May 3, 1984

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Dear Hans:

The reviews arrived shortly after I last wrote to you. The gist of the letter from Chambon was that the paper was acceptable but that we needed to respond to the comments carefully. We did so both in a long letter to Chambon and in a revision of the manuscript. We did some analysis of the source of monkeys and the reliability of the classification and concluded that there was little reason to doubt the species designation. The data are firmest for the animals at the NCI colony at Hazelton. Also, the chromosome numbers are a good indication for the animals from MA. The whole classification of the genus is not in great shape; different "standard" and up-to-date references list different numbers of species. By now we've looked at about 20 individuals without finding the same pattern twice (except for the offspring of the cross) and it seems highly unlikely that each of them is a different species. The largest species number given for the genus is 22 although another source says 12.

Regarding the likelihood of interspersion of the sequence accounting for the results, we marshalled the evidence available. It is very strongly against interspersion. There is the in situ hybridization to centromeres, the fact that some 6 base pair cutters leave all the satellite (deca) in very large pieces, the close association with alpha satellite. However, turning the argument around, it could be that there is a sequence interspersed in deca-satellite that accounts for the varying patterns. If that is so, then we might define a domain that includes deca and another sequence, and then we have to argue that that domain is constantly changing, which boils down to the same thing.

It seems clear that R is much more abundant in the mouse genome than the 3' end of Kpn is in primates. Another difference between the families seems to exist. Unlike Kpn sequences which are abundant in nuclear RNA, MIF family sequences are apparently hard to find in most mouse cell nuclear RNA according to a seminar Marshall Edgell gave us recently.

I'm off for two months leave to work on the book hoping to make substantial progress. Have a good summer and send my regards to all.

Sincerely,

Maxine Singer