February 10, 1948.

Dr. J. Monod,
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Paris, France.

Dear Jacques-

Some Maltose-negative mutants were despatched to you several days ago.

I believe they included the following:

W-1.	Mal_1- mutant of Y53 (T-L-B_1-Lac_1-)
W-33	Lac-reversion of W-1 (Therefore, T-L-B_1-Mal-Lac+)
W-20	Mal_2- mutant of 58-161 (B-M-) V. slow positive.
W-56	Mal_1- mutant of Y-40 (B-M-V_1^r) Mal- allelic with W-1.
W-60	Mal_3- mutant of Y-40 . Not allelic with W-1.
W-102	Mal_4- mutant of Y-10 (T-L-B_1-). Not allelic with W-1 or W-60. Not yet tested with W-20.

Through an oversight, I do not know whether these were sent also:

W-108	Glucose-negative mutant of Y-10.
W-169	A non- or poor-fermenting mutant of Y-10
W-172	A gluconic-,maltose- mutant of Y-10.

I trust these will be of some use to you. I have a number of others, but until the genetic analysis is completed, we would not know which of them were redundant. You have the wild type (re fermentation) progenitors of these strains.

Your findings on the lactase of coli ML are most interesting. I had planned on trying the same sort of thing with K-12-- perhaps you could oblige me with a summary of your methods, or even better why not repeat your preparations using K-12. If there is but a single enzyme, some of my results become most perplexing. For example, the wild type splits butyl-b-galactoside as well as lactose. Some Lac- mutants can still split the galactoside, while others cannot.

In a further examination of cross-adaptations in K-12, I find the following: Lactose-adapted are galactose-adppted, as expected; galactose-adapted seem to adapt to lactose much more quickly than cells grown on glucose. Finally, galactose and l-arabinose show complete cross-adaptation, although I have some mutants which are galactose- but arabinose+. Adaptation to gluconate is specific. D-arabinos (the direct decarboxylation derivative) is not utilized.

I had occasion to test a commercial preparation (Schwarz, N.Y.) of fructose diphosphate, and noted that it was as active as glucose (somewhat ~~xxxx~~ slower rate of growth) on Proteus X-19, although fructose itself is not utilized. HA Lardy here is very much interested in the sucrose-phosphorylase that must characterize this organism and may go into it.

As to your very cordial invitation to come to Paris, I must admit that it is very intriguing, and had it been possible to arrange the trip before I began here, I should certainly have done so. I would very much enjoy the opportunity of working with you, whether here or at Paris. Unfortunately, I can see no prospect of taking leave here for 2-3 years at least. I am building a laboratory --personnel and facilities-- practically from scratch, and could not leave that task until I could be sure that it would be operating smoothly in my absence. Right now I am working with rather crude equipment, but the situation is improving daily, and by the Fall I hope to be installed in very adequate quarters. If you could be interested in taking advantage of American prosperity for a time, I should be happy to see what arrangements could be made.

Dr. Taylor mentioned that your chief is visiting New York in the near future. I should be interested to learn whether Dr. Lwoff contemplated travelling to or through the midwest on this occasion so that there might be some opportunity of renewing our acquaintance.

To return to the subject of the previous paragraph, if we cannot arrange to collaborate at close quarters, there is no reason why we should not continue to do so at this long range. I shall be happy to send any mutants I have-- almost all that this suggestion entails on your part is that you attend to K-12 as a coli strain rather than some of the others. From the point of view of facility of genetic analysis, and of available mutants, I can see no question that it is by far the best strain to use for such work as either of us is doing now.

Best regards,