

May 9, 1940

Dear Professor Darmois,

I was glad to have your letter of May 4th and to hear that Panse succeeded in seeing you, as he had hoped, on his passage through France.

I shall be very much interested if Delaporte later finds it possible to take up his studies in estimation, and, if he likes, to send me for discussion any data in which he is interested.

I am exceedingly glad to have your suggestions with a view to collaboration in respect of blood grouping. Medical opinion in this country has been very greatly impressed with the high proportion of military and civilian air raid casualties who benefit by blood transfusion, and for a year prior to the war we had in view extensive enrolment of donors, correctly grouped, in advance of the blood being required, also, with a view to large quantities being needed urgently, blood banks have been extensively established in which blood of the four required types can be stored in a cold chamber, in which condition it is supposed to remain good for use for two or three weeks, and perhaps for more. In practice some doctors prefer always to use blood of the same group as the recipient; others are content to apply the rule that O blood may be transfused to all recipients, A blood to A and AB persons, B blood to B and AB persons, while AB blood is only

available for the small AB class.

In order that large numbers of persons shall be grouped, often by doctors not very experienced in serology, or under conditions not ideal for accurate work, e.g., in haste, or in a room on factory premises not always free from dust, it is particularly important that the testing fluids shall be of good quality, powerful, and free from possible contamination. In Great Britain this difficulty has been overcome, I think successfully, by charging the group of serologists formerly at the Galton Laboratory, with the duty of providing tested sera of known strength to officers of the Blood Transfusion Service who apply for it. I am sure that, if it were a convenience, the Medical Research Council, under whom the group now work, would be glad that they should make supplies equally available to parallel officers in France. In return these officers have, for the most part, been good enough to supply data on the numbers of the four blood groups found in the sample of the population examined. It is sometimes important to remind them that these proportions may be vitiated if in their returns they include panels of donors already registered in connection with some hospitals, who have been selected to be of some required type.

The population samples show the numbers of men and women of the four types available for the transfusion service in each district, and it is, of course, of some administrative advantage that these should be made available. When numbers exceeding 1000 are registered in one place, it is also possible to detect, and ultimately to correct, any technical errors which may have entered into the first

test, if these show themselves by abnormal proportions or discrepancies among the numbers recorded. We are still puzzled by some of the technical problems arising in this way, but the value of a prompt statistical analysis of each batch as it comes in has been clearly demonstrated, and must contribute towards minimising the proportion of cases in which the recipient is injured by receiving blood of the wrong type.

Beyond this, the proportions of the four blood groups has a purely scientific, or ethnographic, interest. I enclose a recent letter to "Nature", which we have written as the result of the last years experience, which suggests rather revolutionary conclusions as to the history of the populations of N.W. Europe. It would be of great interest equally if, for example, the Mediterranean and Atlantic aspects of France were associated with differences in the blood group populations. The current medical importance of blood grouping on a large scale at least opens the possibility of detailed ethnographic information which would not otherwise easily be obtained.

I think in the above I have made clear the main lines of thought suggested by our collaboration with the blood group service. I should be most happy if it were possible for M. Halphen to spend some time in my Department studying our methods and becoming acquainted with the kinds of fact that can be determined. It would be splendid, also, if he can take the first steps towards getting made a comprehensive record of the tests made in France.

Yours sincerely