oculation of vaccines, the curve of active immunity obtained being an indication both as to the suitability of dose and as to the best time for re-inoculating. By this means it has been shown that the dosage of Koch's tuberculin, as originally recommended, is far in excess of what may with safety and benefit be employed. To this fact and to the inexperience of operators may be placed the failures met with in this method of treatment.

Regarding the nature of opsonins, nothing very definite is yet known. Hektoen has shown that opsonins are distinct from other antibodies. This is indicated by the fact that by immunisation, a serum can, in certain cases, be obtained which is opsonic but not lytic, or in other cases, one which is lytic but not opsonic. Similar experiments have differentiated opsonins from agglutinins. If a virulent organism is injected into a susceptible animal, the leucocytes appear to be repelled, and to be unable to deal with the microbe which multiplies and causes the death of the animal. If, however, the suitable immune serum is injected into the animal before inoculation, the phagocytes attack and devour the invading micro-organism. The question arises as to whether this result has been obtained by the action of the immune serum on the phagocytes or on the bacteria. Wright takes the latter view, and supposes that the phagocytes play only a passive role which depends on the preliminary action of the opsonins. He, therefore, defines an opsonin as that substance or that combination of substances which, acting on bacteria, render them more easy of ingestion by the phagocytes.

Normal opsonins are non-specific, but the opsonins elaborated in response to an inoculation with a specific vaccine are highly specific. Therefore, a patient suffering from a bacterial infection should be immunised against that exact organism, when it is possible.

I now propose to indicate briefly the methods used in the preparation and standardisation of vaccines. In the case of tubercle vaccine, Koch's new tuberculin has been used almost entirely. This, as I have already stated, is prepared for the market as a solution of 10 milligrams weight of the dried tubercle bacillus powder in 1 c.c. of 40% glycerine in distilled water. Dilutions of this are then made according to the dose required, the diluting