THE UNIVERSITY OF MICHIGAN MEDICAL SCHOOL

DEPARTMENT OF HUMAN GENETICS 1133 E. CATHERINE STREET ANN ARBOR, MICHIGAN 48104

TELEPHONE: ANN ARBOR, 764-5490

June 25, 1969

Dr. Joshua Lederberg Department of Genetics Stanford University Palo Alto, California

Dear Josh:

It's getting harder and harder to come by a good, new idea. Beutler in 1961 attempted to reduce the tendency to sickle in sickle cell anemics by the administration of methemoglobin-producing drugs. He reported that it worked, but unfortunately the drugs had side effects which made the therapy impractical. More recently Sirs (Lancet 1:971)(1963) reported that treatment with carbon monoxide reduced percentage of sickle cells in a patient with sickle cell anemia from 10 to 3. However, Puruggonan and McElfresh (Lancet 1: 79(1964) could not confirm this in two patients, nor did they find any indication of an improved survival time. There has to be a better way.

Best regards,

James V. Neel, M.D. Lee R. Dice University Professor of Human Genetics

JVN:mw