

The number and steroid-producing activity of follicle cells around various stages of oocytes in *Rana tigerina*

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The numbers of follicle cells (FCs) of *Rana tigerina* counted by scanning electron microscopy (SEM) increased with the oocyte growth. The oocytes with diameters range of 0.8, 0.9, 1, 1.1, 1.2, 1.3, 1.4, 1.5 and 1.6 mm were surrounded by 9430 ± 573 , 13127 ± 670 , 17185 ± 986 , 18571 ± 1356 , 19730 ± 3121 , 21049 ± 3019 , 25160 ± 406 , 28668 ± 1075 , 36566 ± 1152 FCs, respectively. Approximately, each oocyte was surrounded by 4.6 ± 0.5 FCs per $1000 \mu\text{m}^2$. Steroidogenesis by both control and frog's pituitary homogenate (FPH)-treated ovarian follicles

cultured for six hours were studied by measuring the amount of 17β -estradiol (E_2) and progesterone (P) present in both the medium and follicles by radioimmunoassay (RIA). Previtellogenic follicles (stages I and II) secreted very low levels of these two steroids in both the control and in FPH-stimulated follicles. Vitellogenic follicles were active in secreting E_2 , with the highest level of E_2 in stage IV follicle (53.5 pg/ follicle). In contrast, full-grown follicles (stage VI) secreted much more P (52.7 pg/ follicle) than previtellogenic and vitellogenic follicles.

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