

## KEY:

**Red Highlights:** Changes to be made to DB ontology based on differences with ontology in flat files (for Editorial Office Use Only)

**Red text:** Changes to be made to DB ontology that were unable to be made during last ontology update (for Editorial Office Use Only)

**TS21 urinary and reproductive systems (13dpc)**

EMAP:25786	mouse
EMAP:4908	organ system
EMAP:4909	visceral organ
EMAP:5500	urinary system
EMAP:5502	mesentery
EMAP:29611	rest of mesentery
EMAP:5503	urogenital mesentery
EMAP:5504	metanephros (syn: kidney)
EMAP:27715	renal capsule
EMAP:27722	nephrogenic zone
EMAP:5512	nephrogenic interstitium (syn: peripheral blastema)
EMAP:27736	cap mesenchyme (syn: condensed mesenchyme)
EMAP:27743	pretubular aggregate (syn: pretubular condensate)
EMAP:27750	ureteric tip (syn: ureteric ampulla)
EMAP:31046	ureteric tree terminal branch excluding tip itself
EMAP:27680	renal vesicle (syn: epithelial vesicle; stage I nephron)
EMAP:31701	renal connecting segment of renal vesicle
EMAP:31837	distal renal vesicle
EMAP:31732	proximal renal vesicle
EMAP:27683	comma-shaped body
EMAP:27686	upper limb of comma-shaped body (syn: distal limb of comma-shaped body)
EMAP:27689	lower limb of comma-shaped body (syn: proximal limb of comma-shaped body)
EMAP:31718	renal connecting segment of comma-shaped body
EMAP:27757	s-shaped body (syn: stage II nephron)
EMAP:27759	renal connecting tubule of s-shaped body
EMAP:27761	distal segment of s-shaped body (syn: upper limb of s-shaped body)
EMAP:27763	medial segment of s-shaped body (syn: mid-portion of s-shaped body)
EMAP:27765	proximal segment of s-shaped body (syn: lower limb of s-shaped body)
EMAP:27767	visceral epithelium
EMAP:27769	parietal epithelium
EMAP:27771	capillary loop renal corpuscle (syn: renal corpuscle of the stage III nephron)
EMAP:27777	associated interstitium
EMAP:27775	parietal epithelium
EMAP:27781	presumptive endothelium of renal corpuscle
EMAP:27779	presumptive mesangium
EMAP:27773	visceral epithelium (syn: podocyte layer)
EMAP:27783	renal tubule (syn: renal tubule of capillary loop nephron )
EMAP:27785	early proximal tubule (syn: early proximal tubule of capillary loop nephron)
EMAP:27787	anlage of the loop of Henle
EMAP:27789	early distal tubule (syn: early distal tubule of capillary loop nephron )
EMAP:27791	renal connecting tubule (syn: renal connecting tubule of capillary loop nephron )
EMAP:27793	renal interstitium
EMAP:31280	renal fibroblasts
EMAP:31275	resident macrophages (syn: renal monocytes)
EMAP:31272	nephrogenic interstitium (syn: peripheral blastema)
EMAP:31278	rest of renal interstitium
EMAP:27796	developing vasculature of metanephros
EMAP:28406	ureteric trunk (syn: ureteric stalk)
EMAP:5507	pelvis
EMAP:28379	renal artery
EMAP:29996	endothelium of renal artery
EMAP:30004	smooth muscle layer of renal artery
EMAP:28383	renal vein
EMAP:30012	endothelium of renal vein
EMAP:30020	smooth muscle layer of renal vein
EMAP:5509	ureter

