

Practical: Anatomy of Swine Reproductive System



**Animal Breeding
AAT 31022**

Male Reproductive System



THE REPRODUCTIVE TRACT OF THE BOAR

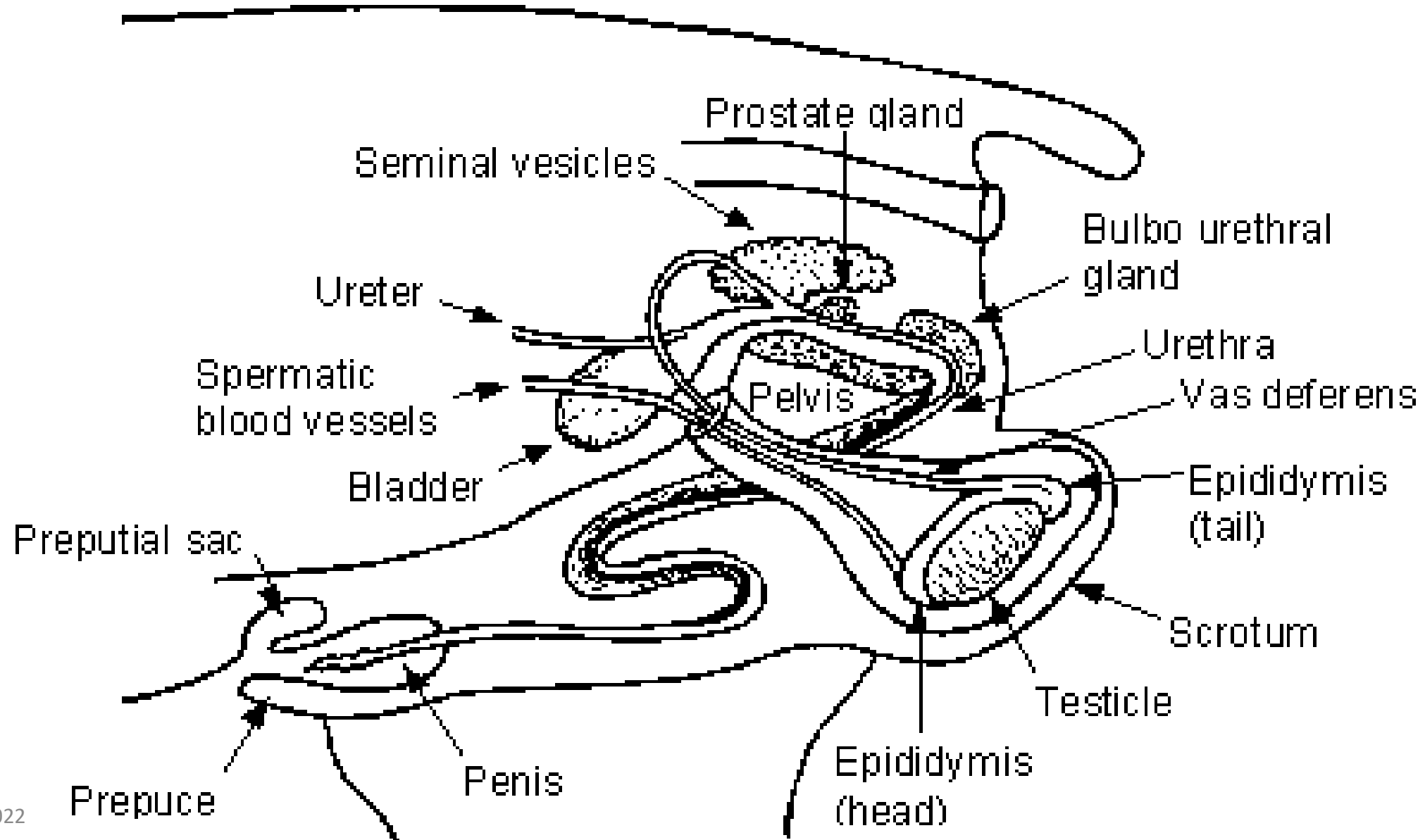
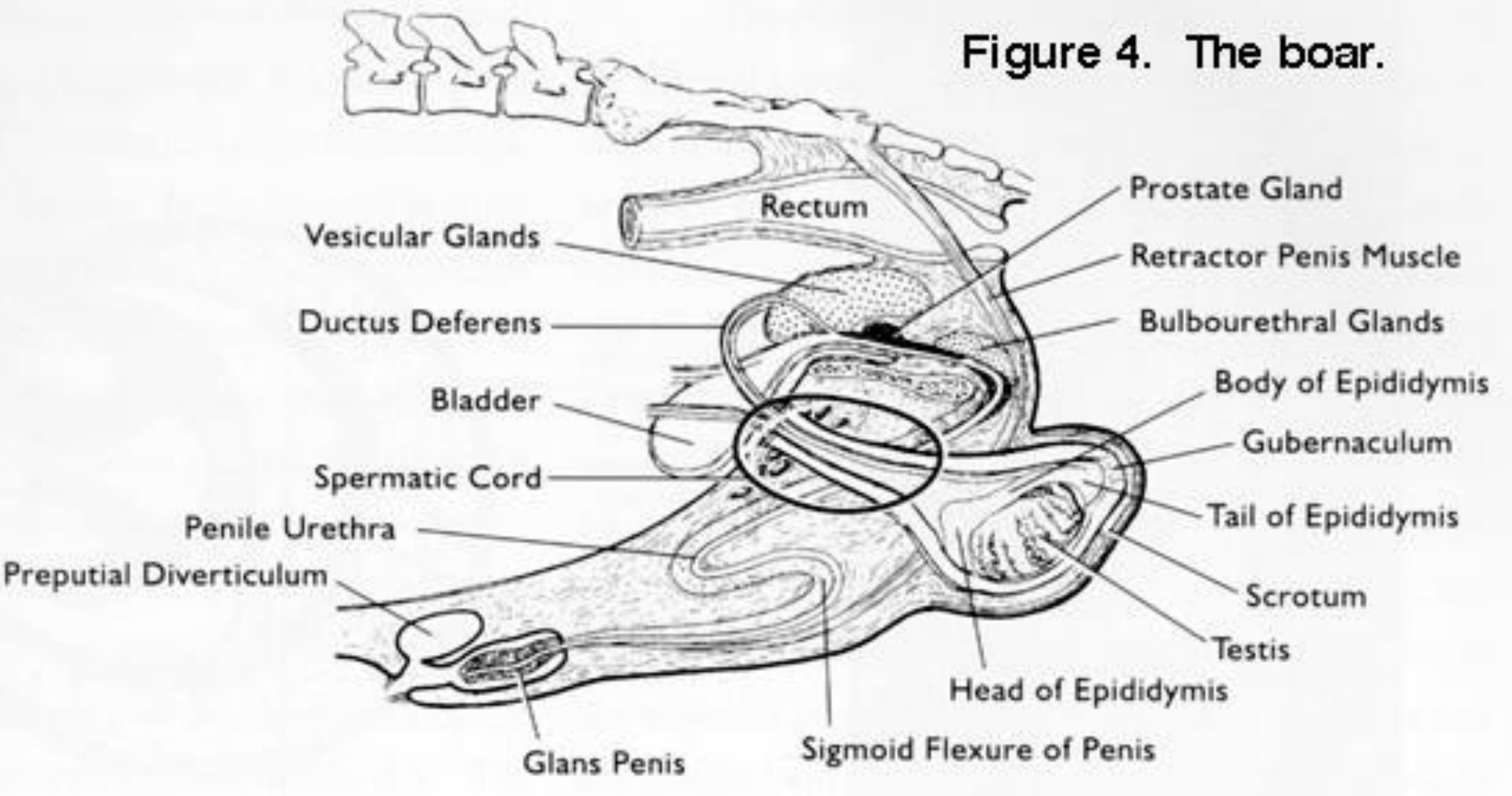


