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Dear Dr. Lederberg:

Thank you for your letter, I appreciate your interest in my work. Butanol is certainly toxic, however its effect varies very much with temperature. At 42°C, 0.1% n-butanol is lethal whereas at 30°C it takes approximately 1% to kill my strains of E. coli. My mutants have all been tested with butanol using proteose peptone as an alternative carbon source. At 30 or 33° all strains grow on peptone in the presence of 0.5% butanol, at 37° or 42°C this concentration kills them all, irrespective of whether or not they metabolize the butanol. I haven't tested systematically for changes in sensitivity by doing growth rate measurements or varying the butanol in small increments. So some small changes in resistance due to metabolic consumption are possible.

During the course of this work, I tried 3-bromopropanol as a possible suicide analog of butanol. I isolated mutants resistant to this toxic analog and found that they had become dependent. These mutants showed no changes in alcohol dehydrogenase yet their dependency could be satisfied by ethanol or butanol also. I have no idea what these are!

I would like to take this opportunity to ask whether you would be willing to give a special seminar at our university. We have a yearly lecture in remembrance of Maurice Ogur, a previous chairman of microbiology, and we invite distinguished speakers who can give a somewhat broader picture than usual, so that other departments, undergraduates, etc. can benefit. As one of the founders of bacterial genetics, we would be very honored if you would accept such an invitation. The lecture is presented any convenient date within the Fall or Spring semester. We would be delighted if you could come and tell us younger people how it all got started. ✓

Yours sincerely,

*David P. Clark.*

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