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EMAP:28585			urothelium (syn: transitional epithelium)
EMAP:28589			superficial cellular layer (syn: umbrella cell)
EMAP:30027			deep cellular layer (syn: basal urothelium)
EMAP:28557			ureteral mesenchyme
EMAP:28563			subepithelial layer (syn: presumptive lamina propria)
EMAP:28568			middle layer (syn: presumptive ureteral smooth muscle layer)
EMAP:28571			outer layer (syn: presumptive adventitia)
EMAP:30852			ureteral vasculature
EMAP:28549			allantois
EMAP:5517			urogenital sinus
EMAP:31674			developing vasculature of urogenital sinus
EMAP:31676			nerves of urogenital sinus
EMAP:31662			pelvic ganglion
EMAP:31664			nerve of urogenital sinus
EMAP:30872			primitive bladder (syn: cranial urogenital sinus)
EMAP:30875			epithelial layer of primitive bladder
EMAP:30878			mesenchymal layer of primitive bladder
EMAP:31666			mesenchymal layer of dorsal primitive bladder
EMAP:31653			mesenchymal layer of ventral primitive bladder
EMAP:31693			developing vasculature of primitive bladder
EMAP:30892			urethra
EMAP:30894			pelvic urethra
EMAP:31826			mesenchyme of pelvic urethra
EMAP:31825			dorsal mesenchyme of pelvic urethra
EMAP:31765			ventral mesenchyme of pelvic urethra
EMAP:31758			nerve of pelvic urethra
EMAP:30896			caudal urethra
EMAP:31757			nerve of caudal urethra
EMAP:30898			urethral plate
EMAP:30900			urethral fold
EMAP:5521			urorectal septum
EMAP:5516			urogenital membrane
EMAP:5522			reproductive system
EMAP:5532			male reproductive system
EMAP:29140			mesonephros of male
EMAP:5534			nephric duct of male, mesonephric portion (syn: mesonephric duct of male, mesonephric portion; Wolffian duct of male, mesonephric portion)
EMAP:29145			mesonephric mesenchyme of male
EMAP:29150			mesonephric tubule of male
EMAP:30530			cranial mesonephric tubule of male
EMAP:30534			mesonephric glomerulus of male
EMAP:30538			rest of cranial mesonephric tubule of male
EMAP:30542			caudal mesonephric tubule of male
EMAP:29160			paramesonephric duct of male, mesonephric portion (syn: mesonephric portion of male; Müllerian duct of male; Müllerian duct of male)
EMAP:30462			coelomic epithelium of male mesonephros
EMAP:31685			developing vasculature of male mesonephros
EMAP:29186			paramesonephric duct of male, rest of
EMAP:29188			epithelium of rest of paramesonephric duct of male
EMAP:29190			mesenchyme of rest of paramesonephric duct of male
EMAP:29174			nephric duct of male, rest of (syn: mesonephric duct; rest of)
EMAP:29182			epithelium of rest of nephric duct of male
EMAP:29178			mesenchyme of rest of nephric duct of male
EMAP:5536			testis
EMAP:5537			coelomic epithelium of testis
EMAP:29191			rete testis
EMAP:29076			interstitium of the testis (syn: interstitial tissue)
EMAP:29084			fetal Leydig cell
EMAP:29092			rest of interstitium of the testis (syn: non-specific mesenchyme)
EMAP:29116			developing vasculature of the testis
EMAP:29124			coelomic vessel
EMAP:29132			interstitial vessel
EMAP:29100			primary sex cord
EMAP:29108			Sertoli cell

