Personal memo from
JOSHUA LEDERBERG

Prof Kasten

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I am most grateful to you for your generous and substantial response to my questions.

I have been reinvestigating the mechanism of EMB staining of Lac+ colonies, which I have used in genetic studies since 1946. It can hardly be just the pH of local medium: it is far too precise for that! Using phloxine uptake as a proximate model I suggest that this is an active process, associated with proton export in pH homeostasis. Killed cells of E. coli take up phloxine instantaneously.

As the pioneer's already observed, E·MB is hard to work with in solution as it forms a precipitate.

N.B. I have been interested in the histochemistry of ~~st~~ differential staining since High School, so have an intense deja vu about current experiments.

Sincerely,
Joshua Lederberg

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