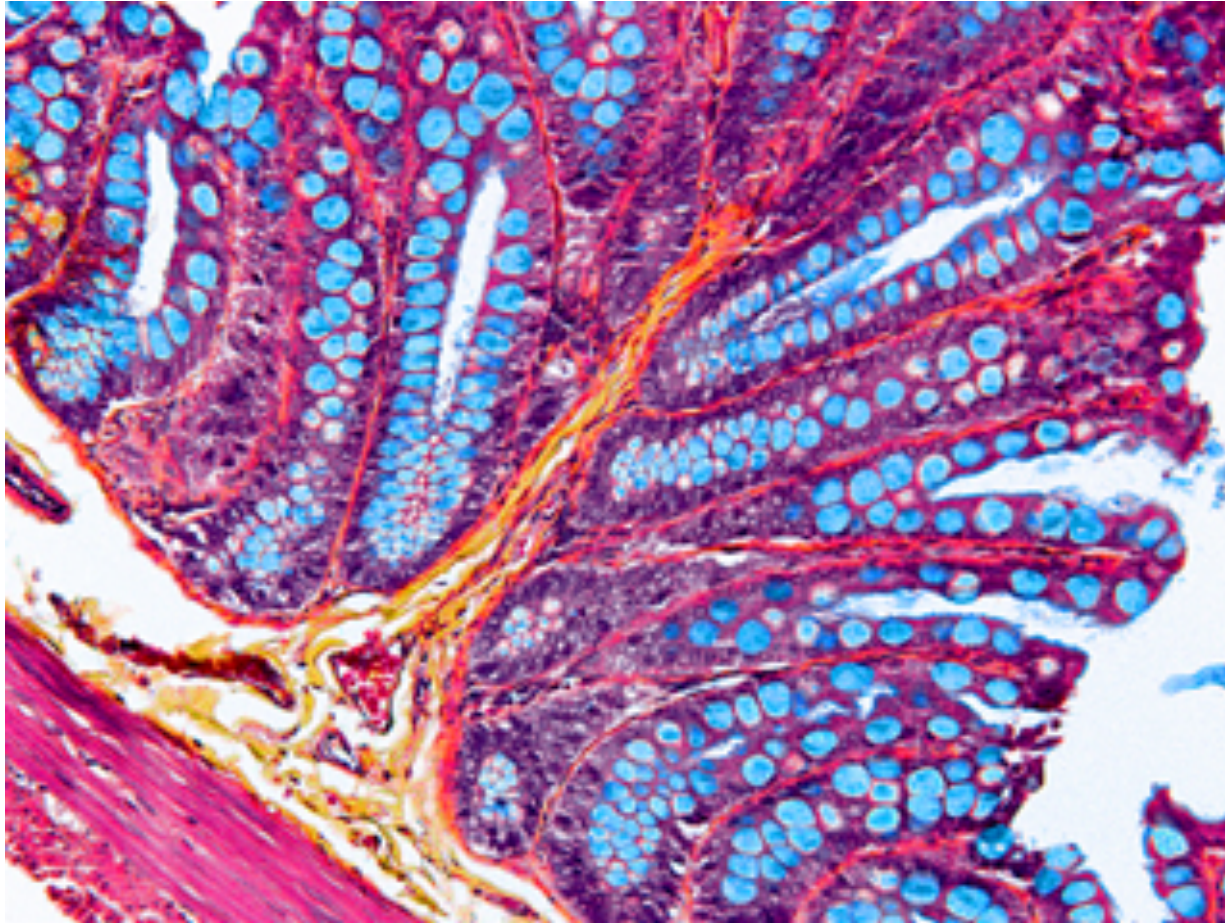


NEPHAR116: HISTOLOGY



Dr. Deniz Balci
deniz.balci@neu.edu.tr

Course Instructor

Dr. Deniz Balci

Office: 12H417- 4th floor

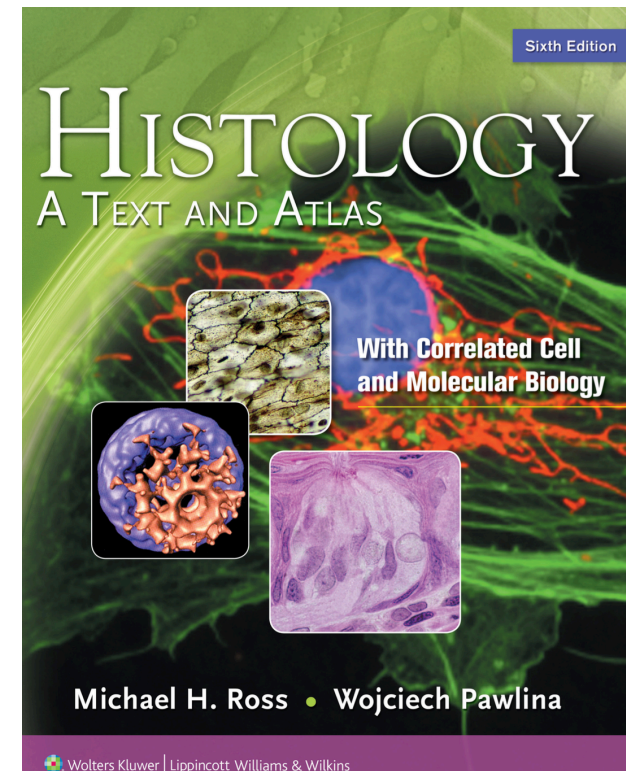
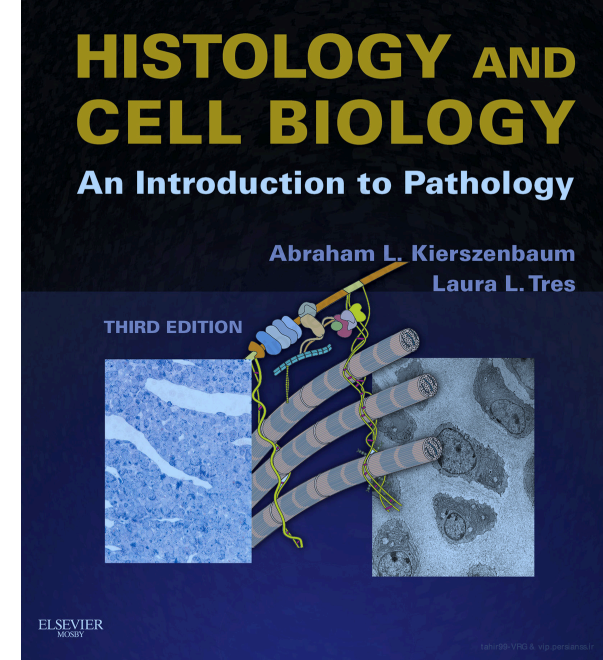
Office Hours: Wednesday at 11:00-12:00

Friday at 13:00-14:00

E-mail: deniz.balci@neu.edu.tr

Course Components

- Reading: Histology and Cell Biology: An Introduction to Pathology 3rd Ed.
Abraham L Kierszenbaum, Laura L.
- Ross & Pawlina, Histology, A Text and Atlas, 6th edition, 2011
- Lecture series
- Sample questions posted on web
- Virtual microscope: histologyguide.org
- 1 midterm, 1 final exam



Grading

The assessment of this course (Histology sessions) is in two parts:

✧ Midterm	30%
✧ Quizz(es)	10%
✧ Final	60%
Total	100%

Attendance

- 70% Attendance is required.
- Bonus will be given only to students whose attendance is more than 70%
- Who do not take midterm and final exams receive an NA grade.

Course Web Site

FACEBOOK

NEPHAR116 HISTOLOGY FALL 2018

- PowerPoint presentations shown in lecture will be posted for your review
- Animations/reading material for discussion will be posted on facebook
- Course announcements will be posted on facebook

