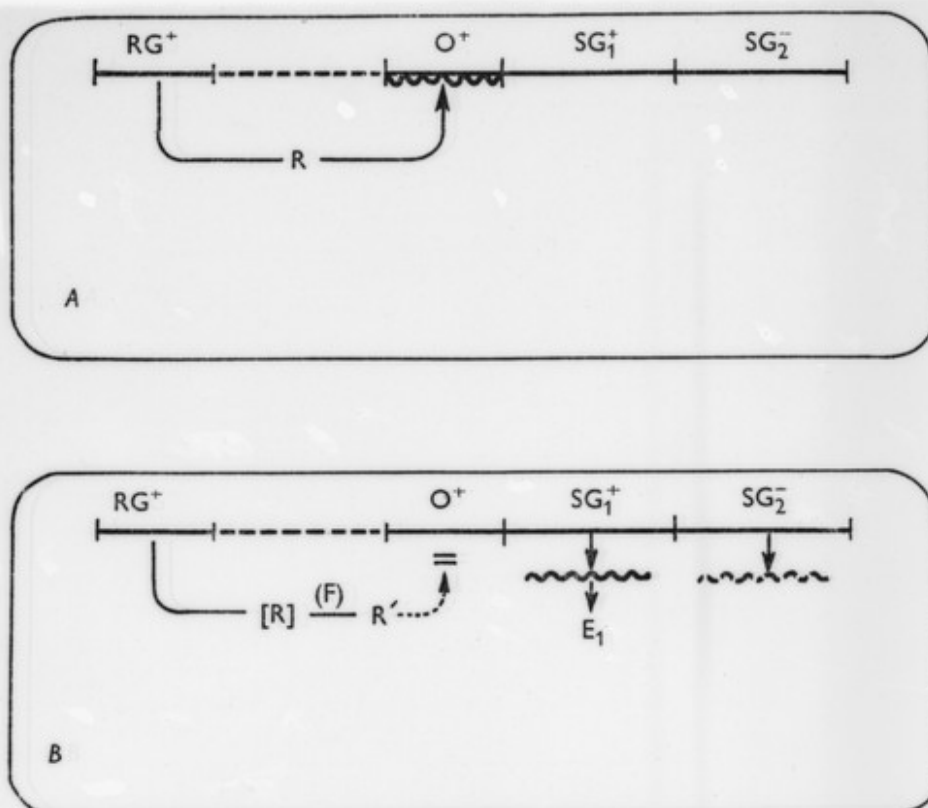
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In other words, these mutations have no effect on the 'enzyme' rule. These mutations are not expected to alter the structure of the protein; they are expected to bring about the breakdown of the



Schematic of the effects of a mutation of a structural gene. The regulation functions as in a normal cell: (A) In the absence of inducer, transcription is blocked in both genes; no enzyme is synthesized. (B) In the presence of inducer, transcription is allowed in both genes; the normal structural gene (SG_1^+) produces normal messenger and normal enzyme. The mutated structural gene (SG_2^-) produces an altered messenger which in turn determines the synthesis of an altered (inactive) protein.

plasmic product, the regulator gene should control the activity of a structural gene whether or not the two genes are located on the same chromosome (in genetic terminology both in the *cis* and in the *trans* configurations). This means that 'constitutive' mutations of the regu-