

## Reproductive Medicine

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Spermatogenesis is a complex process, which include especially the quality and the quantity of the communication between the nursing cells, Sertoli cells and germ cells. It is also responsible for healthy and enough number of spermatozoa production for the fertilization, continue with germ cell communication by gap junctions in vivo. In this process, blood-testis barrier (BTB) integrity and its maintenance are important factor. In our previous studies, we showed that ezrin and fascin 1 proteins play a role with focal adhesion kinases (FAK) and actin filaments in the ectoplasmic specialization of the BTB reorganization which regulate the spermatogenesis process and in the Sertoli cell culture, after silencing of ezrin and fascin 1, formation of tunneling nanotubes and F-actin together between Sertoli cells were disturbed. In this study, visual data analysis of Sertoli germ cell nanotunnel formation and actin expression, gene silencing and EA application using FAK siRNA, confirmation of mRNA levels, cell viability test and expression of ezrin, fascin 1 and FAK proteins associated with immunofluorescence staining were evaluated. In the control groups, the number of nanotunnel occurrences increased at the 6th hour and 40th hour during the culture period.

## Biography

Asoc. Prof., Ph.D., Embryologist, Medical School, Head of the Histology and Embryology Department. We are working on co-culture dynamics. Drug development for prostat cancer via

mitochondrial pathways. Sertoli-Sertoli and Sertoli-germ cell interactions.

Tunneling nanotubes via tracking actin bundling proteins.