through the second to the 'complement' normally found in the serum. He looks upon this 'complement' as having a similar structure to the toxin, viz., an anchoring group, and replacing the toxophore group a 'fermentative' or 'zymogenic' group, which being bound to the bacterial cell through the interposition of the 'bacteriolysin' ferments and disintegrates it.

The formation of the specific antimicrobic or bacteriolytic bodies is explained in exactly the same manner as the formation of antitoxines, i.e., as products of cell activity. The bacterial cellular structure acts in like manner to the toxin, and produces a reactive change in certain cells with whose atom groups there has been a fusion. The immunity which is developed against such infections as cholera, plague and rabies is to be explained mainly by the development of antimicrobic substances in the blood. It has been found that the cells of the body react in a specific manner, not only against bacteria, but even against such substances as the blood of other animals, milk or cellular elements as epithelum or the parenchymatous cells of the various organs. Thus, if we inject a horse repeatedly with the blood of a sheep, the horse's serum when mixed with fresh sheep's blood produces a disintegration of the corpuscles or haemolysis. But the horse's serum will not have this effect on the blood of other animals. The principles just stated are found to apply to all animals tested and have been employed in the diagnosis of human blood. Thus, a solution is made of a suspected human blood stain, and to it is added the fresh serum from an animal (rabbit) immunized against human blood. If the blood is human the corpuscles are precipitated and disintegrated. Nuttal has recently shown that this reaction is constant, though he found the blood of certain monkeys would haemolize like human blood. This test will in all probability soon assume considerable medico-legal importance.

In a similar manner to the phenomena of bacteriolysis and haemolysis it has been found that injections of emulsions of cells of various organs leads to the production of bodies in the blood which disintegrate and destroy these cells (cytolysis) more or less, both in the test tube and in the body. Is it pos-