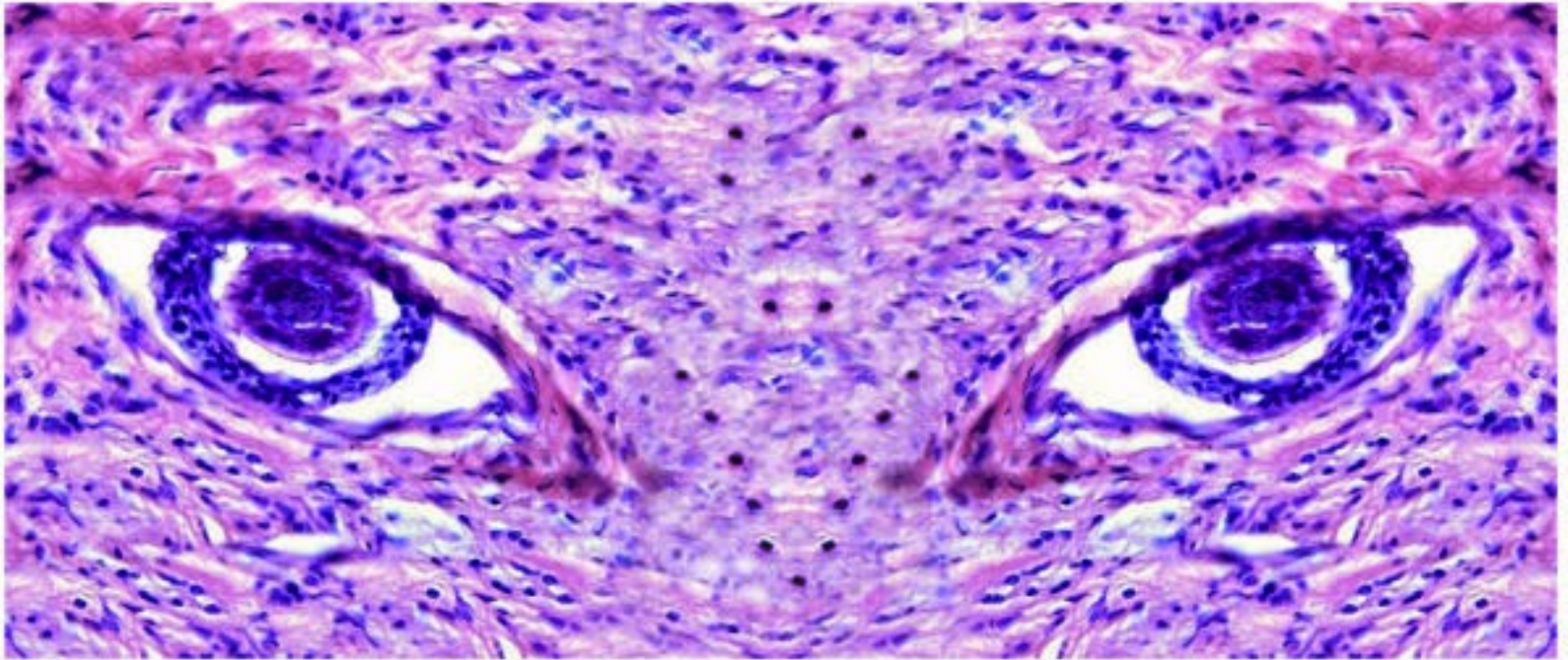


- What Do You Expect to learn?

- How Do You Wish To Learn Stuff here?

Week	Topic	Date
1	Introduction to Histology and Terminology	28/09/2018
2	The cell and its Organelles	5/10/2018
3	Epithelial Tissue Properties	12/10/2018
4	Types of covering/lining epithelium/glandular epithelium	19/10/2018
5	Connective Tissue Properties	26/10/2018
6	Classification and examples of connective tissue	02/11/2018
7	Discussion/VIRTUAL LAB	09/11/2018
8	MIDTERM EXAMS	12-17/11/2018
9	Muscle Tissue-Striated muscles	23/11/2018
10	Muscle Tissue-Smooth muscle	30/11/2018
11	Nervous Tissue - CNS	07/12/2018
12	Nervous Tissue - PNS	14/12/2018
13	Microscope & Basic Histological Techniques	21/12/2018
14	Discussion/VIRTUAL LAB	28/12/2018
15	FINAL EXAMS	7-16/01/2018

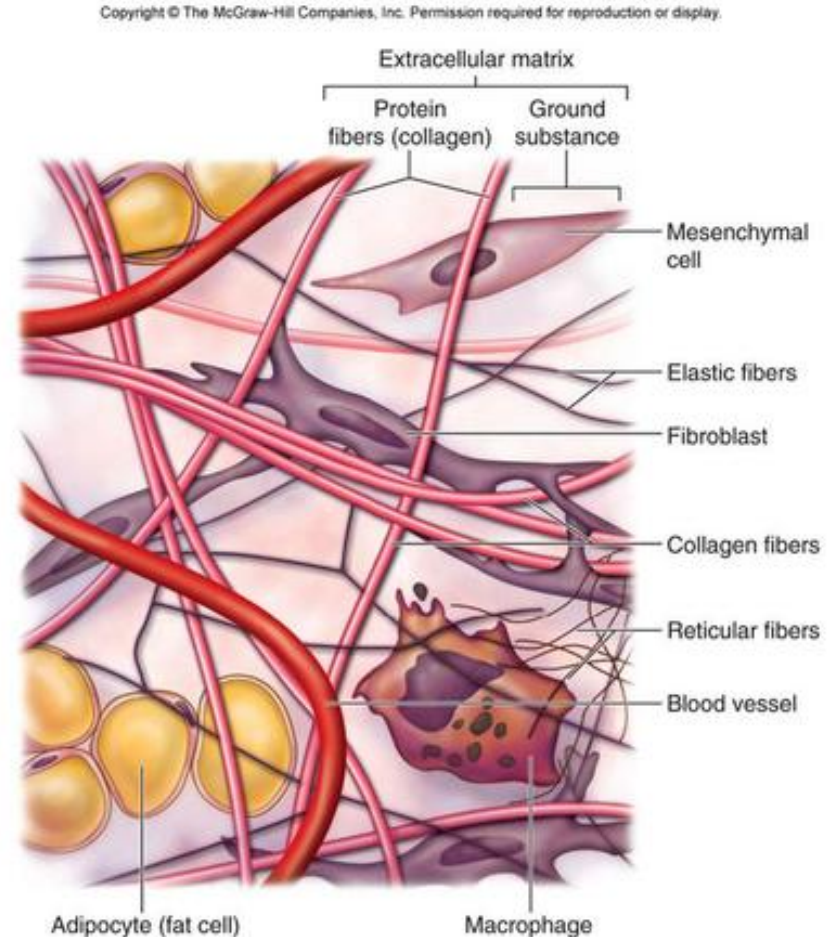
Questions???