Figure 4. The boar.

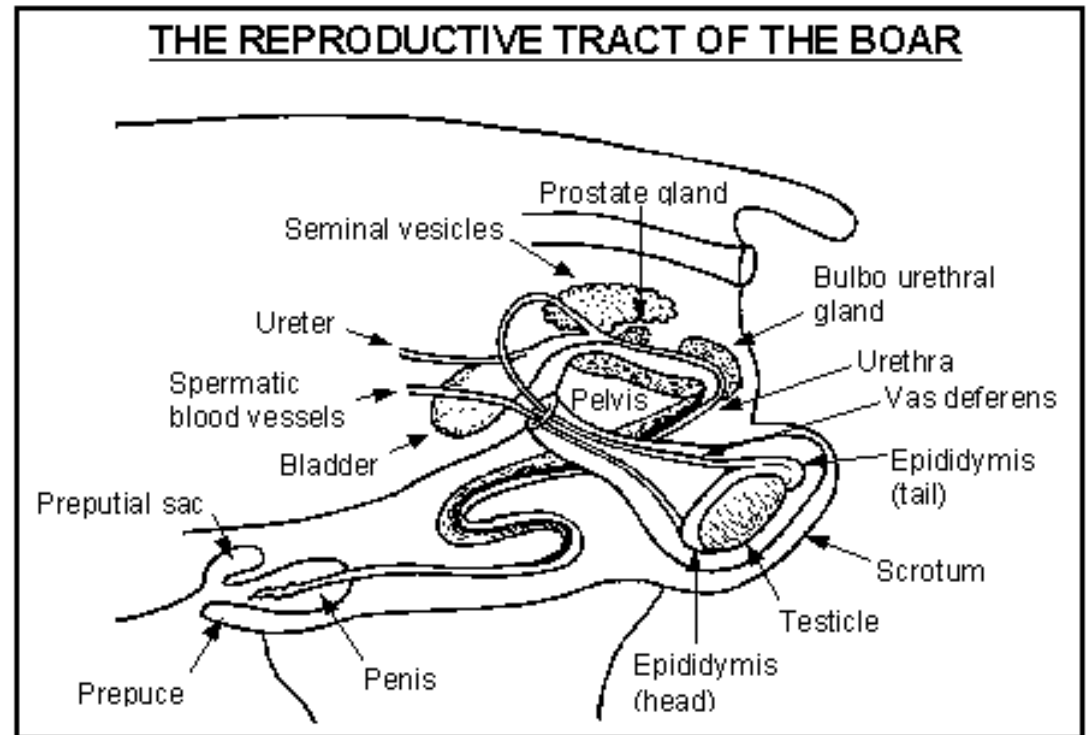
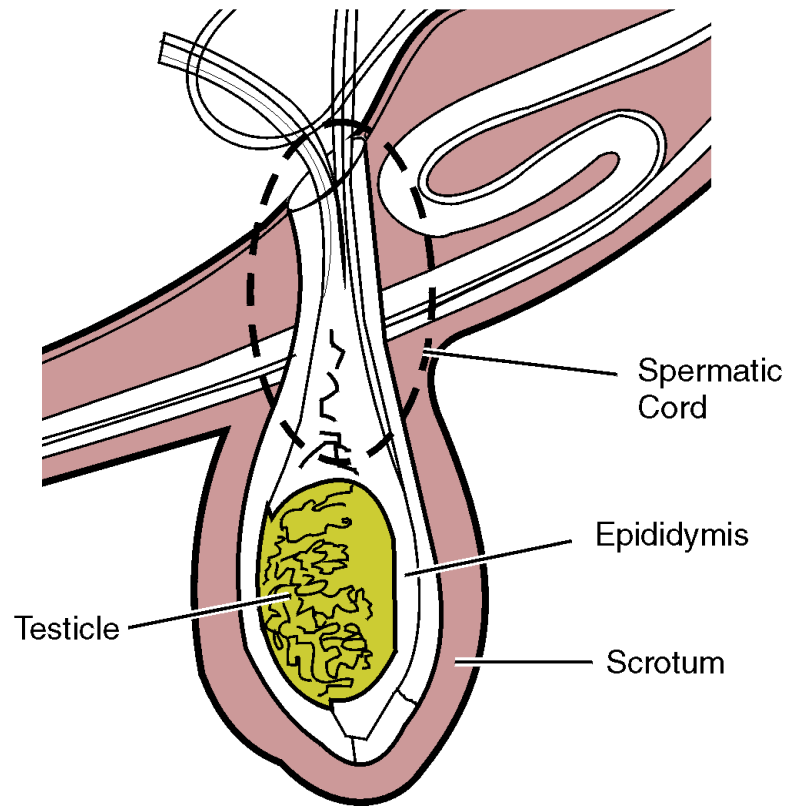


Functions of Organs

- ***Testes*** – paired, ovoid shaped organs that produce sperm cells and testosterone.

The male pig's testes are **unusual** in that they are anatomically **upside down**, which means that sperm is stored **near the top** of the testicle.

Unlike most other species, the boar testes are anatomically upside down. This means the sperm that are produced leave the testes from the bottom, move up, and are stored near the top of the testicle.



(Fig.5-32)

- ***Scrotum*** – sac outside and attached to the body that protects and supports the testes.
- ***Spermatic cord*** - a protective fibrous sheath consisting of smooth muscle, blood vessels, and nerves.

- *Epididymis* – a coiled tube connected to each testis that is responsible for the maturation, storage of sperm cells. (189 ft in length)
- *Deferent Duct (Vas Deferens)* – part of the spermatic cord that is the passageway for sperm from the epididymis to the pelvic urethra.

The vas deferens is the tube that is cut and sutured in order to create a **sterile**, vasectomized boar (**V-boars**). These V-boars have been used effectively for **estrous detection** and are normal in every way except they do not have sperm in the ejaculate.

