Department of Dentistry

Second Class

General Histology

Lab: 2

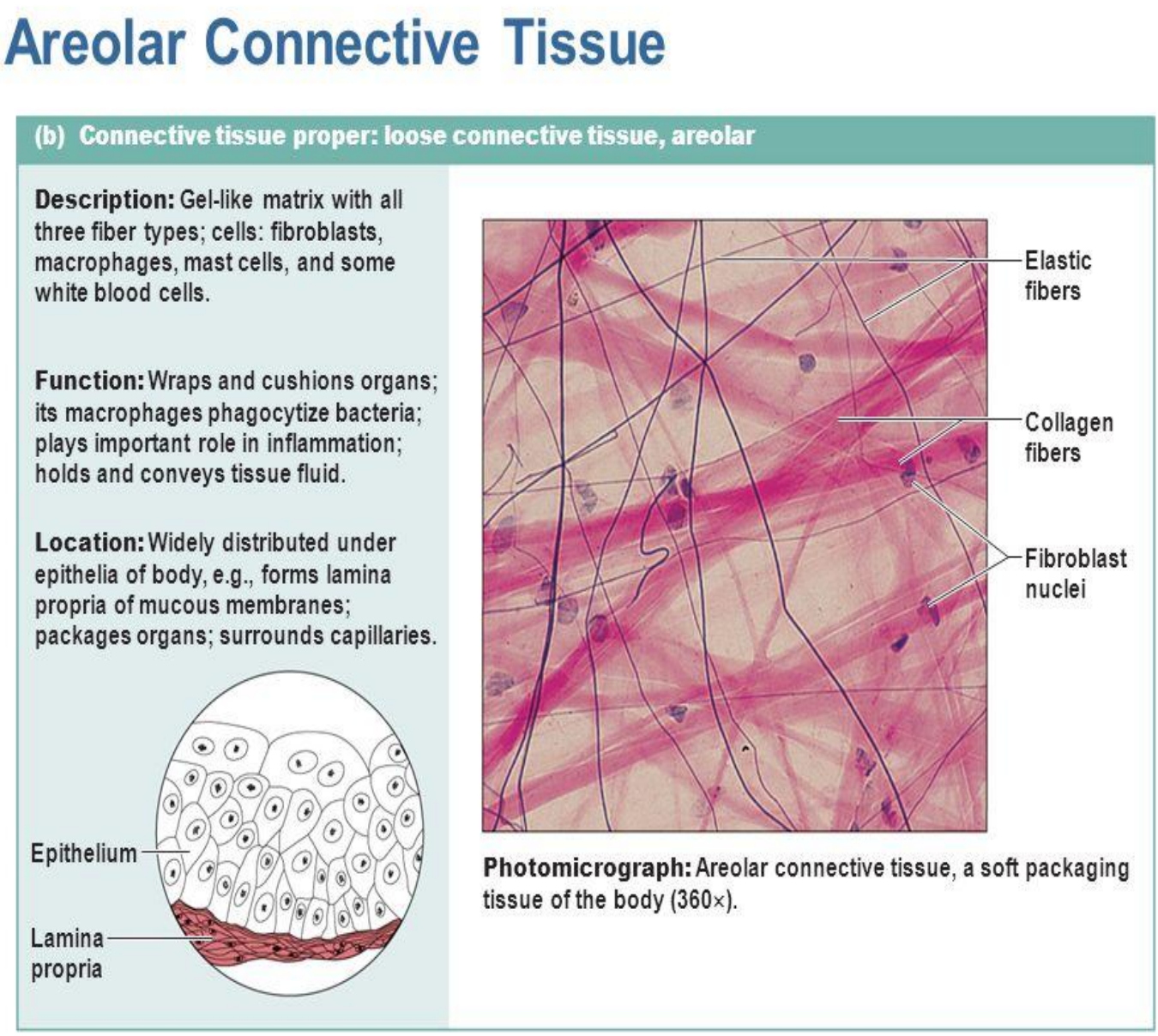
Dr.Lec. Fatima

Connective Tissue:

Connective Tissue Proper: Loose

Areolar connective tissue

- Gel-like matrix with all three connective tissue fibers
- Fibroblasts, macrophages, mast cells, and some white blood cells
- Wraps and cushions organs
- Widely distributed throughout the body



