

30th November 1966.

Dr R. W. Holley,  
The Salk Institute for Biological  
Studies,  
P.O. Box 1809,  
San Diego,  
California 92112,  
U.S.A.

Dear Bob,

I'm sorry not to reply more promptly to your letter but it has been difficult for me to make up my mind. I should like to come to the Gordon Conference but on the other hand I promised my wife that we would have our holiday in June this year. After turning it over in my mind I feel that I ought to stick to this. What finally decided me was the realization of how many people in our laboratory would like to come to this year's meeting.

As you probably know Fred Sanger now spends all his time on RNA sequence work. One of his younger colleagues has almost completed the sequence of the 5S RNA from *E. coli*. In addition a group of our own people have started on the two methionine tRNA's, and have got some way with the minor tyrosine tRNA which is altered in certain  $su^-$  strains. Recently Howard Goodman has shown that the alteration is, as we expected, to the anti-codon, the GUA of the  $su^-$  becoming CUA in the  $su^+$  (amber) strain. A preliminary enquiry showed that probably nine people from the laboratory would like to come to the Gordon Conference!

I quite realize that you may not be able to fit in so many. May I suggest that you correspond direct with Fred Sanger and John Smith about who should be invited? (Sydney Brenner won't be able to come) They can give you a fuller and more detailed picture than I have of the work actually in progress here. It was really very nice of you to ask me to organize Thursday evening, but I hope my absence will be compensated by the presence of some of the people who do the actual work.

The only other news is that we now have excellent evidence from our rII genetic work that UGA is a nonsense triplet. (We can turn it into ochre - UAA - with hydroxylamine) Strictly our evidence shows

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that it is "unacceptable" but I have little doubt that is nonsense, and not, for example, cysteine. What it actually does is a mystery. It may chain terminate but wobble would suggest that there should be no tRNA for it. (Of course wobble may be wrong about this.) We don't think it can be (by itself) a punctuation mark for the RNA polymerase because it is no longer nonsense if we phase-shift it.

I'm so glad you've been enjoying La Jolla. I shall be with you in February and look forward to lots of interesting discussions.

F.H.C. Crick.