What is the definition of Histology?

“Histo” comes from Greek which means “web” or “tissue”

✧ Histology is the scientific study of biological tissues.



What is the definition of Histology?

✧ Histology is the study of the microscopic structures of cells and tissues of plants and animals. It is often carried out by examining a thin slice (called a "section") of tissue under a microscope.



Why are we studying Histology?

- To develop a mental image of the microscopic appearance of cells, structures, tissues, and organs.
- To correlate microscopic appearance with function in health and disease.
- To provide a basis for later study of anatomy and pathology.
- Because it's awesome.

Where does Histology fit in?

- Gross Anatomy
- Microscopic Anatomy (Histology)
- Other Biomedical Science Courses
 - Biochemistry
 - Physiology
 - Microbiology
 - Pathology
 - Pharmacology

Histologic Hierarchy

Is the basic functional unit of all organisms.

Cells



Cells that are similar or function similarly are grouped together to form

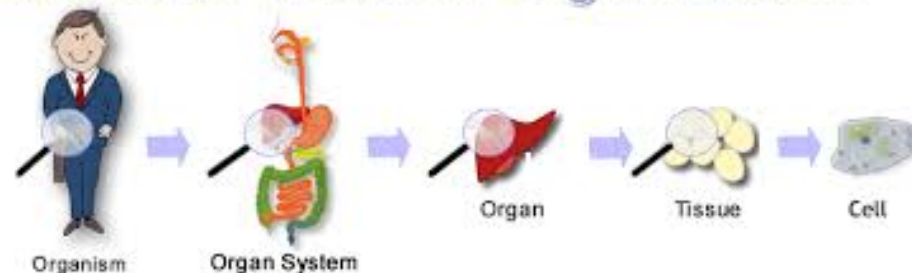
Tissues



Tissues are grouped together to form
Organs

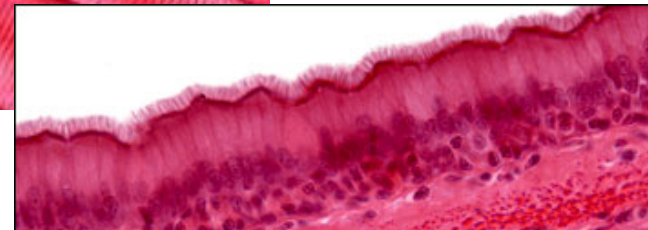
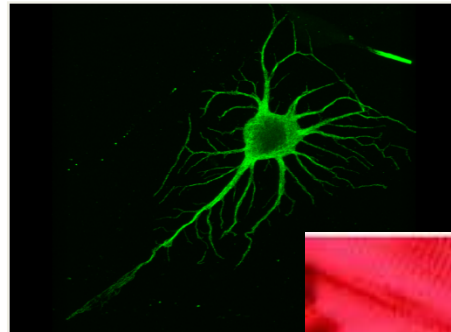
Organs grouped together to form the Organ system.