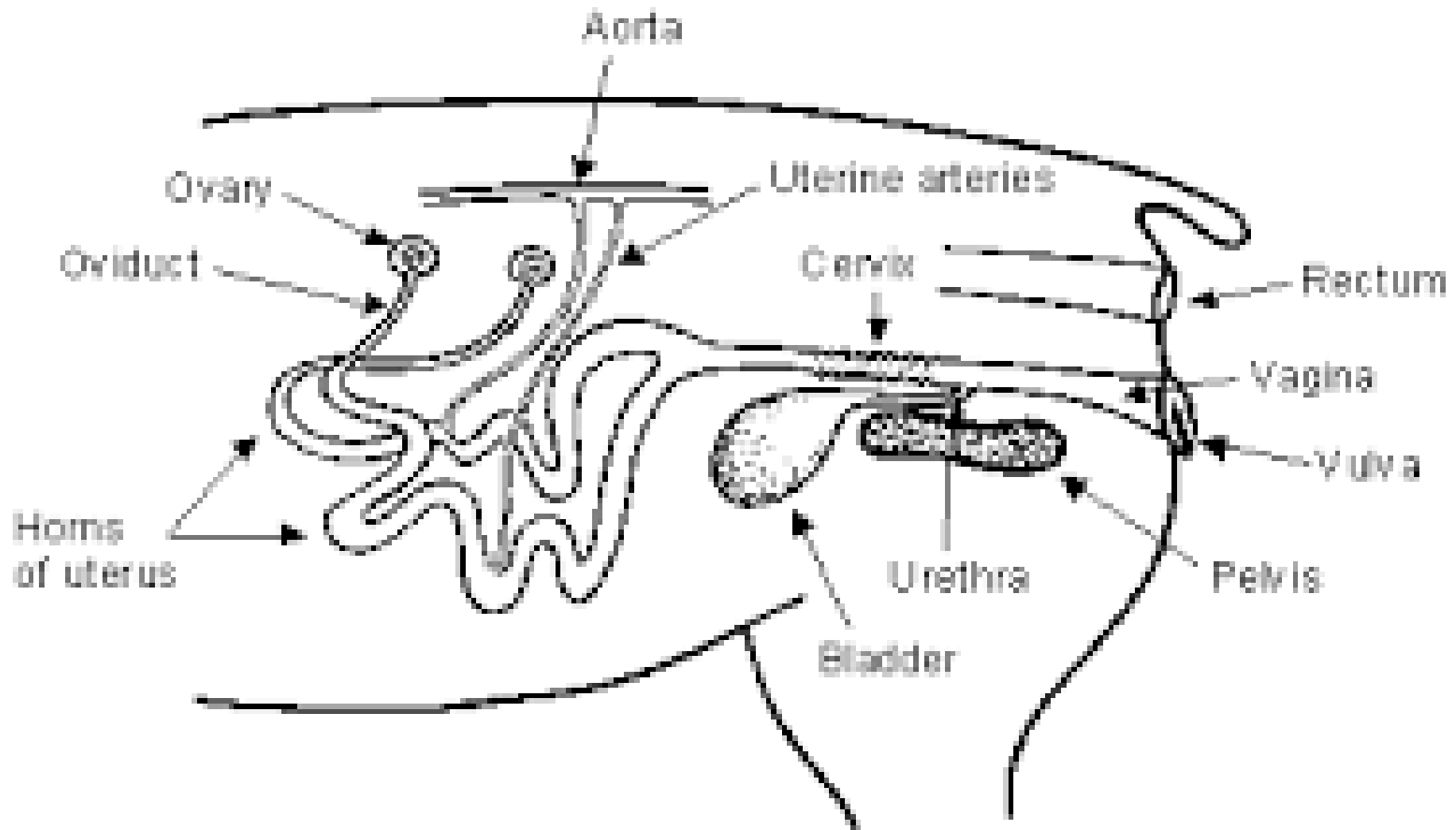
- *Urethra* – a passageway for both semen and urine that extends to the end of the penis.
- *Penis* – The boar penis is composed of tough **fibroelastic** tissue and form a **corkscrew shape**. To deliver semen into the female tract.

