Personal memo from
JOSHUA LEDERBERG

5/23/00

"Hormesis" and heritable steady states.

Toxicity is not involved here, but the phenomenon described by Novick-Weiner and Mel Cosic years ago offers a sound theoretical foundation for hormesis.

As to biophysical response, doesn't every metabolite have an optimum?

H₂O

life

molecular oxygen

air breathes.

I look forward to stimulating reading.

Thank you responding so promptly with the report.

Joshua Lederberg

THE ROCKEFELLER UNIVERSITY NEW YORK 10021-6309
COHN M, HORIBATA K
INHIBITION BY GLUCOSE OF THE INDUCED SYNTHESIS OF THE
BETA-GALACTOSIDE-ENZYME SYSTEM OF ESCHERICHIA-COLI - ANALYSIS OF
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J BACTERIOL 78: (5) 601-612 1959

COHN M, HORIBATA K
ANALYSIS OF THE DIFFERENTIATION AND OF THE HETEROGENEITY WITHIN A
POPULATION OF ESCHERICHIA-COLI UNDERGOING INDUCED
BETA-GALACTOSIDASE SYNTHESIS
J BACTERIOL 78: (5) 613-623 1959

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PHYSIOLOGY OF THE INHIBITION BY GLUCOSE OF THE INDUCED SYNTHESIS OF
THE BETA-GALACTOSIDE-ENZYME SYSTEM OF ESCHERICHIA-COLI
J BACTERIOL 78: (5) 624-635 1959

NOVICK A, WEINER M
ENZYME INDUCTION AS AN ALL-OR-NONE PHENOMENON
P NATL ACAD SCI USA 43: (7) 552-566 1957

Once lac permease is induced
by a pulse of lactate, the lactase
is sustained at much lower
concentrations of the inducer.

See also the Delbrueck 1949 cited herein.