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Y. Hirota

Cable address: Genetics, Misima

June 2, 1976

Professor Joshua Lederberg
Department of Genetics
Stanford University Medical Center
Stanford, California 94304
U. S. A.

Dear Joshua :

Under the separate cover, I am sending you a manuscript of peptidyl-transferase I (coaxypeptidase/ transpeptidase/ endopeptidase)-less mutant of E. coli. I am grateful to you if you could communicate this manuscript to the Proc. Nat. Acad. Sci., U.S.A.

As you know, this enzyme have been considered the killing target of penicillin action, however we present here the negative evidences against the possibility. Many years ago, you pointed out the site of penicillin action is specific for the septation site of cell wall, and I thought that if I could ask your favor to communicate it?

On my return, I have been continuing my work towards the problem of cell wall biosynthesis with respect to the cell growth and cell division of E. coli K12. Because of your discoveries of penicillin action, I worked out on a penicillin-targets, and this is becoming my first work done in Japan on my return.

We have now an other mutant lacking peptidyl transferase II (Ghuysen-Pollock's peptidoglycan-carboxypeptidase) which grows normally. Furthermore, a double mutant lucking both defects was constructed from these mutants. It grew completely happily. We are now on the way to find the real enzymes responsible for the cell division and cell wall synthesis: the enzyme reactions which you predicted about 20 years ago.

Looking forward of your favorable answer, and thank you very much, in advance.

Sincerely yours,

Y. Hirota
Y. Hirota

