

May 21, 1952

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Dear Ed:

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The prep. enclosed, made from K-12 a few days ago may interest you; I'd like your comment on its interpretation. Something went wrong, probably with the fixation, and the nuclear elements are shrunken down, but the result is it may be possible to count the units. I have the impression of a basic set of three "chromosomes", for there are a lot of cells that look something like: . Unfortunately, there are

Diagram also some others that don't fit such a simple picture so very well.

To make a long overdue answer to some of your questions: there is a little of our cytological work in the CSH paper. Until we get a good deal further along with our interpretations, I don't plan to publish much more, but I am definitely going along with it in the two obvious directions: looking for the conjugation (on which we have some leads) and comparing haploid with diploid, and maybe later, with triploid (which I think we can get if we take the trouble). By the way, our interpretation of the slides was written for the CSH ms. before we knew of your work, and we took special pains not to alter it, so there could be no question of hindsight. I am morally convinced of mitosis of course, but am not so optimistic of being able to set up a comprehensive, provable story with my own material, which as you pointed out is hardly the best. What's going on with the genetics of *B. megaterium*?

About reprints, I should have sent some out long ago (what little I have left, that is) but I was sure you already did have some of them, though I couldn't find any record. Some are in the mail; if you will let me know what else you may have, I'll see what I can do to fill any gap. Of course I hope to continue exchange of anything further.

For some of our vital microscopy, it would be very useful to have a vital stain tag for two parents to be crossed. Tetrazolium works beautifully, but the granule (which I think is a localized deposit, and not at all a stain of the chondriosome itself) does not divide along with the cell, so I can't use presence/absence as a tag. Do you know of another vital stain that can be distinguished cell by cell— perhaps another tetrazolium in the collection you and Mudd have been using. Those I've tried have a reddish cast and can't be definitely distinguished from one cell to another.

Yours sincerely,

Joshua Lederberg