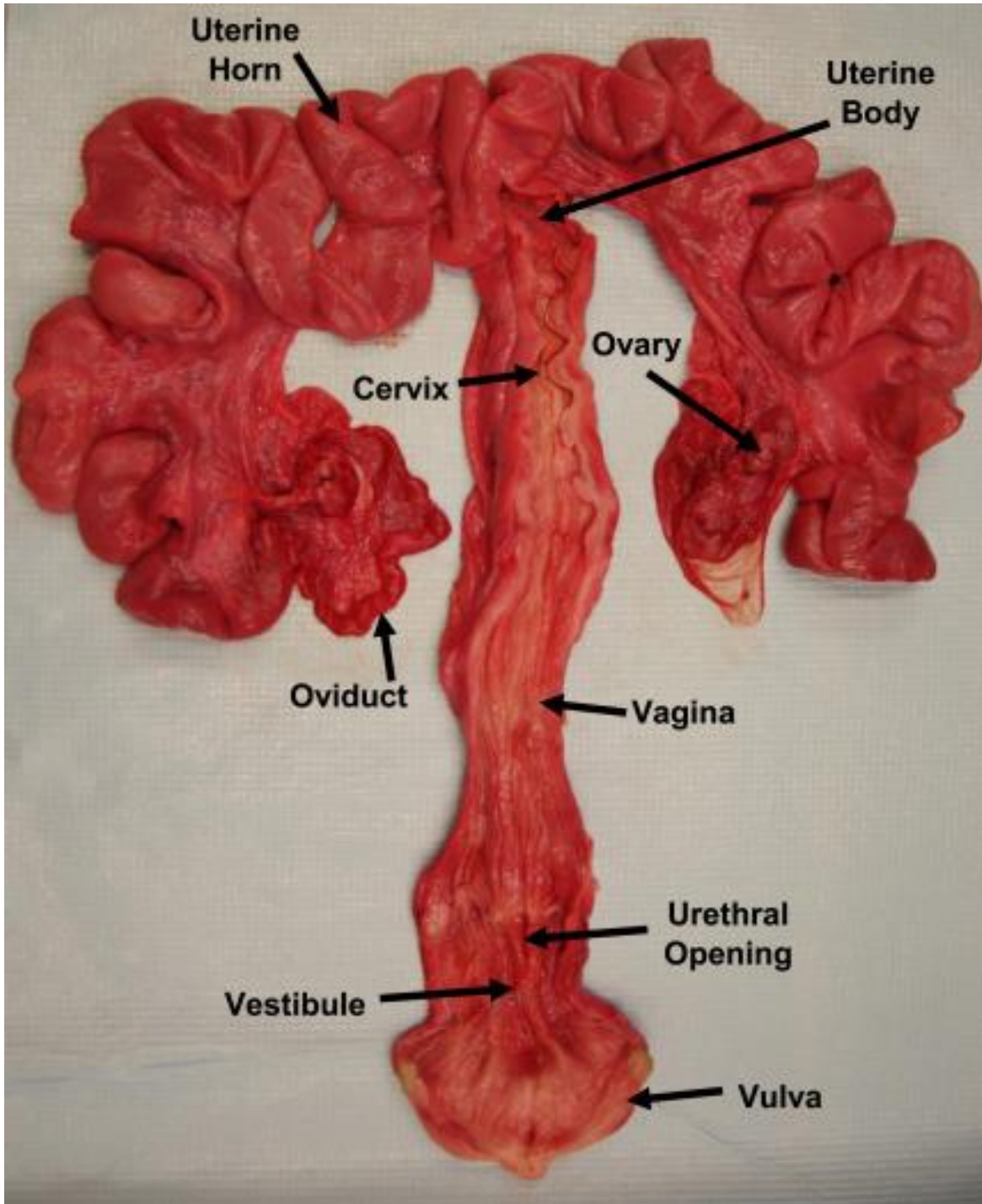
- *Retractor penis muscle* – muscle that contracts to retract the penis and form the sigmoid flexure and relaxes to extend the penis upon sexual excitement.
- *Prepuce* - the boar penis is extended through an opening called the prepuce located on the abdomen

