

Oct. 7, 1957

Dear Josh,

Tis a cloudy, cool day - somehow just right for letter writing. First in answer to your questions: Yes, we have an Sm^R DAP⁻ (from w 3231, Davis's culture). A table will be easier than trying to explain its behavior.

| | | 24 Hours | | 48 Hours | |
|---|-----|----------|-------------|-------------------------|-----------------------------------|
| + | DAP | + Sm | + P (low u) | Many tiny L's | # L's (feeble) |
| + | DAP | - Sm | + P | ### L's | ### L's (rigorous) |
| + | DAP | + Sm | - P | ### B | ### B |
| + | DAP | - Sm | - P | ### B | ### B |
| - | DAP | + Sm | + P | - | - |
| - | DAP | - Sm | + P | 5 L col + some tiny L's | ### |
| - | DAP | + Sm | - P | 6 B, 2 L's, + " " * | ### |
| - | DAP | - Sm | - P | ### small L's | ### L (small) + few B + large L's |
| + | DAP | + Sm | + 100 P | ### B | ### B |
| + | DAP | - Sm | " | ### B | ### B |
| - | DAP | + Sm | " | 4 L's + many tiny L's * | few L's + many tiny L's * |
| - | DAP | - Sm | " | few B + L + " " " | ### L (small) + few B + large L's |

* only visible microscopically

As you can see, the controls behaved as expected. Sm severely but not completely inhibits both ex- and intrinsically induced L colonies; also, the presence of Sm with penicillin seems to make the pen. rather inhibitory, at least in the intrinsically induced form where the effect is distinguishable. In trying to find the effect with zonal penicillin, I evidently didn't hit the level right or used too heavy an inoculum. This is probably irrelevant, but w 3231 was quite reluctant to produce an Sm^R.

Yes we have more mutants, but all messy ones, found in strains that are poor formers of L colonies. There are 20 altogether and none is a complete block - they are mixtures of rods, B's, and grotesque cells, some of which are reparable with hydrolysate. The non-rod forms are more noticeable in agar than in broth, where the rod form gains momentum too fast. The broth results are confused by the presence of a good deal of gunk from the hydrolysate, a recently made batch. I haven't yet tried DAP as a substitute for hydrolysate. These mutants are being maintained in agar for fear of losing them altogether in broth.

Yes more thin sections are on the way. Both agar and broth forms - including plain agar - are imbedded but not sliced, which I intend to spend next week on. Am still having trouble getting the methacrylate as hard as it should be. There are some information-less \bar{e} micrographs of Proteus L forms in August J. Gen. Microbiol. - gold standard - no clearer or more detailed than photographs.

The square petri plates have still not come. The delay is at the manufacturer's end, for purchasing has sent them 2 letters and is still trying to find what happened. You'll probably be back by the time they arrive. If they come reasonably soon, would you like one sent by air rather than surface?

I sent the manuscript to Porter a few days after receiving it. I retyped it myself because the secretaries were too busy, but they are doing the copy to be dittoed. They said it may take a while. And speaking of manuscripts, the proof of your virus genes, etc. review for the Texas journal was in poor shape. In some places whole lines were omitted, so I made the more extensive corrections on a separate sheet. The Bact. Revs. proof was nearly perfect. (over)

Am taking Jim Crow's beginning genetics course to the extent of attending lectures 2 hours a week. I believe this is worthwhile, for my knowledge of genetics is sorely lacking, and he presents the material well.

All is well and uneventful on the local front. The going always are sad for we'll probably never see these people again, even though vague "see you in ~" are promised. Bob and Mari left Madison a week + a half ago, + sailed for Europe last Saturday. (Mari got her master's in a mighty last-minute flurry) The Heumanns are leaving next Tuesday for Chicago where they will stay with friends a few days before flying to N.Y. Wulfram (sp?) has been gay + whistling in lab since his recombination came through. I guess the Ørskovs won't leave

SECOND FOLD

FIRST FOLD

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AIR LETTER
AÉROGRAMME

J. St. Clair
Genetics Dept.
U. of Wisconsin
Madison, Wis., U.S.A.

MADISON
OCT 9
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Dr. Joshua Lederberg
Dept. of Bacteriology
University of Melbourne
Carlton N 3
Melbourne, Victoria
Australia



till after you return - which reminds me - are you going to Calcutta? Sounds like a fine opportunity since you have to go half way around the world whichever way you go. The weather here has been ideal for the past couple of weeks - coolish + clear - until today when an overcast of clouds rolled in.

And how can I forget to mention the World Series? For shame! It's hard to avoid, for the darned thing is blaring forth from radios practically everywhere you go. Anyway so far WERE WINNING. Well, I've run out of space as well as inspiration. "Hi" to Esther.

Yours,
Jacky