June 27, 1953

Dear Dr. Belser:

I would not recommend streptothricin-resistance. Many of the mutants show a variable cross-resistance to streptomycin, and there is not a clear single-step development of resistance. However, it might be usable in Serratia— in any case you could not immediately extrapolate the expectations from E. coli. You may be able to get some from Woodruff at Merck. Its non-availability through commercial channels is another disadvantage too. I wish I could recommend another resistance marker that would be as good as streptomycin, but I do not know of any. For an unselected marker, however, "furadroxyl" (see Szybalski) might serve; so might Co⁺⁺, or Maine. (Have you seen Cavalli's paper in Bull. W.H.O. 6: 185-206 1952?)

I have been hoping that I might hear from Dr. Treffers or yourself about the mutability modifier from 58-278. I have not so far.

For your Serratia problem, why do you not use additional auxotroph markers? Historically, these served very well for K-12 (v. Nature, 158: 558, Oct. 19, 1946).

Sincerely,

Joshua Lederberg