

22nd February, 1952.

Professor R.A. Fisher,
Department of Genetics,
Whittinghame Lodge,
Cambridge.

Dear Fisher,

It is a long time since I have seen you or heard from you. My work in Glasgow has taken me rather out of touch with the active side of blood-group work, though I try to follow it with interest. I am writing to ask if you would be interested to give me your opinion on some figures. You will remember that Levine in 1943, and later Waterhouse and Hogben, produced evidence to suggest that there is a selective loss of Group A infants in the ~~maternal~~ specific pregnancy A x O as compared with the reciprocal mating O x A. I seem to remember that on one of the last times I spoke with you we discussed this and you expressed some doubt - amounting, if I remember aright, to extreme scepticism - and we agreed that it would be highly desirable to get someone at a big maternity unit to group all the mothers, fathers and infants and see what the results were. A former pupil of mine has now done this for 2578 matings (5156 adults and 2596 children of these matings). It was not possible to investigate the previous children in these families, so that we have the ABO groupings carefully done for them all and also the Rh groupings for 1590 matings and 1602 children. I think this last is of no practical importance to the problem of the ABO influence. If you would care to see the complete figures I should be delighted to send them to you, but I do not wish to trouble you with this if you are too busy at present. With regard to the two critical matings, A x O 470 matings, children O 197, A 276, O x A 484 matings, children O 181, A 305, we have thought a little about this and while there is clearly a difference, we thought that the numbers in the A x O are exactly the expected numbers in the two groups, whereas in the O x A there are far too many A children and too few O children, as compared with the expected numbers calculated by the formula given in Waterhouse and Hogben's paper. If you are interested in the matter, we could send you the account of the investigation, which was done in London at my suggestion. Circumstances do not allow it to be as detailed as we would have liked, but we thought that the greater number than in the groups collected by Waterhouse and Hogben might compensate for this.

With kind regards,

Yours sincerely,

D. F. Lannell

	AxO	OxA	
O	197	181	378
A	276	305	581
	473	486	959

$$\chi^2 = \frac{(9649.5)^2 \cdot 959}{473 \cdot 486 \cdot 581 \cdot 378}$$

$$= \underline{\underline{17.687}}$$