

gard to the so-called compliment it is possible that he is right; Bulloch has shown that the compliment can be temporarily increased by the production of a leucocytosis. On the other hand, it seems improbable that the wandering cell is the source of the immune bodies, although this is a question which is still far from settled. It will be seen that in the determination of an active immunity to an infection it is only necessary to stimulate, by repeated injections of the microorganism, the production of the specific immune body. This is what Pasteur did in his anthrax immunization. This is what is done when Haffkine's plague vaccine or cholera vaccine is used as a protection against these diseases, and this is probably what takes place normally in the course of every infection. Indeed, in typhoid fever it has been shown that the immune body begins to appear in the blood about the end of the first week of the disease. But in every case, in order that one may have bacterial destruction there must be a sufficient amount of complimentary bodies, and the means of production of these has not yet been discovered, although, as mentioned above, there seems for some of them to be a connection between their appearance and leucocytosis. In regard to the conditions which will destroy the compliments, however, we know more. It has been shown, for instance, that necrotic tissue will take the compliment out of the blood with great rapidity, and this will appeal at once to the surgeon as explaining many of the facts of experience in regard to the influence of necrotic tissue on the healing of wounds. Work recently done in the hygienic laboratory of the University of Pennsylvania has shown that alcoholic poisoning in rabbits leads to a destruction of the compliment, and in the pathological laboratory of the same University they have found that in certain morbid states, as, for instance, in uræmia the the compliment disappears from the blood, and renders it probable that terminal infections first described by Flexner owe their development to the disappearance of the compliment, with the consequent loss of bactericidal properties of the blood, and consequently a loss of normal immunity. How we are to increase the amount of the complimentary bodies along with the intermediary or immune bodies sufficiently to be able to confer a passive immunity upon an individual by the injection of the blood serum of an immune animal, as has been done in the production of passive toxine immunity in diphtheria, remains as yet the goal towards which investigators are striving.

Perhaps not the least interesting result of these modern investigations upon immunity has been the theories proposed by Ehrlich to account for the facts so far discovered. These theories are the result of the application by Ehrlich of the facts of modern stereochemistry to