*Aldine Independent School District*
14910 Aldine-Westfield Road
Houston 39, Texas

4/63

~~Office of the Principal~~

Dear Dr. Lederberg,

I sincerely hope you will forgive me for taking up your time but there is a statement in your article "Exobiology: Experimental approaches to Life Beyond the Earth" published in the book Science in Space 1961 that I am having a great deal of trouble interpreting. I am hoping that you would be so very kind as to help me interpret this as it is causing a great deal of concern.

On page 415 the last paragraph speaks of the first gene. There is the sentence which says – "There is some controversy whether nucleic acids were the first genes, partly because they are so complex, partly because their perfection hints at an interval of chemical evolution rather than one master stroke".

Now are they saying that the nucleic acid molecule is too complex to have occured by a gradual ~~combining~~ combining of molecules, or

are they simply saying that they could have occured this way but their complexity indicates a probable interval of chemical evolution. What disturbs me is that it sounds like they are saying that nucleic acids are too complex to have ever occured by a combining of molecules.

Another question I would like to pose now, although not quite as important as the first, comes from the remaining part of your paragraph where you speak of simplified proteins possibly replicating at one time. You follow this with the sentence - "The nucleic acids would be perfections on this theme for replication". ~~We~~ Now are you ~~saying~~ that nucleic acids may have evolved inside the first living organisms or are you simply saying that they evolved from simpler replicating polymers before the first organism ever even existed.

I cannot tell you how deeply appreciative I would be if you would send a short explanation to these two questions, especially the first. Your answer need not be lengthly and I cannot thank you enough.

Sincerely yours
Walter E. Aber
Science teacher