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EMAP:5539				germ cell of the testis
EMAP:29112				peritubular myoid cell
EMAP:5535				mesorchium
EMAP:5533				genital tubercle of male (syn: penis anlage)
<del>EMAP:29172</del>				<del>genital tubercle surface epithelium of male</del>
<del>EMAP:29169</del>				<del>genital tubercle mesenchyme of male</del>
EMAP:30469				urethral epithelium of male (syn: urethral plate; urethral seam)
EMAP:31599				distal urethral epithelium of male
EMAP:31602				proximal urethral epithelium of male
EMAP:31594				urethral opening of male
EMAP:31853				distal genital tubercle of male (syn: glans of male)
EMAP:31854				surface epithelium of distal genital tubercle of male
EMAP:31852				mesenchyme of distal genital tubercle of male
EMAP:31592				proximal genital tubercle of male
EMAP:31586				surface epithelium of proximal genital tubercle of male
EMAP:31584				mesenchyme of proximal genital tubercle of male
EMAP:30483				preputial swelling of male (syn: prepuce of male)
EMAP:31850				surface epithelium of male preputial swelling
EMAP:31851				preputial gland of male
EMAP:31849				mesenchyme of male preputial swelling
EMAP:31607				developing vasculature of male genital tubercle
EMAP:5523				female reproductive system
EMAP:28911				mesonephros of female
EMAP:28916				mesonephric mesenchyme of female mesonephros
EMAP:28921				mesonephric tubule of female
EMAP:30546				cranial mesonephric tubule of female
EMAP:30549				mesonephric glomerulus of female
EMAP:30552				rest of cranial mesonephric tubule of female
EMAP:30555				caudal mesonephric tubule of female
EMAP:28926				nephric duct of female, mesonephric portion (syn: mesonephric duct of female; mesonephric portion; Wolffian duct of female)
EMAP:28939				paramesonephric duct of female, mesonephric portion (syn: Müllerian duct of female; Müllerian duct of female)
Müllerian duct of female)				
EMAP:28931				rete ovarii of mesonephros
EMAP:28936				coelomic epithelium of female mesonephros
EMAP:31689				developing vasculature of female mesonephros
EMAP:28942				paramesonephric duct of female, rest of (syn: Müllerian duct of female; Müllerian duct of female; rest of)
EMAP:28958				epithelium of rest of paramesonephric duct of female
EMAP:28962				mesenchyme of rest of paramesonephric duct of female
EMAP:28946				nephric duct of female, rest of (syn: mesonephric duct of female; rest of)
EMAP:28950				epithelium of rest of nephric duct of female
EMAP:28954				mesenchyme of rest of nephric duct of female
EMAP:5526				ovary
EMAP:5527				surface epithelium of ovary (syn: coelomic epithelium; <b>mesothelium</b> )
EMAP:5528				mesenchymal stroma of ovary
EMAP:5529				germ cell of ovary (syn: oogonia; premeiotic germ cell)
EMAP:28972				promeiotic germ cell (syn: oogonia)
EMAP:28967				meiotic germ cell (syn: oocyte)
EMAP:28890				developing vasculature of ovary
EMAP:5530				rete ovarii of ovary
EMAP:5525				mesovarium
EMAP:29619				genital tubercle of female (syn: clitoris anlage)
<del>EMAP:29628</del>				<del>genital tubercle surface epithelium of female</del>
<del>EMAP:29623</del>				<del>genital tubercle mesenchyme of female</del>
EMAP:30472				urethral epithelium of female (syn: urethral plate; urethral seam)
EMAP:31681				distal urethral epithelium of female
EMAP:31667				proximal urethral epithelium of female
EMAP:31670				urethral opening of female
EMAP:30480				preputial swelling of female (syn: prepuce of female)
EMAP:31843				surface epithelium of female preputial swelling
EMAP:31842				preputial gland of female
EMAP:31841				mesenchyme of female preputial swelling
EMAP:31838				distal genital tubercle of female (syn: glans of female)
EMAP:31840				surface epithelium of distal genital tubercle of female

EMAP:31839			└ mesenchyme of distal genital tubercle of female
EMAP:31597			└ proximal genital tubercle of female
EMAP:31679			└ surface epithelium of proximal genital tubercle of female
EMAP:31677			└ mesenchyme of proximal genital tubercle of female
EMAP:31589			└ developing vasculature of female genital tubercle

## TS21 Groups

'G' : Term is a group.

