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Dear Thoru

Thanks for your FAX concerning the incorporation of deoxypseudouridine into oligomers. It is certainly true that at least one Ψ in tRNAs - in the T Ψ C sequence is involved in a base triple interaction, i.e. in stabilising tertiary structure. But I have not been following this literature for a long time and do not know how it has ramified.

We synthesised deoxy Ψ a long time ago but Fox at the Sloane-Kettering and others have since done more work. My impression is that it is still not easy to synthesise it - at any rate in quantity. But I do not think that should inhibit some work along the lines you suggest. It would be interesting to look at the various H-bonding possibilities in a double- and a triple-helix. There has been work on pseudoisocytidine (Fox and/or others) and, I think, Steve Benner *et al* recently did some work with deoxypseudoisocytidine. It has two distinct potential H-bonding modes.

Since pseudouridine is produced by a bug a Japanese outfit made lots of it at one time (Fox's source). It may be available in quantity still (but not advertised). We did show that r Ψ \rightarrow d Ψ could be effected, so that might be a way to the latter.

There are quite a number of things re Ψ that we could discuss but it would not be a bad idea if Valeri did a literature scan on materials and methods. I will arrive Worcester p.m. Sunday and be in Hybridon Monday 1 November. Please let Paul know.

All the best,



Dr D M Brown