Levels of Cellular Organization



Organization of the Body

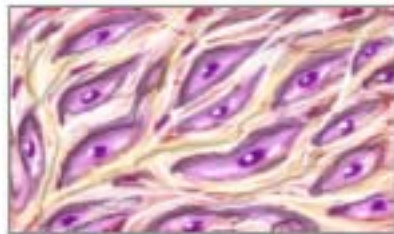
- Body has over 200 different cell types,
100 Trillion cells
- Cells can be put into four groups according to their cell function.
 - Neurons
 - Muscle cells
 - Epithelial cells
 - Connective tissue cells



Major Tissue Types

- Based primarily on cell function
- Correspond to four major cell types

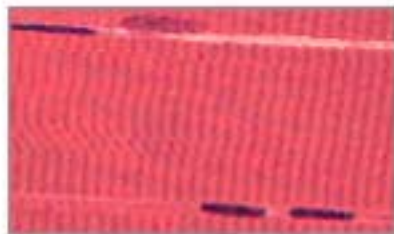
Four types of tissue



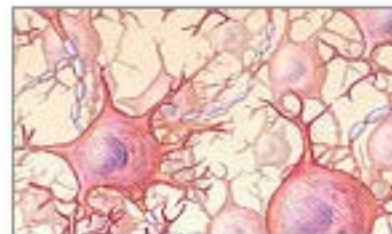
Connective tissue



Epithelial tissue



Muscle tissue

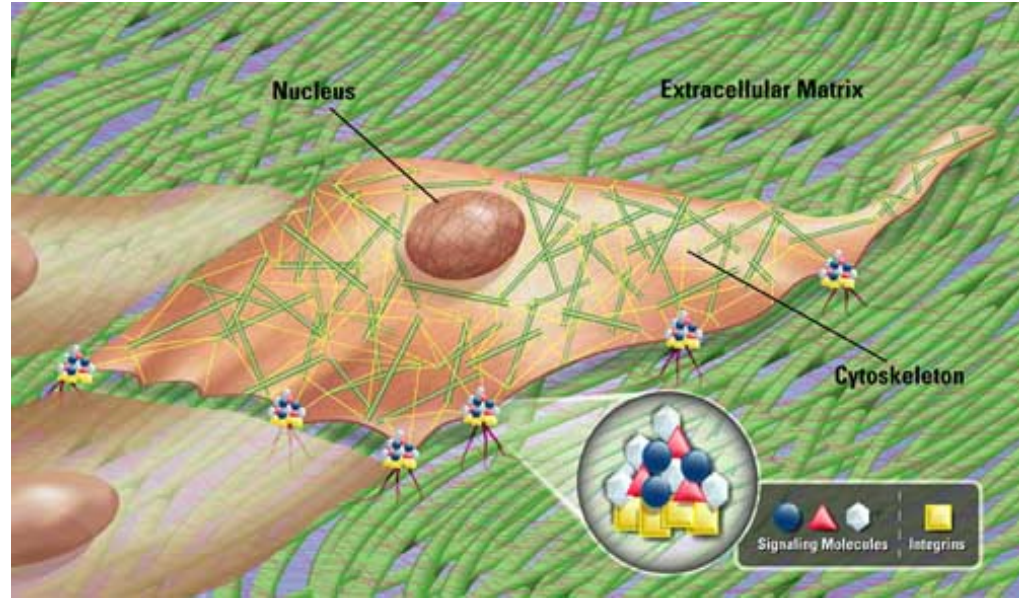


Nervous tissue

Terminology

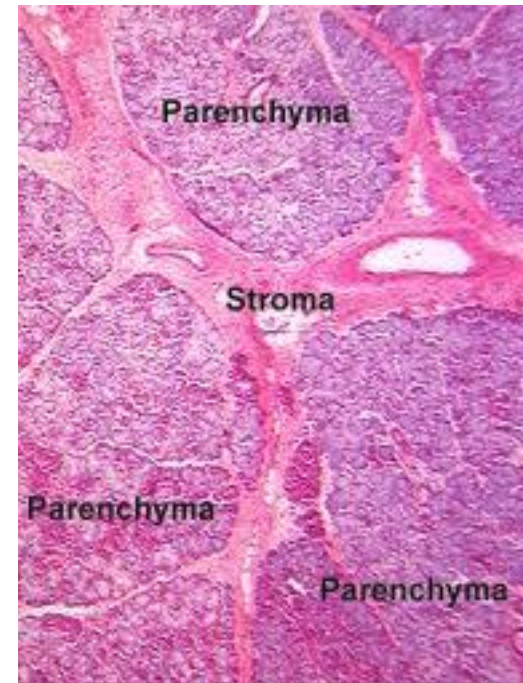
Tissues are composed of:

- Cells
- Extracellular matrix



Organs are composed of:

- Parenchyma (cells that perform main function of organ)
- Stroma (supporting tissue)



THE END



Next Week

The cell and its Organelles

Group 1: Friday 09:00
Group 2: Friday 11:00
in EZ-1-D01