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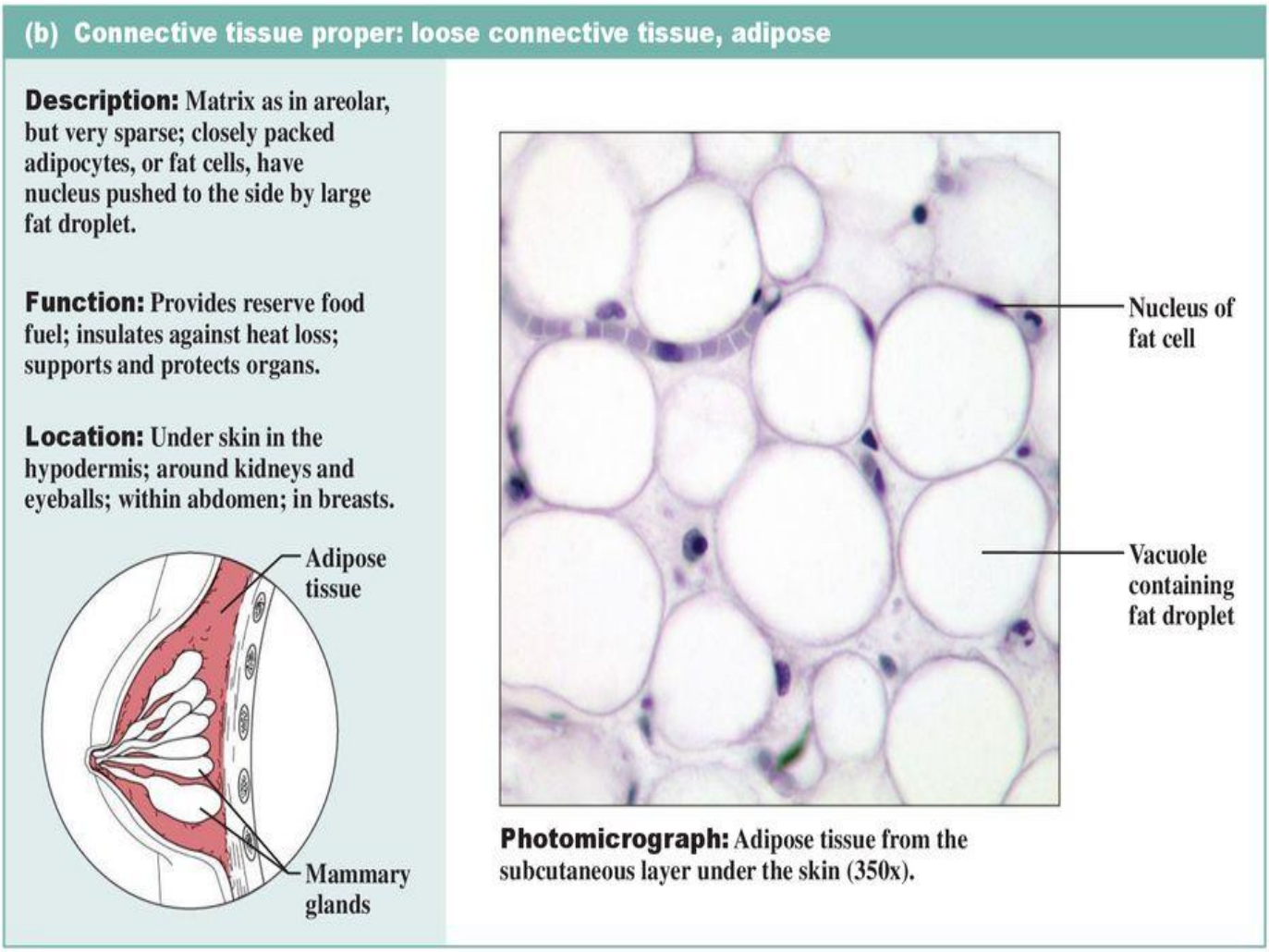
Figure 4.10b

Connective Tissue Proper: Loose

Adipose connective tissue

- Matrix similar to areolar connective tissue with closely packed adipocytes
- Reserves food stores, insulates against heat loss, and supports and protects
- Found under skin, around kidneys, within abdomen, and in breasts
- Local fat deposits serve nutrient needs of highly active organs

Figure 4.8b Connective tissues.



