

December 21, 1954

To: Jour. Bacteriology
Concerning: Uetake Ms.

Dear Roger:

Thank you for returning the reviewer's comments. I assume that the paper is, by now, in legible form. I am not sure I would have encouraged Professor Uetake to send this paper, had I realized how much work it would mean, and I doubt if I would do it again. However, it is an important contribution, and equally important that it reach the attention of our colleagues in this country.

I have carefully reconsidered the reviewer's specific comments. On the whole, though they are quite pertinent, I do not think they would warrant returning the ms. to the author. Professor Uetake did give me leave to make any minor changes, and if you feel that further revision is called for, I will have to decide whether I should approve them on my own initiative, or whether to send the ms. back.

The specific points raised by the reviewer have been, in fact, already the subject of some discussion between Professor Uetake and myself. There are some aspects of the analysis that are not complete, including (1) and (2), but I believe (after some previous urging on my own account) that the statements in the ms. do not overstep the bounds of reasonable inference. The same considerations are equally applicable to the analysis of toxigenic conversion in *C. diphtheriae*, and I would say that Uetake has done a rather better job than is represented in the long series of papers in the Journal by several authors (Freeman and Morse, Barksdale and Pappenheimer, Groman). As to (3), I am rather dubious myself, but the issue has been raised by the Japanese authors, and others, and I think it would be better to leave it in. If you conclude otherwise, I think I could properly substitute a briefer version. To summarize, I would judge that the reviewer's comments are pertinent to the issue but, at least for (1) and (2) less at an editorial than at a scientific controversial level.

My own recommendation is therefore that the ms. be accepted in its present form, provide you are satisfied as to its comprehensibility. I am afraid I have gone over it too many times myself to be sure where English runs into Nipponese, and if I do any more am likely to deepen the obscurity. In all seriousness, however, it does seem to me to be in essentially acceptable form now.

Yours sincerely *

and thank you for your Christmas card

Hisao Uetake, Takeya Nakagawa and Toru Akiba

The Relationship of Bacteriophage to Antigenic Changes in
Salmonellas of Group E

This paper has much valuable material and should be published. The revisions that have already been made improve it, but it will still require thorough editorial work. As for contents, some of the experiments are rather primitive but the conclusions appear sound. I am listing below a series of specific comments. In conclusion, since J. Lederberg is ~~the~~ most expert in work of this type, it might be worth while asking for his suggestions too, unless he has already approved this paper.

1 Specific comments: Page 12 B, item IX. (See also page 14, item 4). The logic by which the conclusion is derived is faulty. When the phage was propagated on S. anatum, a high proportion of the cells would be converted and the further conversions would be due to phage derived from converted cells. That is, this observation is the direct consequence of the very high frequency of conversion, and does not in itself distinguish between transduction and obligatory conversion.

2 Page 14, item (5).. This is not very significant, since antigens 15 and 10 can be changed by serum even in naturally occurring strains. Reversion by serum may be a property of the antigen determinants, and the only way to establish the role of prophage in serum effects is to test the serum reverted strains for lysogenicity and, if lysogenic, for the properties of the carried prophage.

3 Page 17, item (13). It is difficult to make sense of this in the absence of the full data, but one suspects that the phage antiserum of Iseki and Sakai probably contained antihost antibody. The whole discussion under item (13) could be eliminated or reduced to a sentence, especially since it concerns results of other authors rather than those reported here.