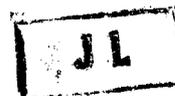


Joshua Lederberg
Madison, Wisconsin
January 2, 1957



Dr. Joseph Lein
Bristol Laboratories Inc.
Syracuse, New York

Dear Joe:

Thank you for your message of the 18th which was here on our return from a very pleasant trip to the West Coast.

I am delighted to hear that you are taking up this proposal for a new approach to chemotherapeutic screening. This has to be all right in principal, but of course there is a serious question as to how to reduce it to effective practice. The best one can do is exactly what you contemplate, namely, give it an empirical trial. It will take some thought, of course, and perhaps some random effort, to work out the best working procedure.

You asked me to give some attention to tumor chemotherapy. This is not something that one can be very hopeful about. I am enclosing a reprint by Latarjet which you might be interested to look at as it summarizes some of the most effective arguments. If there is a break-through, it is likely to be either on a purely empirical basis, or on the basis of some principal which has not yet become apparent. At this stage of the game therefore, it might even be worthwhile to consider using the substitutional chemotherapy approach (for lack of a better term for the proposal I sent you before). I know of no particular reason why this should work but that may be no bar to trying it. That would simply mean doing the same thing to, say, extracts or powders of Ascites tumor cells as you are preparing to do with Escherichia coli. At least this is no less likely to work than any other rational chemotherapeutic approach now being exploited.

I was disappointed to hear that your DAP sulfonic analog has not panned out. I would be very much interested to see how this works as a growth factor for the corresponding mutant. It might be possible to demonstrate a competitive antagonism on the mutant even though the compound alone was not an effective inhibitor for the wild type. I will be quite happy to send you a culture of the mutant for your own use as well if you still want it. We have some trouble keeping it going because of a rather frequent reversion and this is the only discouragement I would give to you about it. We have been able to purchase some DAP commercially from the Mann Research Laboratories, 136 Liberty Street, New York 6, N.Y. at \$10.00 per gram. We have not yet had an opportunity to assay the biological activity of their preparation. This raises the question of the stereochemical specificity of your synthetic material. Did your route of synthesis insure that you have a mixture of all of the stereoisomers, or at least a significant proportion of the naturally occurring form or its analog?

I will do as you say as regards the Voicewriter.

I am somewhat tied up now on account of the paper work that has accumulated during our trip and so will close. This should take no great time to get over. With best wishes for the New Year.

Yours sincerely,

Joshua

P.S.

I haven't heard anything from you one way or the other as concerns the military applications of the anti-perspirant. I don't want to press this on you if you have reached a definite decision one way or the other, but I'd hate to see something like that simply overlooked or forgotten, if only for patriotic reasons.

J.L.

insight still be possible here. This accumulation of 'offers' seems to be autocatalytic, and has no tranquilizing effect on us or our work. We did have a very pleasant trip to California over New Years, but were able to enjoy it primarily by agreeing to postpone serious discussions until we got home, namely now.

In some ways the Berkeley possibility is the most attractive --at least to be matched with the medical genetics at Wisconsin. However, we are very much in a quandary. So we can exchange sympathies.

I would very much want to discuss these matters with you; however, please use your discretion in publicizing them-- only because it gets rather wearing to be challenged with demands and comments, as you will probably have learned too.

With best regards,

Yours sincerely,

Joshua Lederberg