cessive transfers of rabbit testicles originally inoculated with blood from rheumatic fever patients, and from normal rabbits are identical; and that the virus inciting these lesions is of rabbit origin. Its identity with the virus discovered by Rivers and Tillett seems also to be established; these authors on other grounds have already suggested a possible rabbit origin.[1, 2] These facts must be kept in mind in undertaking any future work in which this technique is used, as well as in interpreting past work in which the method of testicular transmission of the so called filtrable viruses has been employed.

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The prevention and cure of rickets by means of bile.

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Since it has now become well established that cod liver oil prevents and cures rickets, the question naturally rises whether products of mammalian liver, in particular, bile, might not exert a similar action. The bile used was freshly obtained gall bladder bile from the pig. The animals used in the experiments as test subjects for the effects of bile were rats about 32 days old. The rats were divided into two groups.

In group I bile was added to the diet No. 3143 used by McCollum, Simmonds, Shipley, and Park[1] for the production of rickets in the rat.

The diet with the bile added was then fed for a period of 35 to 36 days with the object of determining whether the bile would prevent the development of rickets. In group II the rickets producing diet without the addition of bile was fed for 35 days, by which time, as is now well known, well marked rickets develops in the rat. At the end of that time bile was added to the diet

* Introduced by Edwards A. Park.

[1] McCollum, E. V., Simmonds, Nina, Shipley, P. G., Park, E. A., *J. Biol. Chem.*, 1921, xlvii, 507.

and the diet plus the bile fed for 15 days. The idea was to determine if bile would exert a curative action on rickets already established. The rats on the diets containing bile were abundantly controlled by rats on the same diet without the addition of bile.

The following results were obtained:

Group I. 7 cc. of pig bile per day prevented the development of rickets. On gross examination of the animals the bones were found normal. On microscopic examination the cartilage proved completely calcified. In the case of some animals, however, the trabeculæ showed here and there traces of osteoid in excess of the normal. 3 cc. of pig bile per day did not completely prevent the development of rickets. 1 cc. exerted a well marked inhibitory action but did not prevent the development of the condition.

Group II. 7 cc. of pig bile per day completely cured rickets when fed for a period of 15 days. 5 cc. and 2.5 cc. of bile per day did not completely cure the rickets. 5 cc. of bile exerted a manifestly greater curative action than 2.5 cc.

The controlled rats all showed rickets.

Further experiments on the effect of bile in the prevention and cure of rickets are now in progress and will be reported later.

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Hyperplasia in the brain of amblystoma.

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An experimental study of the effect on the brain of *Amblystoma* of the transplantation of an additional nasal placode has given some rather curious and interesting results. When a right nasal placode from an *Amblystoma* embryo is transplanted into the reentrant angle between the optic cup and nasal placode of a host, there results either complete fusion, partial fusion, or the maintenance of complete integrity of the two placodes. When the union is more or less complete, a majority of the experiments show an augmentation in size of the olfactory nerve through the