−10° C., while in the controls the heat regulating mechanism was entirely adequate. This is a preliminary report.

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Action of the Bacteriophage on a Low Temperature Bacterium.

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The demonstration of the existence of a bacteriophage active at low temperatures, on a bacterium which grows well at temperatures of 0.5° C. to 4° C., is of interest in connection with the work of Koser,[1] who reported a bacteriophage active at 55° C., on a thermophilic bacillus. Since studies are in progress in this laboratory on psychrophilic bacteria from those used by Greenfield and Elder,[2] it seemed of interest to us to determine whether organisms capable of growth at low temperatures, the psychrophiles, would also be susceptible to the action of a lytic principle or bacteriophage.

The active lytic principle against this organism was obtained from raw sewage by employing the method of alternate feeding and filtration.[3] The incubation temperature during the experiment was 4° C. The lytic filtrate was found to be very active, as shown by the complete clearing of broth tubes in two days, and large lysed areas on agar slants previously inoculated with the culture. The organism which was used was a true psychrophile, since it grew well at around 4° C. There was also fairly good growth at 20° C. but no growth at all at 37° C. All of the experiments reported in this paper were carried out at 4° C. An electrical refrigerator was used for maintaining a constant low temperature. This work is being continued in connection with the studies on low temperature microorganisms.

This is a preliminary report.

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