Female Reproductive System



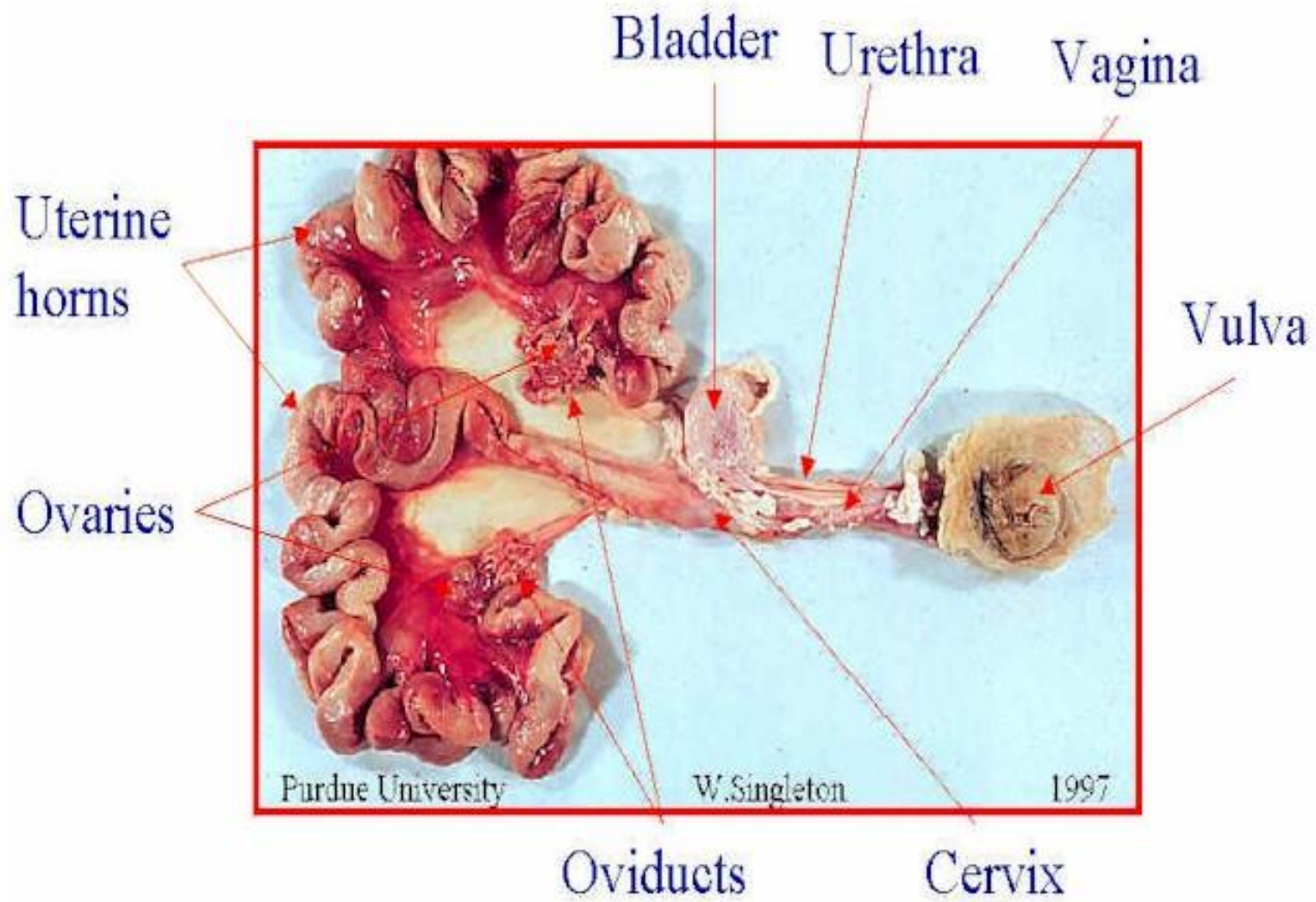
THE REPRODUCTIVE TRACT OF THE SOW





Reproductive Tract's Organs

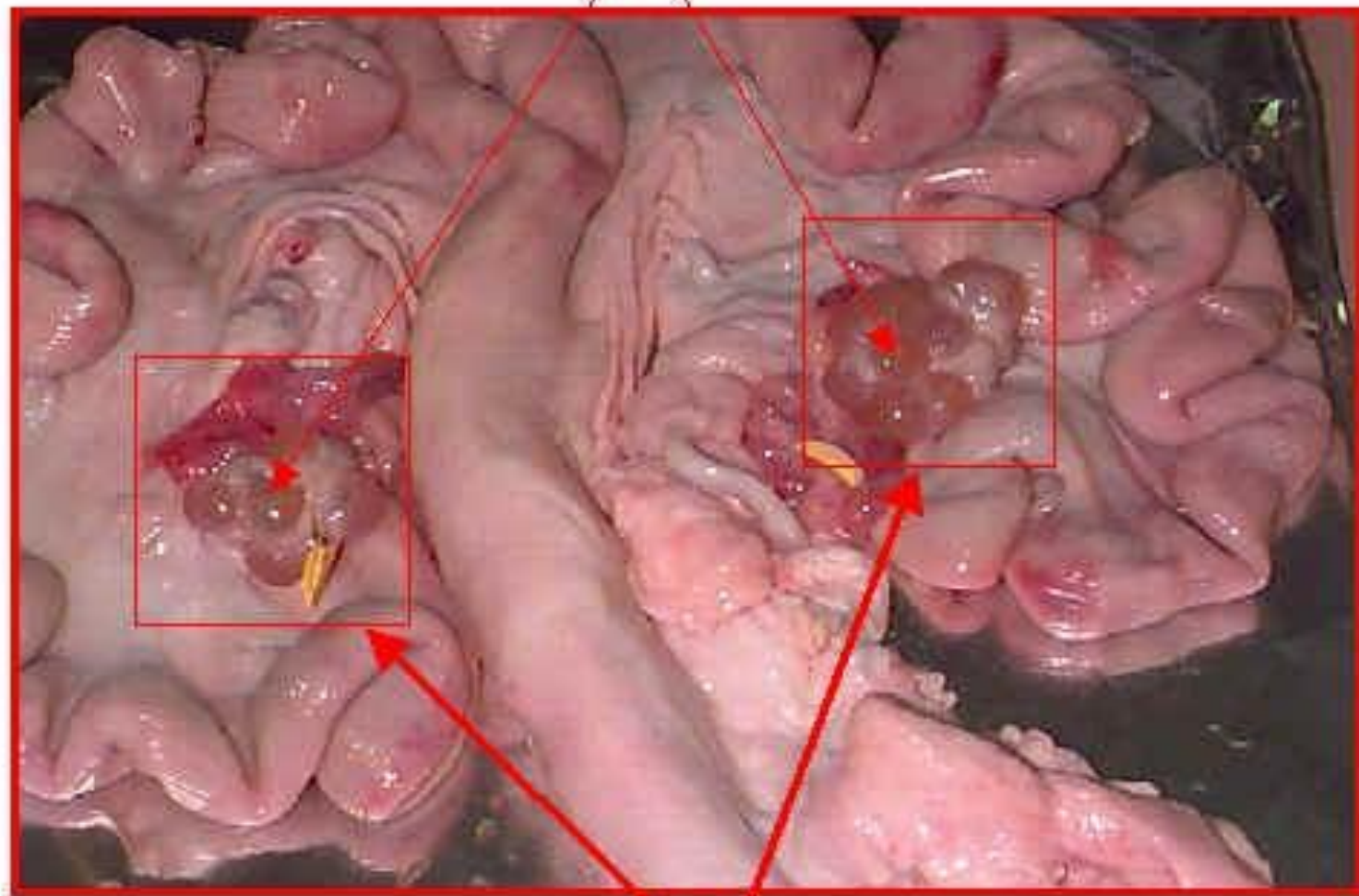
- Ovaries
- Infundibulum
- Oviduct
- Uterine horns
- Uterine body
- Cervix
- Vagina
- Vulva



Ovaries

- Primary Structure
- Two Major Function:
 - To produce ova, the female germ cells
 - To produce the hormones progesterone and estrogen

