LAB 11

MALE / FEMALE REPRODUCTIVE SYSTEM
&
ENDOCRINE SYSTEM I

Assignments:

Due before lab:
Label diagrams of the male and female pelvis (pgs. 104 – 105) and be prepared for a quiz.

Due next lab:
Quiz: Complete Endocrine chart on pgs. 112 – 114.

Complete the case studies on page 115-118.

Objectives:
Identify designated slides of the male and female reproductive system and indicated structures

Identify the organs of the male and female reproductive system in the fetal pig

Identify structures on male and female human models

Identify designated slides of the Endocrine System and related structures and know what hormones are produced by these organs

Identify endocrine organs on a human model. Know the hormones and disorders associated with these organs

Identify endocrine organs in a fetal pig
Male/Female Histology

A. Slides

MALE

1. Testes
   Identify: seminiferous tubules
   Spermatogonia (2)
   Spermatocytes (3)
   Spermatids (4) Sperm (5)
   interstitial cells - Leydig cells (1)

FEMALE

2. Uterus - proliferative phase
   Identify: endometrium
   myometrium

3. Uterus - secretory phase
   Identify: endometrium
   myometrium

4. Uterus - menstrual phase
5. Ovary (Graafian)

Identify:

- primordial follicle
- primary follicle
- secondary follicle
- Graafian follicle
B. Fetal Pig Anatomy

MALE

- right vas deferens
- left vas deferens
- right epididymis
- left epididymis
- right testis
- left testis
- scrotum
B. Fetal Pig Anatomy

FEMALE

- right ovary
- left ovary
- uterine horns
- uterus
- vagina
### Human Male Pelvis Model

<table>
<thead>
<tr>
<th>Old model</th>
<th>New model</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Penis</td>
<td>11</td>
</tr>
<tr>
<td>3. Scrotum</td>
<td></td>
</tr>
<tr>
<td>32. Ductus deferens or Vas deferens</td>
<td>8</td>
</tr>
<tr>
<td>37. Urinary bladder</td>
<td>4</td>
</tr>
<tr>
<td>38. Seminal vesicle</td>
<td>7</td>
</tr>
<tr>
<td>39. Ampulla of vas deferens</td>
<td></td>
</tr>
<tr>
<td>40. Prostate</td>
<td>5</td>
</tr>
<tr>
<td>41. Ejaculatory duct</td>
<td></td>
</tr>
<tr>
<td>42. Bulbourethral gland</td>
<td></td>
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<tr>
<td>44. Prostatic urethra</td>
<td></td>
</tr>
<tr>
<td>45. Spongy or penile urethra</td>
<td></td>
</tr>
<tr>
<td>49. Glans penis</td>
<td>12</td>
</tr>
<tr>
<td>52. Testis</td>
<td>15</td>
</tr>
<tr>
<td>53. Epididymis</td>
<td>16</td>
</tr>
<tr>
<td>59. Pubic symphysis</td>
<td>1</td>
</tr>
</tbody>
</table>
D. Human Female Pelvis Model

<table>
<thead>
<tr>
<th>Old model</th>
<th>new model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mons pubis</td>
<td>4</td>
</tr>
<tr>
<td>Labium majus (labia majora)</td>
<td>3</td>
</tr>
<tr>
<td>Labium minus (labia minora)</td>
<td>4</td>
</tr>
<tr>
<td>Uterine tube</td>
<td>20</td>
</tr>
<tr>
<td>Ovary</td>
<td>21</td>
</tr>
<tr>
<td>Uterus</td>
<td>22</td>
</tr>
<tr>
<td>Cervix</td>
<td>23</td>
</tr>
<tr>
<td>Vagina</td>
<td>29</td>
</tr>
<tr>
<td>Urethra</td>
<td>31</td>
</tr>
<tr>
<td>Urinary bladder</td>
<td>32</td>
</tr>
<tr>
<td>Pubic symphysis</td>
<td>36</td>
</tr>
<tr>
<td>Clitoris</td>
<td>37</td>
</tr>
</tbody>
</table>
Endocrine Histology

A. SLIDES – Know what hormones are produced in each organ. Know disorders associated with each organ.

1. Pituitary
   Identify: anterior pituitary lobe (1)
             posterior pituitary lobe (2)

2. Thyroid Gland
   Identify: thyroid follicles
             colloid
             cuboidal epithelium
             parafollicular or C-cells
3. Adrenal Gland

Identify:
- capsule (1)
- adrenal cortex (2-4)
- zona glomerulosa (2)
- zona fasciculata (3)
- zona reticularis (4)
- adrenal medulla (5)

4. Pancreas

Identify:
- islets of Langerhans (1)
- acini cells (2)

Web Sites:
- [http://biomed.brown.edu](http://biomed.brown.edu) Go to: Biology,Courses, BI/0189 (Human Histology)
- [www.kumc.edu/instruction/medicine/anatomy/histoweb/index.htm](http://www.kumc.edu/instruction/medicine/anatomy/histoweb/index.htm)
**B. Fetal Pig Anatomy**

- thyroid gland
- cervical thymus gland
- thoracic thymus gland

(pancreas)

(adrenal glands) (probably not on fetal pig)
C. **Endocrine System Model Key**

**** Know what hormones are produced by each organ.  
**** Know what disorders are associated with each hyper(or hypo) secretion from each.

1. Pituitary gland (Hypophysis)
2. Anterior pituitary (adenohypophysis)
3. Posterior pituitary (neurohypophysis)
4. Infundibulum
5. Thyroid gland
6. Lateral lobe of thyroid
7. Isthmus of thyroid
8. Parathyroid gland
9. Adrenal gland
10. Capsule of adrenal gland
11. Cortex of adrenal gland
12. Medulla of adrenal gland
13. Islets of Langerhans (in pancreas)
16. Testes / testicle
18. Epididymis
20. Ovary
33. Fallopian tubes (oviducts)

**New Endocrine Model (not pictured)**

1. Pituitary (know which is anterior and which is posterior)
2. Thyroid
3. Adrenal Glands
4. Testes
5. Pancreas
6. Parathyroid Glands
7. Ovary