solution containing insulin than in the one where no insulin was present. This amounted only to a difference of about 10 to 15 per cent of the original glucose after nineteen hours with yeast, and since the result was not duplicated with other samples of insulin we may assume that it was not due to the insulin itself.

The failure of insulin to exert any influence upon the rate of destruction of glucose by yeast would seem to furnish evidence in favor of the view that the action of insulin is not upon the glucose molecule itself. Were the glucose molecule altered through contact with the insulin it would seem probable that an alteration in the rate of fermentation should be detectable even though the change produced by the insulin were only in the nature of a shift in equilibrium in the α, β and γ glucose molecules present.

We are indebted to Professor S. R. Benedict, at whose suggestion the experiments were undertaken.

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Studies of the physiological behavior of glyceryl tri-margarate (Intarvin). 1. Tests of the effects of Intarvin, in successive generations of albino rats, when added to balanced natural diets.

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On August 2, 1923, we began two independent series of feeding experiments on albino rats (in tests continued through successive generations), to determine whether or not Intarvin, added to an ordinary balanced laboratory diet, in quantities ranging from five to twelve per cent of the total daily food intake, would induce any evidences of toxicity.

Eight normal female rats from one litter were originally separated into groups of four. One of two males, of practically the same size and vigor from an unrelated litter, was added to each of these two groups. One group received a balanced natural diet with a definite proportion of Intarvin mixed with the meat ration. The other group received the same natural diet under

identical conditions, with rendered lamb fat instead of Intarvin added to it. In each successive generation, thereafter, the maternal rats that received Intarvin were selected from the direct descendants of those that had previously been given the "intarvinated" diet. The control maternal rats in each generation in a series were selected from the direct descendants of those that received a diet containing an addition of lamb fat. The paternal rats in each generation (unrelated to the females) were selected on the same dietary basis as that for the maternal, or from litters on the ordinary diet without addition of fatty matter.

Rats have been carried, in this parallel way, into the fourth generation in one series and into the third generation in another. (The experiments are in progress; and litters in the fifth and fourth generations, respectively, will soon be available.) There has been no discernible effect on the animals thus treated, or on their fecundity. The animals in the third and fourth generations appear to be as completely normal as those with which the tests were started last August.

The tissues of many of the rats have been used in studies of the absorption and distribution of glyceryl tri-margarate. These results, with those of various extensions of the study, will be reported later.

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The effect of light doses of alcohol upon the estrus cycle, and on the number of corpora lutea and prenatal mortality in the mouse.

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Stockard and Papanicolaou, Arlitt, Stockard, Hanson, MacDowell[1] have found that alcohol may cause partial or complete sterility in laboratory mammals.

[1] Stockard, C. R., and Papanicolaou, G. N., *J. Exp. Zoöl.*, 1918, xxvi, 119; Arlitt, A. H., *Psychol. Monog.*, 1919, xxvi, —; Stockard, C. R., *Proc. Amer. Phil. Soc.*, 1923, lxii, 311; Hanson, F. B., and Handy, V., *Amer. Nat.*, 1923, lvii, 532; MacDowell, E. C., *Genetics*, 1922, vii, 117, 427, *J. Exp. Zoöl.*, 1923, xxxvii, 417.