Anderson, R. J.

November 16, 1928.

My dear Doctor Anderson:

You will be interested to know that the avian phospholipin gives the same reaction in the rabbit as the phospholipin from the human bacilli. We have some very beautiful preparations of the omentum supravitally stained and then photographed, which will show this. One of the rabbits showed atypical epithelioid cells.

We started to analyse all of our records of the guinea pigs and found that every time we had given any of the phospholipin from H-37 there had been a very great irritation - local abscesses - so we repeated the experiments and got the same thing.

You will remember that when we first began using the guinea pigs it was as a check in connection with the question of possible tubercle bacilli persisting, and we demonstrated completely that there could be no viable tubercle bacilli because the guinea pigs did not give the tuberculin reaction. Of course they did develop epithelioid cells, but when the animals were allowed to live a long time, this tissue was wholly resorbed, showing that there were no tubercle bacilli. The acute irritation we are now studying has to do with whether we introduce any pyogenic organisms or not. Of course the substance is not sterile, but certainly the rabbits take care of any organisms that we introduce without any difficulty. Cultures from the peritoneal cavity of the guinea pigs are negative for organisms, and we cannot stain any in our smears. But to make the point doubly sure, that the phospholipin from the H-37 is more irritating to the guinea pig than the rabbit, we want to ask you this question: Could we dissolve a little of the A-3 in absolute and ether, filter that under sterile precautions, and evaporate to dryness and obtain the A-3 in its original state? That Doctor Flexner suggested as a final test to be quite sure that we are not dealing with any pyogenic infection. Of course we think our best check will come when we use the fatty acid in the guinea pig, because there there will be no possible question of infection.

I think we may be on the track of a very interesting point if it does prove that the A-3 is more irritating to the guinea pigs. The cells that the A-3 produces in the guinea pig are different from those in the rabbit in that they take up

apparently much larger masses of the material, become extremely swollen, and atypical. This, of course, is the beginning of the whole subject of the comparative study of the three strains in the different animals.

The experiments with the sodium and potassium salts are under way and we will report to you as soon as we have any results.

Very cordially yours,

Florence R. Sabin.

Doctor R. J. Anderson,
Sterling Chemistry Laboratory,
Yale University,
New Haven, Connecticut.