Follicles



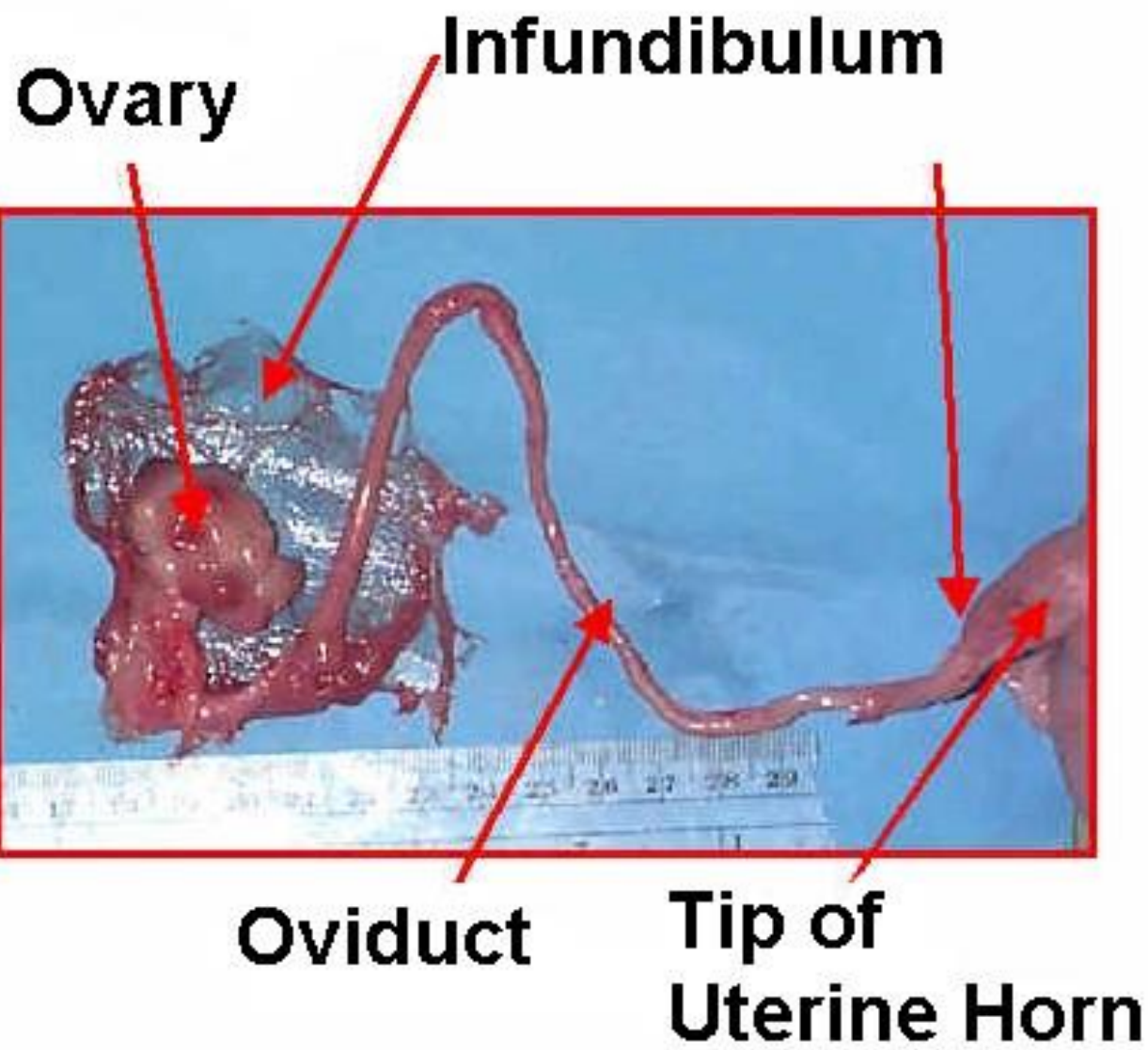
Ovaries

• Infundibulum

- Acts like a funnel to collect ova
- Diverts ova to the oviducts

• Oviducts

- 6 to 10 inches long
- Acts as site of fertilization

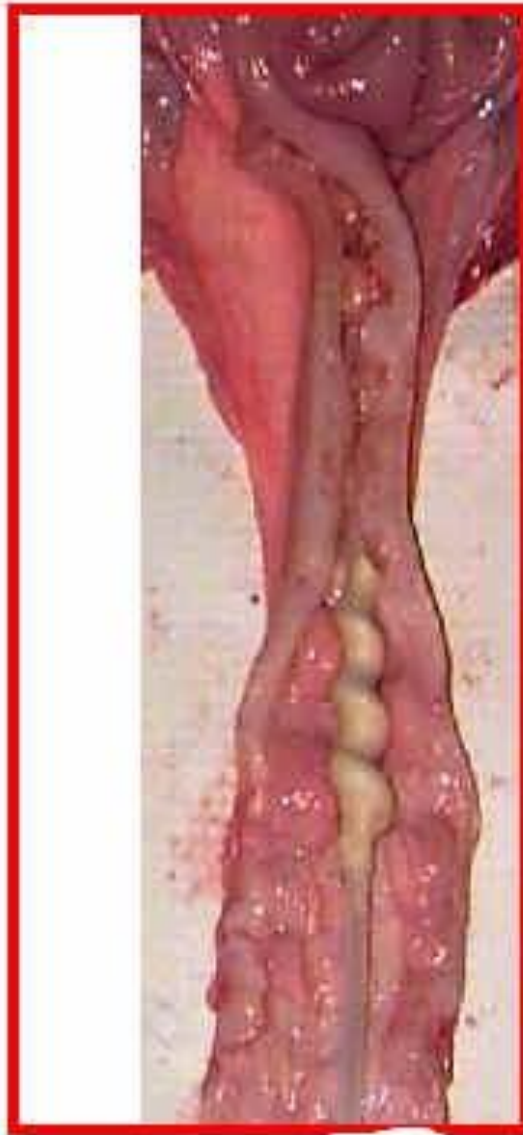


Uterine Horns

- **2 – 3 feet in a non-pregnant sow**
- **Act as a passage way for sperm**
- **Are the site of fetal development**
- **Uterine body is located at junction of the uterine horns**

