of p27kip1 and p57kip2 was gradually increased during in vitro decidualization of ESC induced by steroid hormones.

Conclusions: These results suggest that p57kip2 may play an important role in endometrial proliferation and differentiation, in growth inhibition of malignant glandular cells, and in decidualization of stromal cells by steroid hormones during the late secretory phase.

P-7 The Expression of p57kip2 in Mouse Testis During Postnatal Development and Adult Human Testis with Various Defects

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Background & Objectives: Regulation of cellular growth and differentiation through the activation and inactivation of different cyclin-Cdks (cyclin-dependent kinases) at appropriate times is needed for normal development of testis. This study was to investigate the expression of CDK inhibitors, p57kip2 during the postnatal growth and differentiation of mouse testis, and in adult human testis with various defects.

Method: The expression and localization of p57kip2 was assessed by semi-quantitative RT-PCR and immunohistochemistry in mouse testis during post natal development. And localization of p57kip2 was exained by immunohistochemistry in adult human testis with verious defects, which are non-obstructive azoospermia, spermatogenic hypoplasia, Sertoli cell-only syndrome, and testicular cancer.

Results: mRNA expression of p57kip2 was higher in immature (7 and 14 days after birth) testis than pubertal (28 days) or adult (50 days) mouse testis. In 7 days mouse testes, moderate p57kip2 immunoreactivity was largely found in spermatogenic and somatic cells in the seminiferous tubules. In 14 days mouse testes, intensive immunoreactivity of p57kip2 was found in spermatogonia. In pubertal mouse testes, p57kip2 immunoreactivity was very strong in nucleus of some spermatogonia and Leydig cells. Also in adult mouse testes, intensive immunoreactivity of p57kip2 was found in nucleus of some spermatogonia and Leydig cells. In normal human testis, very intensive immunoreactivity of p57kip2 was found in nucleus of many spermatogonia. Also in non-obstructive azoospermic testis, some spermatogonia were strongly stained. In seminiferous tubule of spermatogenic hypoplasia, p57kip2 was weakly expressed in some spermatogonia. However, in the seminiferous tubule of Sertoli cell-only syndrome and testicular cancer patients, there was no visible sign of p57kip2 expression.

Conclusions: These results suggest that the role of p57kip2 might be required for the postnatal development of mouse testis and that p57kip2 in human testis is involved in the differentiation of spermatogonia, and in growth inhibition of malignant germ cells.