

Morphogenesis and functions of mammalian reproductive organs

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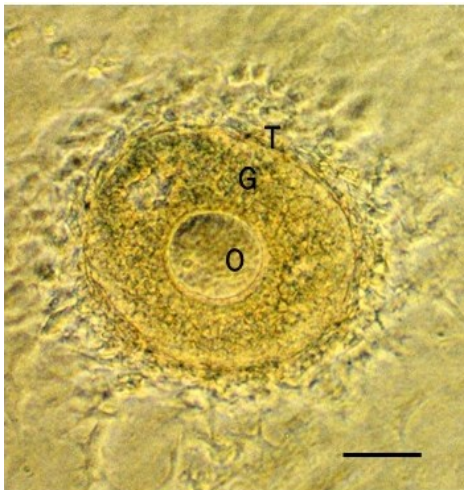


Fig.1 Follicle growth in 3-D culture. O: Oocyte, G:Granulosa cell, T: Theca cells, Bar:100µm.

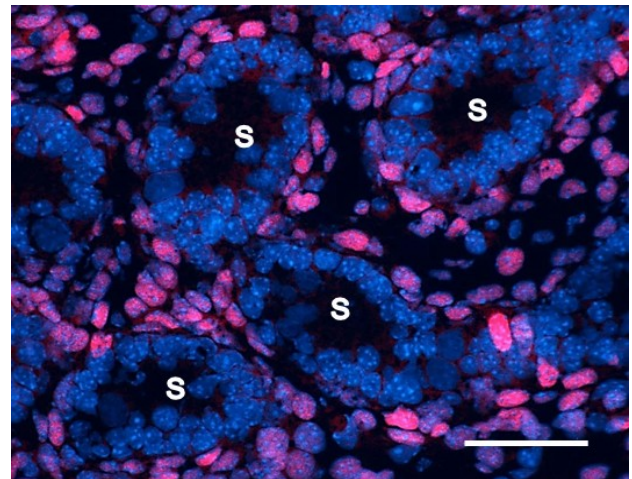


Fig.2 Precursor Leydig cells in the mouse testis. They showed androgen receptor expression. S: Seminiferous tubule, Bar:50µm.

Follicle growth: In mammalian ovaries, an oocyte grows, forming a unit, ‘follicle’. Follicular cells, granulosa cells and theca cells, bring up an oocyte and lead it ovulation. Their proliferation and differentiation are important in the oocyte maturity. In addition, the number of ovulating oocytes is fixed by species, therefore, it has been proposed that the system of follicle selection might operate in ovaries.

Origin and differentiation of Leydig cells: In mammalian testes, Leydig cells in testes secrete androgen that develop the secondary sex characters at puberty. The origin and the mechanism of differentiation of Leydig cells remain unclear.

We are now in the middle of elucidation in regards of these theme.

Keywords : Ovary, Testis, follicle growth, follicle selection, Leydig cells