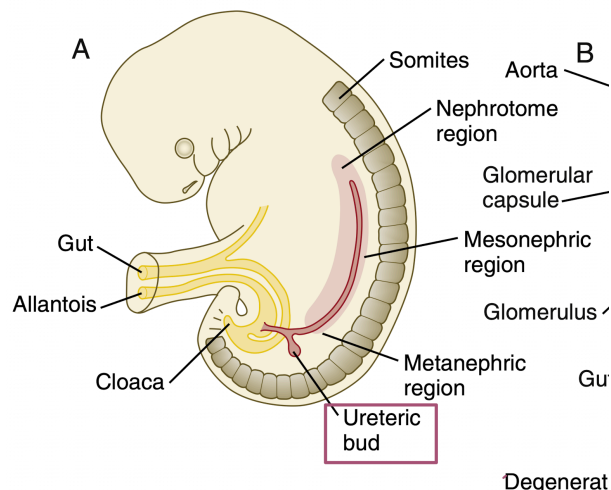


1. During the 5th week of development, each mesonephric duct sprouts this side branch.

答案: the ureteric bud

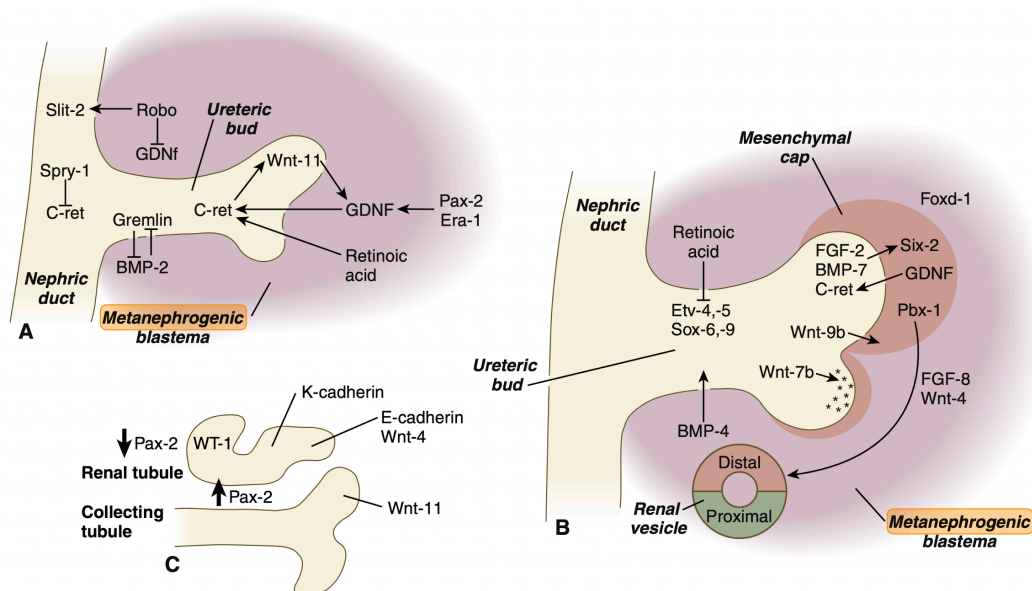
解析: Very near its attachment site to the cloaca(泄殖腔), the mesonephric duct develops an epithelial outgrowth called the ureteric bud (P358最后一段话 P359 的第一幅图)



2. This side branch gathers around its tip a cluster of mesenchymal cells called ?

答案: Metanephric Cap

解析: ppt里和书的图里的metanephric blastema 和题目里的metanephric cap 是一个东西。。。这题挺无语的 (P361)

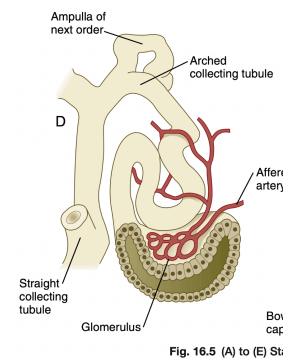


**Fig. 16.4** Molecular basis for the early formation of the metanephros and ureter. (A) Early induction of metanephros. (B) Branching of ureteric bud. (C) Early tubule formation. FGF, Fibroblast growth factor; GDNF, glial cell line-derived neurotrophic factor; LIF, leukemia inhibitory factor.

