

DEPARTMENT OF MICROBIOLOGY

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University of Illinois · 127 Burrill Hall, Urbana, Illinois

*xerox sent
9/24/64*

September 16, 1964

Dr. Joshua Lederberg
Department of Genetics
Stanford Medical Center
300 Pasteur Drive
Palo Alto
California

Dear Josh,

* I have been wondering whether you have given very serious consideration to the development of laser telemetry systems. According to John (Atwood), a gas laser with a 1 meter transmitting telescope would have a beam diameter of about 50 miles at a distance of 10^8 miles. This is ca. 10^{13} times better than 4π transmitters could do. In his opinion, such instruments, including sufficient pointing devices, could be developed within two years.

The telemetry problem as it stands now is a real inhibitor of thought on the Mars program, and a drastic improvement in telemetry might be more worthwhile than all the attempts to make experiments feasible with present means.

I hope we will have a chance to talk things over in October.

With warm regards,

Kim

K. C. Atwood
Professor of Microbiology

KCA:cc

ATWOOD

agreed!

** I haven't but I know several companies are, explicitly for near-Earth. (Perkins-Elmer even ran an "ad" on it!)*