

Diagram referenced as "General model of the regulation of enzyme synthesis"

Contributors

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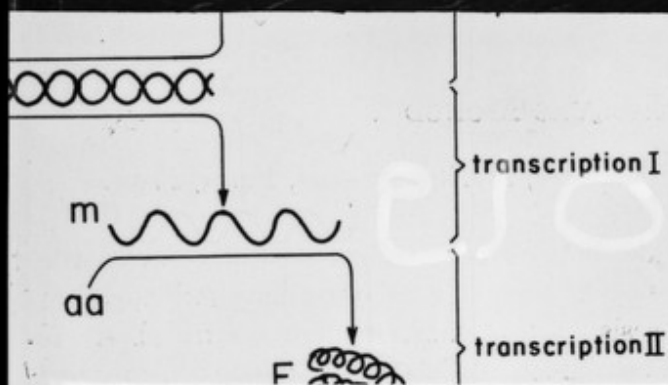
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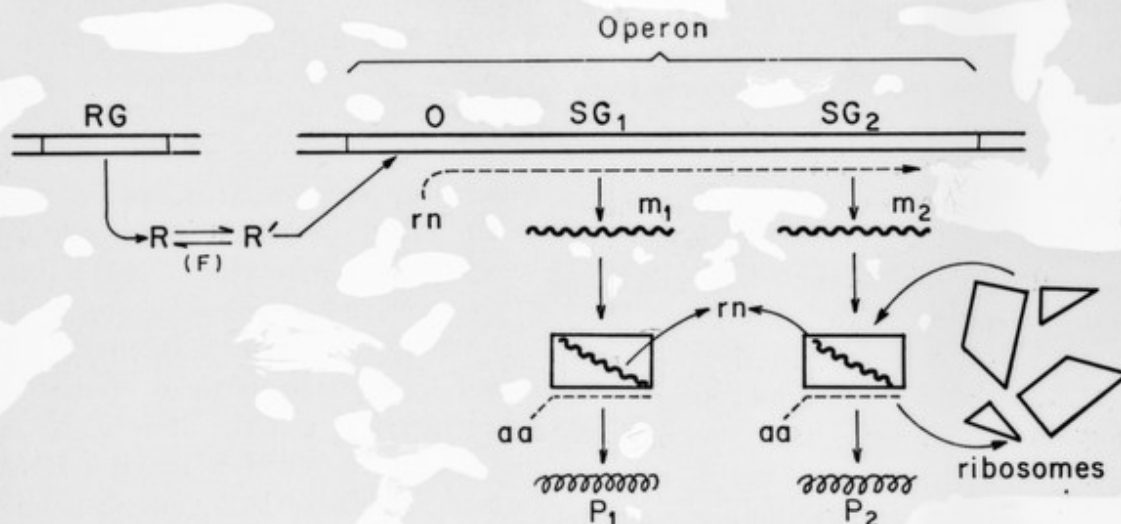
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1.
dR?
n: m

fore be defined as the unit of primary transcrip

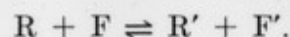
3. The genetic material contains determi
functionally distinct from structural genes (an
erators), called regulator genes. A regulator gene
duces a cytoplasmic *repressor* which may be vis
as an RNA transcript of the regulator gene
repressor formed by a given regulator gene
affinity toward, and tends to associate reversibly
a specific operator (probably by homology o



model diagrammatically represented in Fig.
ves the following assumptions.

The primary product of structural genes, or
messenger RNA," which brings structural informa-
from genes to cytoplasmic protein-forming cen-
s a short-lived intermediate. Once completed,
detached from the DNA and associates in the
asm with pre-existing, non-specialized ribosomal
es. The second transcription takes place on
mes, and the messenger is destroyed in the
s. Once completed, the poly

with certain small molecules (which we shall
factors). The reactions are specific with res
both the repressors (R) and the effectors (F) a
be expressed as



In certain systems, called *inducible*, only
form of the repressor can associate with the
and block the transcription of the operon. The
of the effector (called inducer) inactivates
therefore allows transcription