## UNIVERSITY OF EDINBURGH

## Telephone 42080

Trof. J. Lederberg, Department of Genetics, University of Wisconsin, Madison, Wisconsin, U.S.A. Biochemistry Unit, Zoology Department, West Mains Road, Edinburgh 9.

October 5<sup>th</sup> 1956.

Dear Frofessor Lederberg.

During the recent conference on antibiotics in hilan, I met Dr. Cavalli, who told me that you had succeeded in making protoplasts of <u>Bacterium coli</u>, and I later saw alcopy of your interesting communication to the N.A.S. on this subject. I would like to congratulate you on the neatness of your method. As you will see from the enclosed copy of a letter to Hature, we have also been trying to make coli protoplasts here, and I thought you might be interested in our observations.

It is an amusing fact that we have for some time been collecting information on the action of penicillin on the synthesis of the components of the cell envelopes of staphylococci and other "penicillin sensitive" organisms and have obtained partial protection of staphylococcal cultures from penicillin in media of high osmotic pressure — which we interpreted as being due possibly to protection of the protoplasts when cell-wall synthesis is deranged; but we did not think of using this method for releasing the protoplasts of <u>Bacterium coli</u>.

I wonder whether the release of coli protoplasts in penicillin-containing media may include autolytic processes.

It would be most interesting to hear your comments and to know about the further developments of your work on this problem.

Yours sincerely,

ts4+ 10th - 14th

Peter Mitchell.