14th January 1948.

Dear Cappell,

Many thanks for sending me the Scottish OAB data. I wonder if one of these days it will be possible to get $A_1, A_2$ separated, for it would appear so far that when total $A$ is rare $A_2$ may be an exceptionally high proportion of the total. I suppose the low proportion of $A_2$ in Ross and Cromarty compared with the others must be regarded as a chance deviation, unless later studies show a real patch of Os in central north Scotland. What a remarkably high $B$ proportion you have found in the samples from Caithness and Lewis. I wonder when we shall get any scientific reaction to the extremely subversive wave about the population of Scandinavia, which seems to follow from these studies. The Swedes, and more particularly the Norwegians, are on the whole very proud of their association with the roving conquerors of the ninth century or so, who certainly played a big part in shaping modern Europe. I want to know myself whether Scandinavians will accept the facts as they appear from the $A$ to $O$ ratio, or whether national prejudice will be too much to allow them to do so. Anyhow, it ought to lead to more blood group work in Scandinavia.

I too was greatly interested in Mourant's ideas about the Basques, but, if I understand the position right, the high frequency of $r$ may equally be characteristic of the region (Biscay and Spain) and perhaps neighbouring parts of France, and may not be essentially
connected with the Basque language. I am sure that the notion of race mixture as an explanation of human polymorphism in this or in other respects is an extreme oversimplification. E.g., two hypothetical races, one 100% rhesus positive and the other 100% rhesus negative could be used to manufacture two blends, one with 40% and one with 60% rhesus negative. I should then expect that the two blends should remain not very unequal in numbers and geographical distribution, and not very unlike in the diversity of other anthropological characters within the blended races. And all this does not so well with the view that the Basques represent one of these blends and the rest of western Europe, at least, the other. In other cases of polymorphism I doubt if race mixture has ever been used successfully to explain the facts of gene frequency. After all, r must have its maximum frequency somewhere, and presumably somewhere in Europe, so why not northern Spain, the inhabitants of which may reasonably be regarded at least as anciently European?

I rather doubt if, as a non-doctor, I have any claim to advise the trustees on the prize you mention. I agree with you entirely that Race has done more in recent years than anyone else to promote serological studies useful to transfusion.

Thanks also for the offprint on the blood groups of mankind, which I expect to read with pleasure.

Yours sincerely,