Chabrie's albumon. This peculiar protein compound of lecithin seems to be absent from the majority of normal serums. Chabrie's albumon develops in any serum heated to coagulation, and renders all serums equally venom activating. Ovovitellin is another form of protein compound containing lecithin in available form for venom. On the other hand, pure serum globulins or serum albumins are not venom activating, notwithstanding their content of alcohol-extractable lecithin. Non-activating serum can be made activating by adding small quantities of oleic acid or oleate soaps.

The degrees of susceptibility of corpuscles are parallel to the amounts of fatty acids which they contain. The absence of fatty acids is associated with total insusceptibility of the corpuscles to the hemolytic agent of venom. The amounts of lecithin extractable from corpuscles are about the same in different bloods and bear absolutely no relation to susceptibility. The addition of adequate amounts of calcium chloride stops venom hemolysis with washed corpuscles of susceptible species. A previous addition of a small amount of lecithin annuls protection by this salt. A small amount of oleic acid or soluble oleate soap, which is insufficient to produce hemolysis alone, can render the corpuscles of insusceptible species hemolyzable by venom. An oily substance can be extracted with ether from the stoma of susceptible corpuscles, but not from the insusceptible varieties. This oily mass is venom-activating but contains no lecithin.

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On the influence of the reaction, and of desiccation, upon opsonins.

By **HIDEYO NOGUCHI.**

[*From the Rockefeller Institute for Medical Research.*]

The non-specific antiopsonic property of certain neutral salts and of lactic acid has been studied by Hektoen and his co-laborers, but the relation of the reaction to the opsonic activity of serum has so far escaped attention. The results of my experiments show that opsonins are most active in neutral reaction. For this the serums of the dog, ox, pig and rabbit were employed. Lacmoid was used as an indicator. The technic was essentially the same as Wright's.

Human leucocytes and staphylococcus aureus were used and the time of incubation was thirty minutes, at 37°C. An alkalinity of the fluid exceeding 1/20 normal KOH prevented the occurrence of opsonization. An acidity of 1/30 normal HCl was sufficient to stop the opsonic function of the serum. Neutralization of the excessive alkalinity or acidity caused reappearance of opsonic activity. On the other hand, an alkalinity or an acidity approaching that of the normal alkali or acid produced a condition of irreversibility of the inactivation. The opsonic index estimated in the usual alkaline reaction of normal serum is far lower than that in a neutral medium.

The high stability of opsonins against desiccation and the high thermostability of dried opsonins are very striking. Almost no reduction of opsonic strength is experienced after a serum is completely dried at 23°C. within a few hours. In dry state opsonins are well preserved even after two years. Dried serums of crotalus, ox and horse gave positive results in this regard. The temperatures of 100°, 120°, 135° and 150°C. do not destroy opsonins in the dry state. At 150°C. the serum becomes difficult to dissolve, but opsonins may still be detected in it.

Complements withstand desiccation and dry heat in a manner similar to the resistance of opsonins.

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On decomposition of uric acid by animal tissues.

By **P. A. LEVENE** and **W. A. BEATTY.**

[*From the Rockefeller Institute for Medical Research.*]

About two years ago in a communication before this society we indicated the most favorable conditions for the decomposition of uric acid by tissues.

Several papers on the same subject have recently been published in which it was demonstrated that uric acid may suffer decomposition through the action of tissue extracts in the presence of dilute sodium bicarbonate.

This confirms the results in our previous paper. In our recent work uric acid was subjected to the action of splenic pulp in the presence of 2 per cent. ammonium hydroxide and 2 per cent. acetic acid.