Personal Memo from
JOSHUA LEDERBERG

R H Davis ✓

JUL 29 1988

Auld lang syne.

It's fun browsing our ideas I've not worked on for 40 years. Thank you for your letter + enclosures. I also enjoyed your chapter in the Fungi. I don't see many people still working on the fascinating issues of the coenocyte.

The ~~reversions~~ adaptations I was speculating about were not lin⁻ → lin⁺, but what Beadle called "petes" – they petered out.* Your remarks on suppressor behavior in heterokaryons bolster the conviction that this is what the "petes" were. Beadle was quite surprised that we found an authentic reversion, in the lin case. I am also guessing that some suppressors may be lethal in homozaryons – they should be if there's systematic coding replacement.

*One of the early pab did that.

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$\bar{\bar{x}}$... → ✓ 7/29/88 mg

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p~~8~~ p33
11
on heterokaryons

Your spe-1 sounds like it might be a mobile genetic element. When it's transposed out of the spe site you'd see a "reversion" there and a coincident mutation at its new site. I don't know if mobilization of transposons is an authenticated reaction to UV (but I'd not be surprised if it's part of SOS).

I doubt if anyone's addressed whether a transposon could hop from 1 nucleus to another in a heterocaryon. Nor whether anyone's looked at the cytology of hyphal reaction to UV. In E. coli (a remote analogy to be sure) there's a bizarre "condensation" of the nuclear units.

Specific question: what is the bibl. reference to your spe note? May I cite it?

Sincerely
Joshua Lederberg

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