Mock Micropractical 1  
Sept. 6, 2005

Brought to you by:  
APAMSA  
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1  
a) What type of epithelium is shown above? (Be Specific):  
Nonkeratinized stratified squamous epithelium  
b) Name one place in the body where this type of epithelium can be found?  
Pharynx, vagina, anal canal, & inner surface of eyelid

2  
A. What stain is being used to stain parts of the slide blue-green?  
- Trichrome stain, i.e. Masson’s, Mallory’s  
B. What is this stain used to stain for?  
- collagen

3  
A) What organ is this?  
Æ Mammary gland  
B) What stage is it in?  
Æ Proliferating/Pregnancy stage

4  
a) Classify the connective tissue displayed in this slide.  
Dense Regular CT

5  
a) What type of epithelium is shown above? (Be Specific):  
Transitional Epithelium  
b) Where in the body can this type of epithelium be found?  
Urinary Bladder and Ureter
A. Identify the structure designated by the long arrow
- Meissner corpuscle
A. What is the function of this structure? Sense receptor for light, discriminatory touch

a) Identify the region indicated by the arrow.
- Dermal papilla

a) What type of epithelium is shown above? (Be Specific)
- Ciliated Pseudostratified Columnar with Goblet Cells

What are the structures labeled 2? → Smooth/agranular ER

A. What stain is being used?
- osmium tetroxide
B. What is this stain used for?
- lipids

a) What structure is the RED ARROW pointing to?
- Eccrine Sweat Gland
What structure is indicated by the **BLACK** arrow? Sterocilia

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What structure is indicated by the Number **4** arrow? Glycocalyx
b) This structure is PAS positive, true or false? True

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a) Classify the connective tissue displayed in this slide. **Dense Regular CT**

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What structure is indicated by the Number **5**? Zonula Ocludens (Tight Junction)

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a) Classify the connective tissue displayed in this slide. **Dense Irregular CT**

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A) (1) Nucleus; (2) Nissl Bodies (=RER + free ribosomes)
B) Is this cell euchromatic or heterochromatic?
What structure is indicated by the Number 3?

a) Zonula Occludens  
b) Zona Adherens  
c) Desmosome  
d) Gap Junction

A. Name the layer indicated by the arrow.
- stratum basale

a) Identify this gland.
- Apocrine Sweat Gland

a) Name a region of the body where this gland can be found?
- Axilla, perianal region, areola

a) Identify the cells shown in this figure (BLACK ARROW).
- Plasma Cell

In this electron micrograph, the arrow is pointing to what structure?
- Langerhans cell
a) Identify the structures indicated by **BLACK ARROW**.
- Tertiary villus

a) What type of epithelium is shown above? (Be Specific)
- Simple Cuboidal

b) What structure is the **BLUE CIRCLE** pointing to?
- Junctional Complex

This slide is an enlargement of the picture at the lower left hand corner.

A) 2 – protein particles; 3 – lipid droplets
B) Protein portion – merocrine secretion; lipid portion – apocrine secretion

a) Identify this gland.
- Sebaceous Gland

b) What method of secretion does this gland use?
- Holocrine

a) Identify the cells indicated by the **BLUE ARROWS**.
- Myoepithelial cells

A) What are the structures pointed by the green arrows? → Hemidesmosome
B) What’s their function? → Attach the cell to basal lamina
a) Identify the gland from which this slide is from.
- Sublingual gland

a) Identify the fibers displayed in this slide.
- Reticular fibers

a) Identify the cell indicated by Number 3.
- Serous Demilunes

a) Identify the region indicated by the arrow.
- Eponychium (cuticle)

A. Identify the layer labeled “2” - stratum spinosum
B. Identify the cell labeled by the arrow. - keratinocyte

a) Identify the region indicated by Number 6.
- Inner Root Sheath
a) Identify the structures indicated by **BLUE ARROW**.
- Syncytiotrophoblast

a) Identify the vessel indicated by the **BLACK ARROW**.
- Umbilical Artery

a) Identify the fibers indicated by the **YELLOW ARROW**.
- Elastic Fibers

A. In this electron micrograph, identify the structure pointed to be the arrows.
- Merkel cell

B. What is the function of the structure designated by the arrows?
- functions as a mechanoreceptor

a) Classify the connective tissue displayed in this slide.
- Loose CT

a) Identify the cell shown in this figure.
- Eosinophil
A) What stage is this slide representing?  **Inactive/Resting stage (abundant loose CT, few ducts & alveoli)**

B) 1 - ducts; 2 - glands

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a) Identify the cell shown in this figure.  **Macrophages**

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a) What type of epithelium is shown above?  **Simple Columnar Epithelium**

b) What structure is the **BLACK** arrow pointing to?  **Brush Border (Striated Border)**

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a) Identify the cell indicated by the **NUMBER 8**.  **Cytotrophoblast**