



Wednesday, April 4, 2018

LSC 3 | 12:00 - 1:00PM

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“Internalization of ‘intact’ intercellular junctions in the testis by clathrin/actin-mediated endocytic structures – Tubulobulbar complexes”

Sertoli cells of the mammalian seminiferous epithelium form unique subcellular actin/clathrin-related structures at intercellular junctions. The appearance of these so called ‘tubulobulbar complexes’ (TBCs) precedes both sperm release at the apex of the epithelium and the movement of early spermatogenic cells out of the spermatogonial stem cell niche at the base of the epithelium. TBCs are considered to be part of the mechanism of junction endocytosis by Sertoli cells. In this seminar, I will review the current state of knowledge about the structure and function of TBCs. The morphology and composition of TBC indicates to us that the structures likely evolved from the basic clathrin-mediated endocytosis mechanism common to cells generally, and along the way they incorporated unique features to accommodate the cyclic turnover of massive and ‘intact’ intercellular junctions that occurs during spermatogenesis.

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