

Copy of a printed diagram referenced as "Schematized behaviour of diploids heterozygous for the constitutive operator"

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Publication/Creation

October 1962

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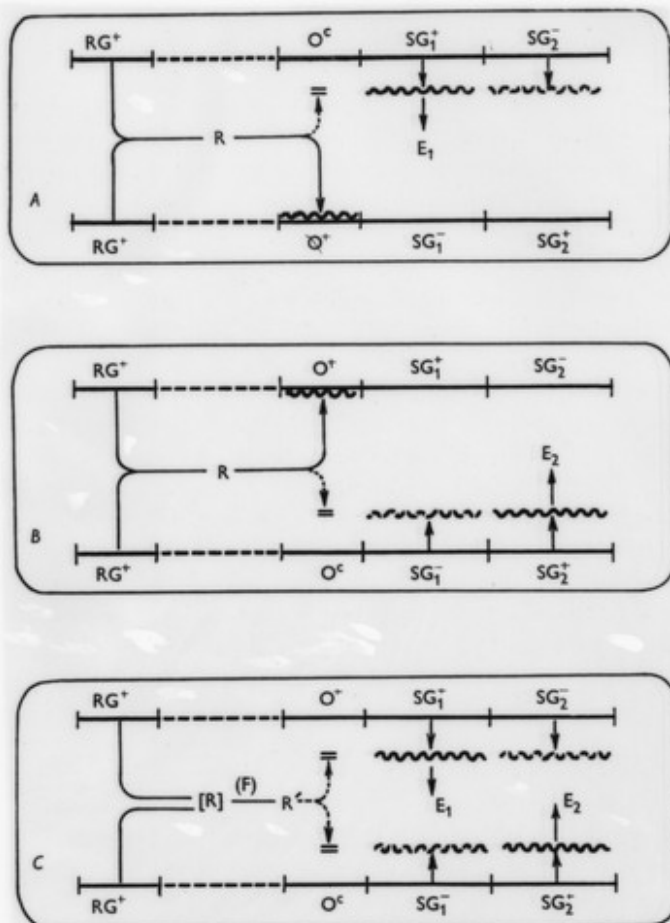


Fig. 8. Schematized behaviour of diploids heterozygous for the constitutive operator (O^c mutation) and for each structural gene. (A) In the absence of inducer, the repressor made by the regulator gene blocks transcription in the lower chromosome which carries a normal operator; it does not act on the upper chromosome bearing the O^c mutant of the operator which does not combine with the repressor. Only enzyme E_1 is produced constitutively. (B) Same situation, but the mutated (O^c) operator is supposed to be present on the lower chromosome. Only enzyme E_2 is now produced. These two schemes illustrate the fact that an operator mutation affects only the activity of the genes placed on the same chromosome. (C) In the presence of inducer, both enzymes are produced.

should behave like 'physiological deletions' of the whole group. In recombination experiments, on the other hand, they should not behave as deletions; the structural genes should prove to be present and unmutated.

Thus operator mutations would not obey the one-gene one-enzyme