3. This structure is a tangled knot of renal capillaries?

答案: glomerulus

解析: 书上P362 有glomerulus发展的全过程 这里就放一张图

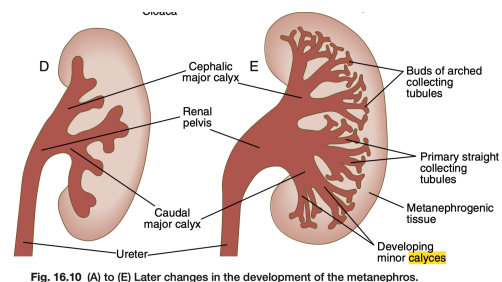


4. These are funnel shaped tributaries of the renal pelvis.

答案: calyces

解析: The branched system of ducts also becomes much larger and more complex, and it forms the pelvis and system of calyces of the kidney

(文字P363 图P365)



5. The kidneys ascend to the lumbar region during these weeks of development?

答案: 6-10 weeks

解析: As the fetus develops, the torso elongates and the kidneys rotate and migrate upwards within the abdomen which causes the length of the ureters to increase. Migration occurs during the 6th to 10th weeks of development.

6. The metanephric kidney begins to produce 'urine' during this week of development.

答案: week 10

解析: First functional units appear after 10 weeks of development.

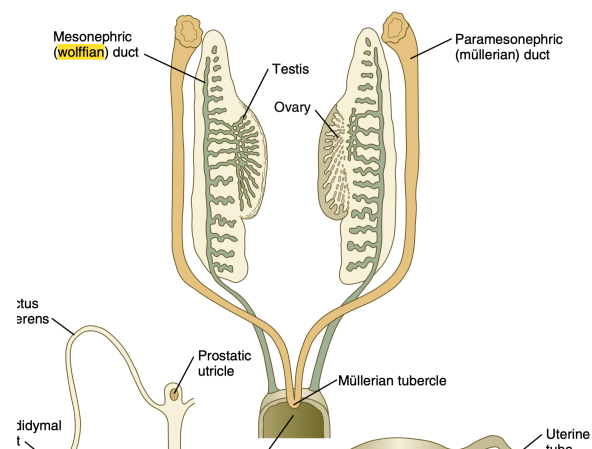
7. What is the mesonephric duct also known as?

答案: wolffian duct

解析: Each mesonephric tubule empties separately into the primary nephric duct, known as the mesonephric (Wolffian) duct.

The indifferent sexual duct system consists of the mesonephric (wolffian) ducts and the paramesonephric (müllerian) ducts

(文字P358 图在P378)



8. Where is the gene *SRY* normally expressed?

答案: Male Genital Ridge

解析: In males, transcripts of the Sry gene are detected only in the genital ridge just at the onset of differentiation of the testis

9.Which cells secrete Anti-Mullerian Hormone?

