The problem of the influence exerted by the ovary upon metabolism has been studied by a number of authors, but no definite conclusions have yet been reached. In recent years the rôle of the sex-cycle has been considered, and various studies of the relation between the œstrous cycle and metabolism have been undertaken. Apart from the indirect influence, which is due to the increase in the spontaneous activity (Slonaker, 1925), such as is observed in the mouse or rat during œstrus as an effect of ovarian hormone, an influence of the ovarian function upon basal metabolism appears to exist, but no