

Medical Research Council

28th April, 1956

Dear Jerry,

Many thanks for the letter and the reprint. It was nice to hear from you again after so long. The number of Americans in this room has, if anything, increased since you left so that I have now no option but to seek refuge in the States, I leave for a three month trip on Tuesday.

As to the paper it manages to convey, without actually saying so, that other base pairings may occur in DNA. Certainly you do not bring out the fact that the pairing we used is the only good one which fits a perpendicular diad and at the same time allows all base sequences in a simple helical structure. However I don't suppose anyone will be bothered about this.

Alex, Jim and I have a tentative structure for Ochoa's polyadenylic acid (ribose), colloquially called poly A, from which Alex got a fair (but not a good) fibre diagram. One chain, and a 4-fold (or approximately 4-fold) axis. The agreement of the optical transforms into the X-picture is fair, but we may be able to improve it. A better X-ray picture would help. RNA may be a coiled-coil group of these chains.

As to Collagen it looks as though collagen II is correct. I now have coordinates to 0.01 A, and we are doing improved optical transforms, trying to allow for side-chains, water, etc. Meanwhile, Alex and David Davis in Bethesda are calculating the transform on I.B.M. machines, using Bessel functions.

As to your note on polyglycine the majority opinion here is that it is a hoax, on the grounds that no-one would publish a note complaining of lack of details in a Nature letter, and then do exactly the same themselves in the same letter! Perhaps this aspect of your letter escaped you. I shall be interested to see how your calculation compares with ours (I did ours on Bragg's machine, and they were subsequently checked by a computer). The reason we did not give them is because it seems highly likely to me that polyglycine II is a disordered mixture of several structures, and there was not room to discuss this

fully. Alex and I would be very interested to see a copy of your "elsewhere" paper.

We hear that you and Gunther Stent have the True Solution to the Secret of Life.

Yours ever,

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