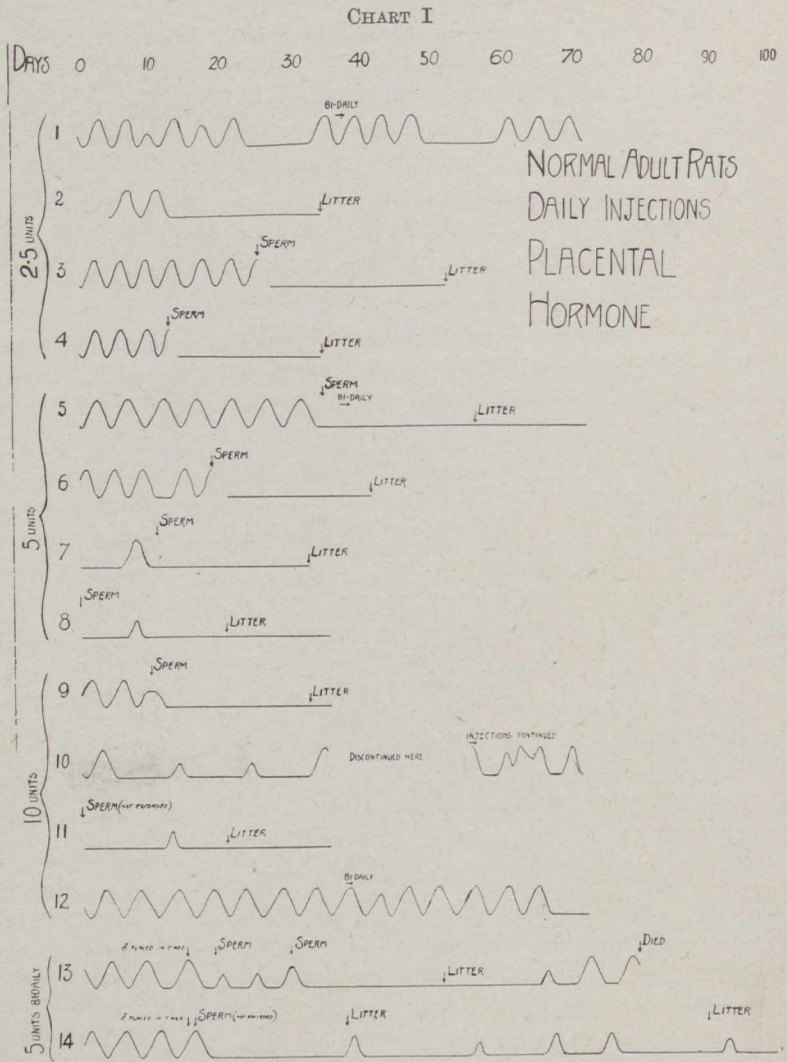Normal rabbits and dogs, both male and female, have been injected daily with varying amounts of the active extract, up to 100 rat units in the case of rabbits and 200 rat units in the case of dogs, and frequent blood chemistry studies have been made on such animals up to one month. Apart from slight to moderate increases in the cholesterol content, which, however, we hold to be a non-specific action, nothing of significance has been observed in the chemistry of the blood.

Normal female dogs and rabbits have not manifested any appreciable degree of hypertrophy of the ovaries when treated with the hormone. It is of interest to note that in such animals there has been no sign of luteinization of the ovaries, which on section have been found to be very rich in follicles in various stages of development (Figs. 1 and 2).
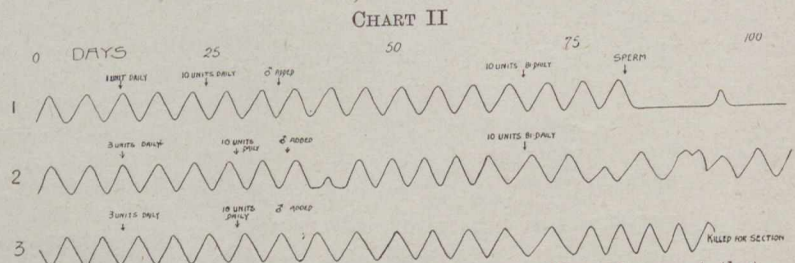
We have noted that immature rats which have been brought to a state of premature maturity by the treatment with the hormone commence at once, as a rule, to manifest the cyclic changes. This has occurred both in animals receiving the usual assay treatment and in others which have been injected daily for several weeks.

We have recovered sperm in a great many instances from the vagina of treated immature rats and have many examples of successful impregnations, associated with normal gestation, birth, and the rearing of litters. In no case, however, has impregnation occurred coincident with the first cycle. The earliest instance of impregnation which we have observed has been the third cycle, and here the young were born on the 62nd day of life of the mother. Some of these young mother rats have had difficulty in adequately nursing their young, while others have reared average weight litters. Since the purified hormone has been used we have not observed the formation of corpora lutea in association with the first cycle. These may be observed at later cycles, however, and one is tempted to associate failure of impregnation in our experience at the

CHART I

Showing the effect of daily or bi-daily injections of placental hormone into normal adult female rats caged with males. The unit used here was the equivalent of one gram of fresh human full term placenta.

CHART II

A similar experiment to that illustrated in Chart I, except that preliminary control periods are shown. Rat No. 3 had normal ovaries.