

THE UNIVERSITY OF WESTERN ONTARIO
FACULTY OF MEDICINE



DEPARTMENT OF BACTERIOLOGY AND IMMUNOLOGY
THE HAMILTON KING MECK MEMORIAL LABORATORY

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LONDON, CANADA

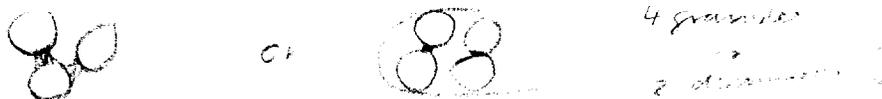
November 21st, 1949

Dr. Joshua Lederberg
The University of Wisconsin
College of Agriculture
Madison 6, Wisconsin.

Dear Lederberg:

I was very glad to hear of your cytological observations!

Confid^{urations}~~urations~~ of granules rather than rodlets or dumbbells are common in coli. I believe the granules to be connected by ~~ferrous~~ *tenuous* chromatin threads thus:



Your drawing does not say much about the number of granules in the haploid structure. To judge by its contours the haploid body, if less deeply stained, might well contain the same number of granules (two dumbbells per chromatinic body?) which you find in the diploid. Do the diploid structures always appear more open and less dense than the haploid ones?

Uninucleate~~d~~ coli cells may be found in 18-24 hrs. slant cultures, and, larger, in transfers of these which have been incubated for 3/4 - 1 hr. at 37° on heart infusion agar. True, the nuclei in single cells tend to be large and compact but the division figures of the nuclei of single cells ~~seen~~ after brief incubation 

(during the lagphase) resemble those of individual nuclei in bacteria from growing cultures. They do not look like aggregates of nuclei moving apart prior to resumption of their division-cycle.

I enclose the schedule which I should follow to obtain ^{uni-}~~veri-~~ nucleate cells and also some photographs which should give you a fair impression of the range of chromatin configurations found in normal haploid coli. The prints (eventually to be returned, please) were made a long time

ago. The negative, which you may keep, is new and I have not printed from it yet. It should be enlarged 2x and printed on the softest paper that will still give a white background. These pictures may help you to make up your mind in judging the diploid bacteria.

With best wishes

Sincerely yours

C. Robinow

CR:ns

C. ROBINOW