

March 5, 1955  
(Friday)

Dear Bruce:

I am sorry that I do not have more to report to you in this letter. Robert Wright, one of my students here in the lab. and a wonderful person in every way had a terrible auto accident Monday, with severe cranio-cerebral injury. He has been unconscious since then, and all of us have been rather more concerned with that than anything else around the lab. It would be difficult to convey our feelings about it.

However, I did want to communicate something to you about the clone plating experiments. I have been using SW-534 —x 553, as being the most prolific, with the fewest interfering swarms. Individual motile initials (about 3 hours) have been picked to 1/2 ml broth, allowed to grow to clones of about 100, and these then plated ~~in~~ as pour plates in motility agar. This gives beautiful pictures of trails, not influenced by metabolite gradients, etc. I have also plated larger numbers of initials collected together, and without post-incubation, and these give about 1/7 trails per viable colony with quite larger samples.

So far about a dozen clones with trails have been found, in each case singly. I was exercised for a time about fairly numerous "minor trails" which appeared especially after 48 hours incubation, but these have proved to be of spontaneous origin. I.E. SW-553 (or rather the re-isolate SW967) gives these by itself. And surely enough, these cultures do engender a very small number of motile individuals. I have followed a few clones from these. Motility is quite weak and irregular. Most of the clones in which motility persisted at all were unicatenate, but one or two at least were distinctly di-catenate, though persistent chains were not developed. Ordinary platings of SW-967 have not shown the spontaneous minor trails, possibly owing to inhibitions by the excess non-motile individuals of surface platings.

transduction

If these clones continue to give the same picture of isolated occurrence of trails, I ~~might~~ shall have to abandon my opposition to the two levels of ~~unicatenation~~ catenation, but I shall have to switch over to —541 or —x 666 to finish up. There are some photographs of these pour platings in the making and I will send some copies when I have them printed up.

Johns

Other non-motiles plated in the same way (incl. SW666 and SW5211) <sup>but not 546</sup> have not so misbehaved.

Could there be any correlation with the prolificity of the trails in —x 967?