Cervix

- Muscular junction between the vagina and uteri
- Site of semen deposit
- It is relax during heat (estrus)
 - Constricted during pregnancy and when not in heat



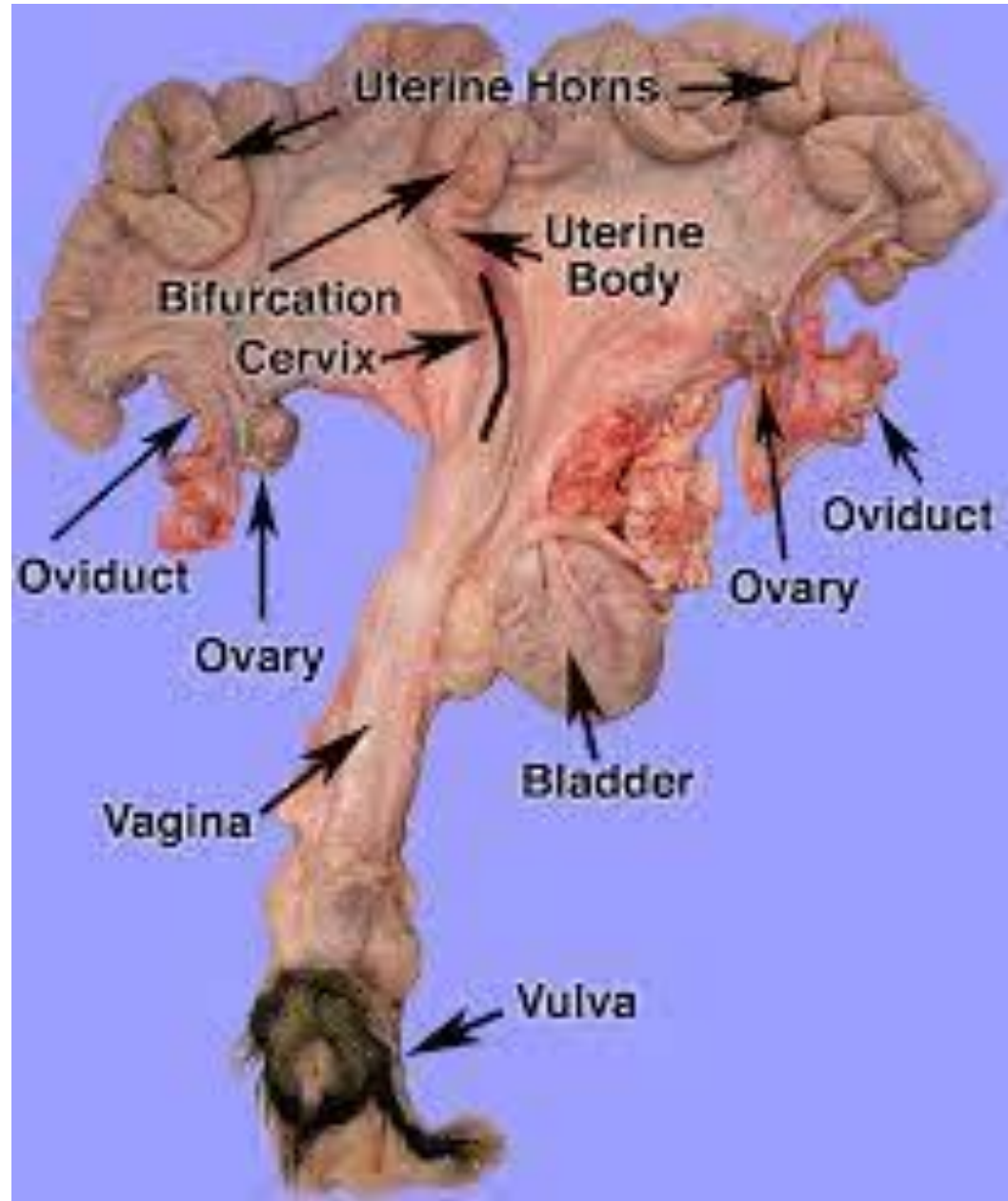
Spirette

Vagina

- Extends from the cervix to the vulva
- Passage way for urine and piglets
- The **Bladder is connected to the vagina by the urethra**

Vulva

- External part of the reproductive tract
- Becomes red and swollen just prior to estrus



Report Submission - **Goat**

- You have to write a report, including below content;
 - Label the male and female reproductive system
 - Describe the functions of each organ in your words
 - Write a short note (about 300 words for each)
 - Estrus of Goat
 - Differentiate words puberty and sexual maturity
 - Make your report as a soft copy (In type)
 - Submit via **Turnitin** and **VLE**
 - **Plagiarisms will be checked strictly**
 - **Due Date: On or before 10th of March - 2022**

THANK YOU