IPHY 3410, Section 100 VOCABULARY LOWRY
Spring, 2009

Lecture	Date	Topic	Reading in Marieb, Mallatt, and Wilhelm
L2	Thur 1/15	Epithelial tissue	Ch. 4, pp. 69-81

tissue
extracellular matrix
epithelium

Special characteristics of epithelia
- *1. cellularity*
- *2. specialized contacts*
  - *tight junctions*
  - *desmosomes*
  - *gap junctions*
- *3. polarity*
  - *apical*
  - *basal*
- *4. support by connective tissue*
  - *basal lamina*
  - *basement membrane*
- *5. avascular*
- *6. innervated*
- *7. regeneration*

Classification of epithelia
- *Classification by cell layers*
  - *simple*
  - *stratified*
- *Classification by shape*
  - *squamous*
  - *cuboidal*
  - *columnar*

simple squamous epithelium
- *endothelium*
- *mesothelium*

simple cuboidal epithelium
simple columnar epithelium
pseudostratified columnar epithelium (all cells rest on the basement membrane)
stratified squamous epithelium
stratified cuboidal epithelium
stratified columnar epithelium
transitional epithelium

Recommended study task

Use information in Table 4.3 to prepare your own table illustrating the function and location of each major epithelial cell type.

keratinized
keratin (a type of intermediate filament)
nonkeratinized

Glands

exocrine glands
- *unicellular exocrine gland*
- *multicellular exocrine gland*
  - *simple*
  - *compound (has a branched duct)*
  - *tubular*
  - *alveolar (acinar)*
  - *tubuloalveolar*

endocrine glands (ductless glands)
- *hormone*
- *target organs*

Epithelial surface features

Lateral surface features
- *tight junctions*
- *desmosomes*
  - *intermediate filaments*
- *gap junctions*
  - *connexins*
  - *connexons (a **connexon** is an assembly of 6 proteins called **connexins** that forms a bridge called a **gap junction** between the cytoplasm of two adjacent cells; two connexons, one associated with each cell, are required to form a gap junction)*

Basal surface features
- *basal lamina*
- *reticular fibers*
- *basement membrane*

Apical surface features
- *microvilli*
- *cilia*
  - *microtubules*