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Dear Francis,

Many thanks for your letter and comments.

The "close approximation to three" seems to be a definite stereochemical requirement, although the fact that the requirement corresponds closely to a small whole number may be fortuitous. I say this on the basis of results recently obtained with Schramm's polymerised A - protein. This gives diagrams as spotty as TMV but the maxima on layer-lines 3, 6, etc. appear to be truly axial. This I take to mean that the stuff is a pile of discs, thickness 23 Å, each containing 12 units (if it is 12) in place of the  $12\frac{1}{2}$  per turn of the helix, and each rotated with respect to its neighbour above and below by an amount corresponding to one third of a unit. I enclose a print of a bad A-protein photo - I have recently got better ones.

As for potato X, I have always intended to work on it as soon as I can get hold of some. I have asked both Roy and Pirie for it, but got no answer from either. At your suggestion I shall now write again to Roy. It would probably be best, now, to start work on it in the autumn, when I shall have two new people here to share the work.

Caspar has written to me at length about his work, but has not given the reasons why he rejected other possible sign combinations. He is coming over here some time in the summer and wants to work here for a while.

I expect you have heard from Alex that he now intends to come over at the beginning of July and stay about 6 weeks - presumably going to Brussels.

I am beginning to think that the groove is due to a helical array of knobs rather than to a continuous helical ridge.

P.T.O.

It will be nice to be able to discuss all these things again with Jim. I hope we shall all be able to get together some time before Brussels.

Yours