of serum globulin seems to promote the appearance of dialyzable substances, probably on account of the digestion of the globulin by the serum ferment.

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## Studies on so-called protective ferments. V. The serum is the source of dialyzable substances.

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In the experiments related above I have shown that the serum of a pregnant individual, placed in contact with placenta at 0° temperature and separated from the placenta by subsequent centrifugation, is capable of giving up dialyzable substances if placed in the incubator. Assuming that the cells of placenta were centrifuged down, the only explanation for the appearance of amino acids and polypeptids in such a serum was that the serum acquired the ability to digest itself. The fact that the addition of fresh placenta to such serum does not increase the degree of dialysis on the one hand, whereas on the other addition of serum globulin increases it very markedly—points toward the correctness of this assumption.

Some experiments conducted in my laboratory at present with placenta as well as with bacterial substrata will prove definitely that the substratum is not the source of dialyzable substances in the Abderhalden test. While these experiments are still in progress, I tried also to see if my assumption of the auto-digestion of serum in the Abderhalden test will hold good in the case of syphilis, for if the dialyzable substances should appear in this case, there will be no doubt as to their source, as the substratum in this case is not of protein nature.

As it was to be expected, the sera of syphilitics, when brought into dialyzing thimble with suitable amount of pure lipoid, often gave positive Abderhalden test, while sera of normal individuals, treated in similar way gave most often negative results. The adjustment of the amount of lipoid to be used in this test is very

important, as the excess of it may by simple adsorption cause non-specific reaction, just as in the Wassermann test, the improper dose of antigen may cause the fixation of the complement in normal cases. The number of experiments with this test is as yet too small to give a definite idea of its usefulness as compared with the Wassermann test for instance (and some of the results seem to show that the reaction can be missed even more easily than the Wassermann reaction in treated cases) but, what is important in connection with my previous work on the Abderhalden test, it shows that in the cases where this reaction is present it is the serum of the patient and not the substratum which offers the source of dialyzable substances.

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## The effect of the pituitary on the isolated human uterus. (Preliminary communication.)

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Kehrer claims that an extract of the posterior lobe of the pituitary gland is the ideal ecbolic. Indeed, he goes so far as to suggest that the secretion of this portion of the gland is the hormone which induces labor.

In studying the effects of pituitary extracts on isolated human Fallopian tubes and uteri my attention was arrested by the difference in the response of the non-pregnant and parturient organs. The contractions of the parturient tube and uterus were invariably increased in rate and strength when extracts of the gland were applied. The same stimulation was found when an ectopic tube was studied.

The effect of pituitary on the non-pregnant tube or uterus is wholly different. Small doses usually have no effect. Large doses, such as produce marked stimulation of the pregnant uterus, may cause a very definite depression or they may not influence the movements at all. To what is this change in the response of