EMAP:25786	mouse		
EMAP:4908		├ organ system	
EMAP:4909		└ visceral organ	
EMAP:5500		└ urinary system	
EMAP:5504		└ metanephros (syn: kidney)	
EMAP:5513 G		└ early nephron GROUP (syn: early tubule)	
EMAP:27680		└ renal vesicle (syn: epithelial vesicle; stage I nephron)	
EMAP:31701		└ renal connecting segment of renal vesicle	
EMAP:31837		└ distal renal vesicle	
EMAP:31732		└ proximal renal vesicle	
EMAP:27683		└ comma-shaped body	
EMAP:27686		└ upper limb of comma-shaped body (syn: distal limb of comma-shaped body)	
EMAP:27689		└ lower limb of comma-shaped body (syn: proximal limb of comma-shaped body)	
EMAP:31718		└ renal connecting segment of comma-shaped body	
EMAP:27757		└ s-shaped body (syn: stage II nephron)	
EMAP:27759		└ renal connecting tubule of s-shaped body	
EMAP:27761		└ distal segment of s-shaped body (syn: upper limb of s-shaped body)	
EMAP:27763		└ medial segment of s-shaped body (syn: mid-portion of s-shaped body)	
EMAP:27765		└ proximal segment of s-shaped body (syn: lower limb of s-shaped body)	
EMAP:27767		└ visceral epithelium	
EMAP:27769		└ parietal epithelium	
EMAP:27771		└ capillary loop renal corpuscle (syn: renal corpuscle of the stage III nephron)	
EMAP:27777		└ associated interstitium	
EMAP:27775		└ parietal epithelium	
EMAP:27781		└ presumptive endothelium of renal corpuscle	
EMAP:27779		└ presumptive mesangium	
EMAP:27773		└ visceral epithelium (syn: podocyte layer)	
EMAP:27783		└ renal tubule (syn: renal tubule of capillary loop nephron )	
EMAP:27785		└ early proximal tubule (syn: early proximal tubule of capillary loop nephron)	
EMAP:27787		└ anlage of the loop of Henle	
EMAP:27789		└ early distal tubule (syn: early distal tubule of capillary loop nephron )	
EMAP:27791		└ renal connecting tubule (syn: renal connecting tubule of capillary loop nephron )	
EMAP:5508 G		└ primitive collecting duct group (syn: ureteric tree)	
EMAP:27750		└ ureteric tip (syn: ureteric ampulla)	
EMAP:31046		└ ureteric tree terminal branch excluding tip itself	
EMAP:28406		└ ureteric trunk (syn: ureteric stalk)	
EMAP:31855 G		└ renal interstitium group	
EMAP:5512		└ nephrogenic interstitium (syn: peripheral blastema)	
EMAP:27793		└ renal interstitium	
EMAP:31280		└ renal fibroblasts	
EMAP:31275		└ resident macrophages (syn: renal monocytes)	
EMAP:31272		└ nephrogenic interstitium (syn: peripheral blastema)	
EMAP:31278		└ rest of renal interstitium	
EMAP:31767 G		└ nephrogenic zone GROUP	
EMAP:31272		└ nephrogenic interstitium (syn: peripheral blastema)	
EMAP:31769 G		└ developing vasculature of urinary system GROUP	
EMAP:27796		└ developing vasculature of metanephros	
EMAP:31693		└ developing vasculature of primitive bladder	
EMAP:31674		└ developing vasculature of urogenital sinus	
EMAP:28458		└ renal vasculature	
EMAP:27781		└ presumptive endothelium of renal corpuscle	
EMAP:28379		└ renal artery	
EMAP:29996		└ endothelium of renal artery	
EMAP:30004		└ smooth muscle layer of renal artery	

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EMAP:28383			└ renal vein
EMAP:30012			└ endothelium of renal vein
EMAP:30020			└ smooth muscle layer of renal vein
EMAP:27796			└ developing vasculature of metanephros
EMAP:30852			└ ureteral vasculature
EMAP:28458 G		└ renal vasculature	└ presumptive endothelium of renal corpuscle
EMAP:27781			└ renal artery
EMAP:28379			└ endothelium of renal artery
EMAP:29996			└ smooth muscle layer of renal artery
EMAP:30004			└ renal vein
EMAP:28383			└ endothelium of renal vein
EMAP:30012			└ smooth muscle layer of renal vein
EMAP:30020			└ developing vasculature of metanephros
EMAP:27796			└ reproductive system
EMAP:5522			└ male reproductive system
EMAP:5532			└ female reproductive system
EMAP:5523			└ ovary
EMAP:5526			└ developing vasculature of reproductive system GROUP
EMAP:31778 G			└ developing vasculature of female genital tubercle
EMAP:31589			└ developing vasculature of female mesonephros
EMAP:31689			└ developing vasculature of male genital tubercle
EMAP:31607			└ developing vasculature of male mesonephros
EMAP:31685			└ developing vasculature of ovary
EMAP:28890			└ developing vasculature of the testis
EMAP:29116			└ coelomic vessel
EMAP:29124			└ interstitial vessel
EMAP:29132			