October 1, 1952

Dr. Harlyn O. Halvorson
Department of Bacteriology
University of Michigan
Ann Arbor, Michigan

Dear Harlyn:

Your letter to which I replied only briefly depressed me considerably. The situation in that Department is apparently in reality a lot different from the impression you were given when you visited there. However, don't let it get you down and do the best that you can.

I would be quite firm in demanding that commitments which had been made in the course of the negotiations be completely satisfied. You don't have to put up with this kind of nonsense. If things do not change quite radically for the better, I don't think that I will have very much difficulty in getting you some other and more suitable offers.

I have worked out an extremely rapid and satisfactory method for measuring -glucosidase activity. One can do it on very small amounts of enzyme. The test is over with in 15 minutes and the color can be read in a half hour. It has a wide range which permits the measurement of preparations of varying degrees of activity without any difficulty. -phenyl glucose is the substrate and we are at present preparing a large batch which should be enough for a considerable number of assays. When this comes through I will send you some as well as some of the color reagent which is necessary for the test. It is going to be an extremely helpful procedure for speeding up all kinds of experiments particularly those associated with fractionation and purification.

Insofar as the C^{14} work is concerned, I had no difficulty in getting access to the carbon lab so we will undertake to do the isolation of the amino acids here. We surveyed a bunch of coli strains and found one which had absolutely no background of -galctosidase activity and we are going to undertake to do the tracer experiment with this system and see what happens. The experiment we shall do first is the reverse of the one we attempted; namely, to induce enzyme in hot cells with cold free amino acid mixtures and then isolate the enzyme and examine its activity. We are going to try to do all this on paper strips. If we are lucky, we will get relatively clean results. I will let you know as soon as we have anything certain on these experiments. I became discouraged with the -glucosidase system in yeast since we could not turn up any strain which did not have sufficient background of basal enzyme to confuse the results of such an experiment. I am busy now finishing up the second manuscript and should have it to you when I return from Washington in the middle of next week.

In the meantime keep pitching and consider seriously undertaking experiments which require free amino acid pool analysis since I have made arrangements which will allow us to get those done without any difficulty. Let me know frequently how things are going.

With fondest regards,

Sincerely yours,

S. Spiegelman

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