Practical 10: Histology of the Male Reproductive Tract

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Objectives
1. Gain an overview of the microanatomy of the male reproductive system.
2. Undertake a microscopical examination of the testis, epididymis, vas deferens, seminal vesicle, prostate gland, penis, and sperm. The functional significance of the various histological structures identified will be discussed.

Virtual Slide Box
The virtual histology slides for this practical can be found at: http://vslides.unsw.edu.au/

Virtual Slides: Testis and Rete testis
- Identify the tunica albuginea. What type of tissue resides here?
- Identify the mediastinum testis and the rete testis.
- What is the function of the rete testis?
- Identify a seminiferous tubule and locate within it; spermatogonia, spermatocytes, spermatids, and Sertoli cells. Name a function of a Sertoli cell?
- Locate blood vessels in the connective tissue septa.
- Identify the interstitial cells of Leydig and give their function.

Virtual Slides: Efferent ductules and Epididymis
- Identify the efferent ductules and epididymis.
- What type of epithelium lines the efferent ductules and epididymis and what surface specialisation is present?
- Name one function of the epididymis.

Virtual Slide: Vas deferens
- Identify the epithelium and muscle layers.
- What structures reside in the lamina propria (proper layer)?
- What structures reside in the adventitia (outer layer)?
- What is the function of the vas deferens?
Virtual Slide: Seminal vesicle

- Identify the epithelium and muscle.
- What is the function of the paired seminal vesicles?

Virtual Slides: Prostate glands (adult). Also an infant prostate gland and a prepubescent prostate gland.

- Identify the prostatic urethra, prostatic glands, prostatic concretions and stroma.
- What type of epithelium lines the prostatic urethra?
- Name 2 products produced by the prostate gland and what are their functions?
- Observe the increase in prostatic glands with age.
- Notice that the prostate gland is encapsulated and what is the clinical significance of this in prostatic carcinoma?

Virtual Slide: Penis

- Identify the urethra, corpus spongiosum, corpus cavernosum, mucous glands of Littre, blood vessels and nerves.
- What type of epithelium lines the penile urethra?
- Identify the cavernous sinuses and tunica albuginea.

Virtual Slide: Sperm

- Identify the head, midpiece and tail of an individual sperm and present individual functions of these structures.

Additional resources to support this practical and help with revision are:

Prescribed Textbook:

Computer resources
1) “Access Medicine, the medical education resource for on-going study, review, and reference. Access via UNSW Library, Access Medicine Link
2) Fabric of Life program on the desktop of student computers.