答案：sertoli cells （ppt原话这个没有解析）

10. In male embryos the paramesonephric duct is destroyed during these weeks?

答案：8-10 weeks

解析：给大家看一张书上372的图 一目了然

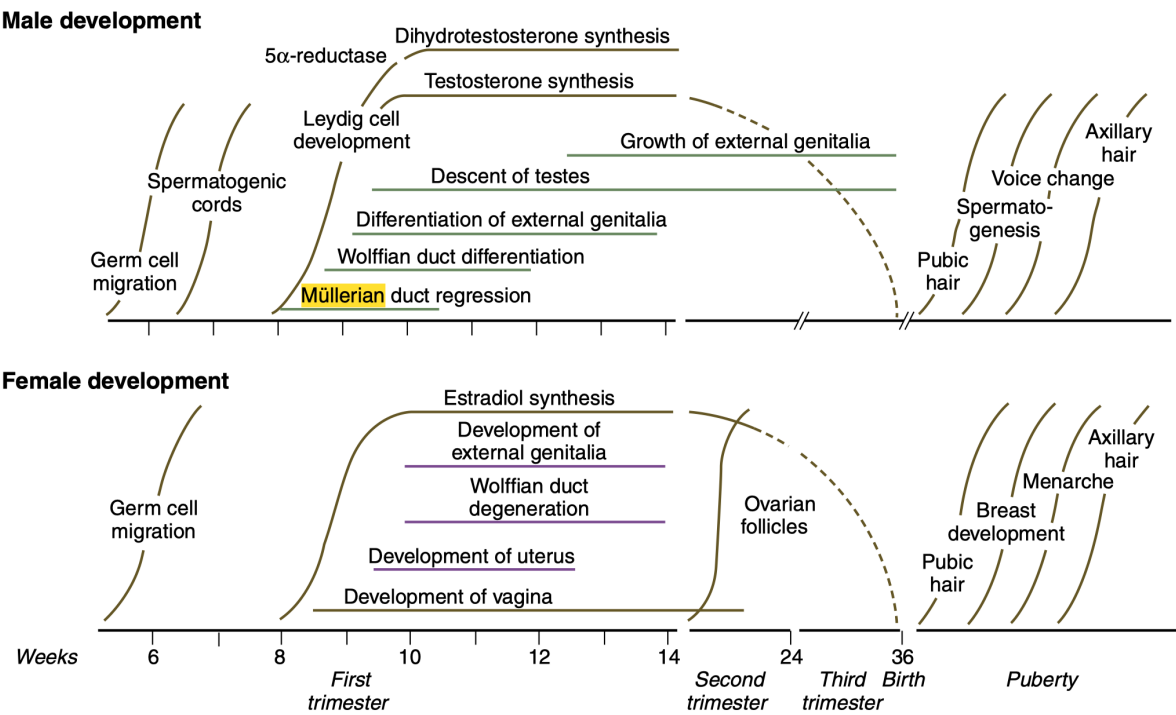


Fig. 16.23 Major events in the sexual differentiation of male and female human embryos.

11. Which enzyme converts testosterone to dihydrotestosterone?

答案：5-Alpha Reductase （ppt原话 没有解析）

12. In females, Gartner's Cysts are remnants of which tissue?

答案：mesonephric ducts

解析：The caudal part of the mesonephric ducts is often seen in histological sections along the uterus or upper vagina as Gartner's ducts. Portions of these duct remnants sometimes enlarge to form cysts. （p377的table P381的图 P388的文字）

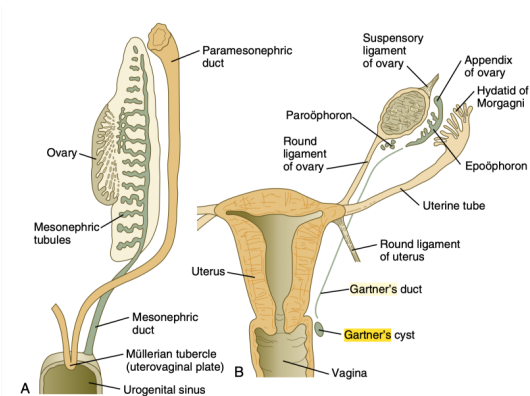


Fig. 16.34 Development of the female genital duct system. (A) At the end of the second month. (B) Mature condition. (Adapted from Sadler T. Langman's Medical Embryology, 6th ed. Baltimore: Williams & Wilkins, 1990.)

TABLE 16.2 Homologies in the Male and Female Urogenital Systems		
Indifferent Structure	Male Derivative	Female Derivative
Genital ridge	Testis	Ovary
Primordial germ cells	Spermatozoa	Ova
Sex cords	Seminiferous tubules (Sertoli cells)	Follicular (granulosa) cells
Mesonephric tubules	Efferent ductules	Oöphoron
	Paradidymis	Paroöphoron
Mesonephric (wolffian) ducts	Appendix of epididymis	Appendix of ovary
	Epididymal duct	Gartner's duct
	Ductus deferens	
	Ejaculatory duct	
	Seminal vesicles	
Mesonephric ligaments	Gubernaculum testis	Round ligament of ovary
		Round ligament of uterus