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Connective Tissue Proper: Loose

- Reticular connective tissue
  - Loose ground substance with reticular fibers
  - Reticular cells lie in a fiber network
  - Forms a soft internal skeleton, or stroma, that supports other cell types
  - Found in lymph nodes, bone marrow, and the spleen

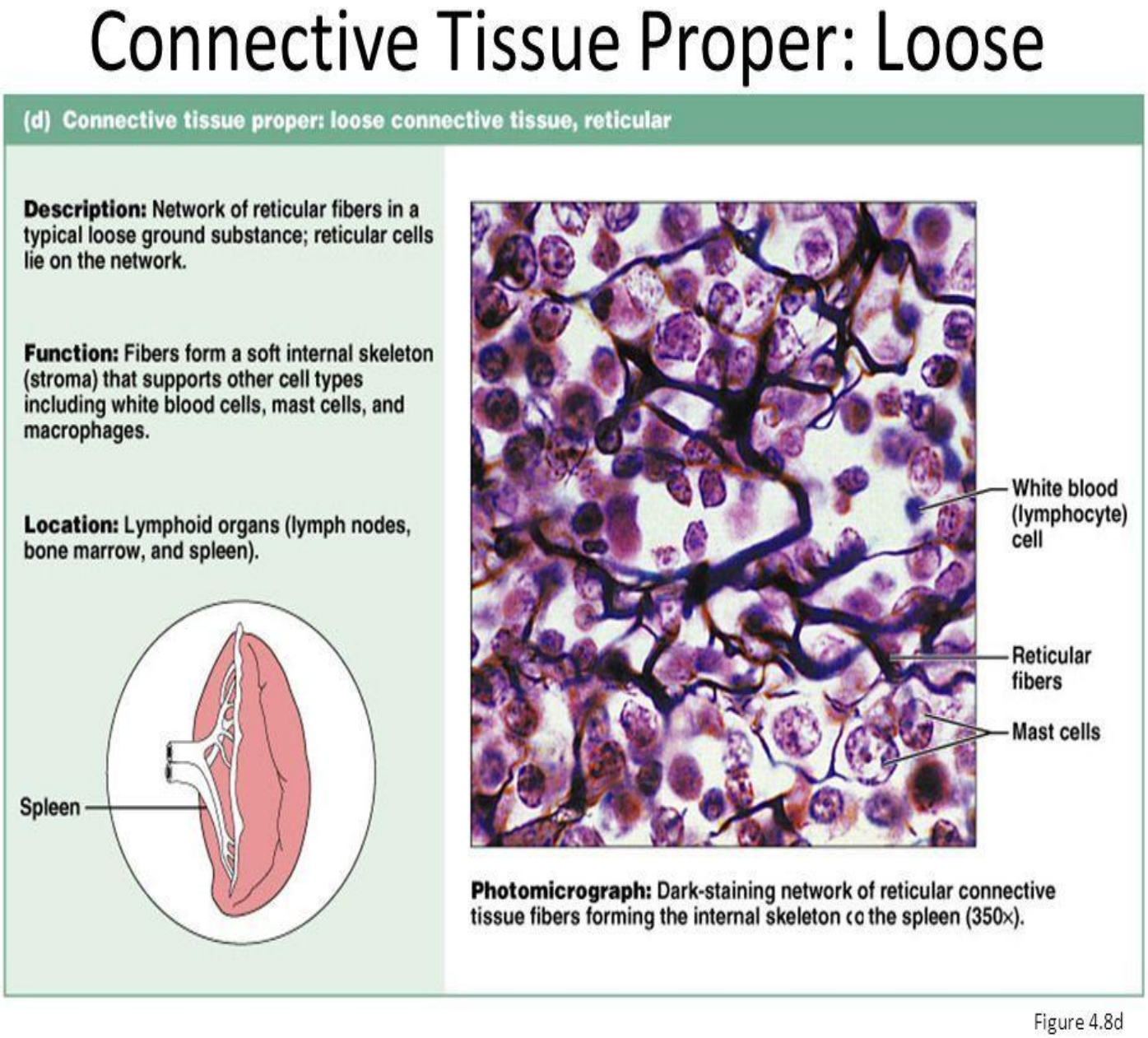
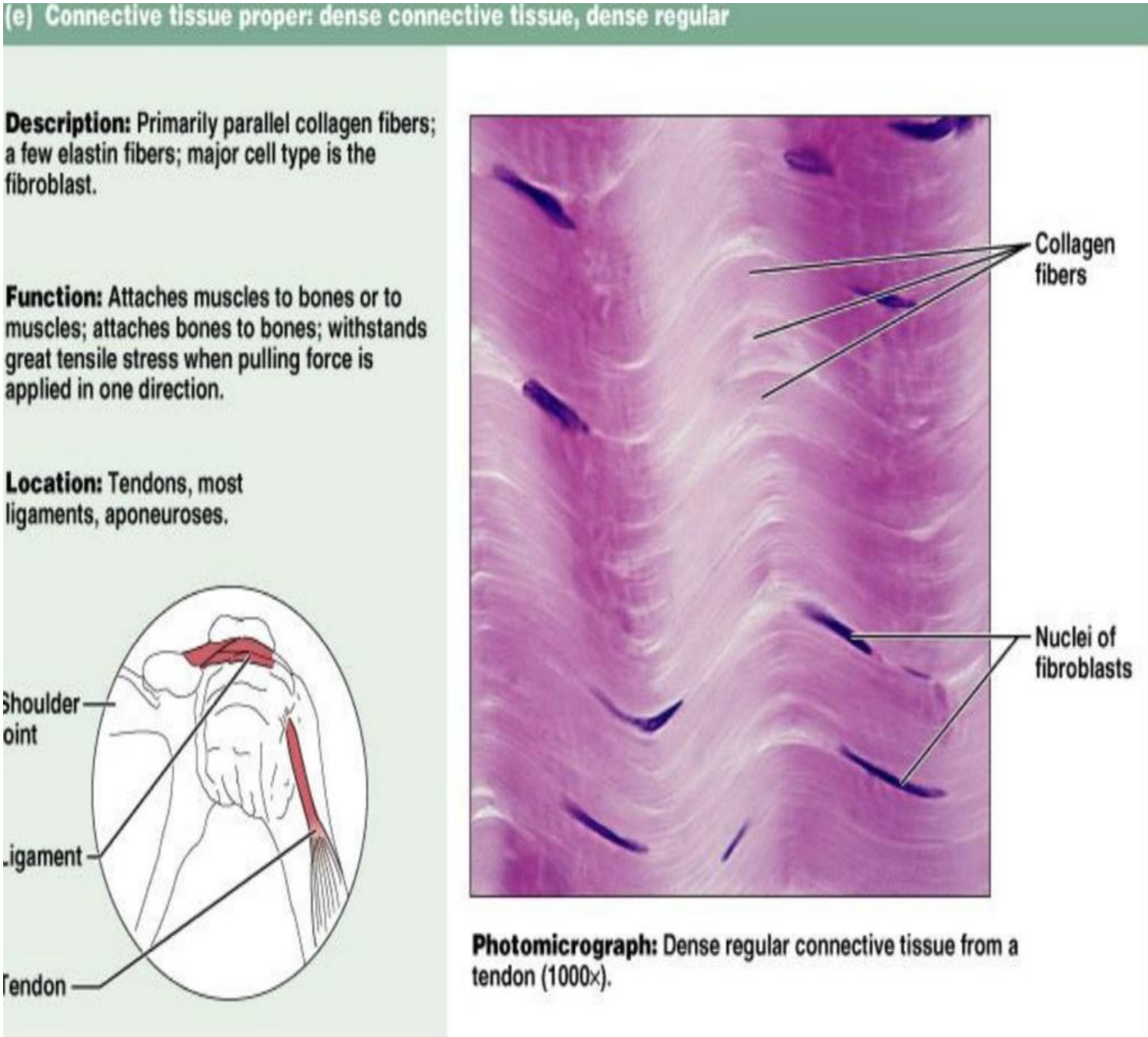


Figure 4.8d

Connective Tissue Proper: Dense Regular

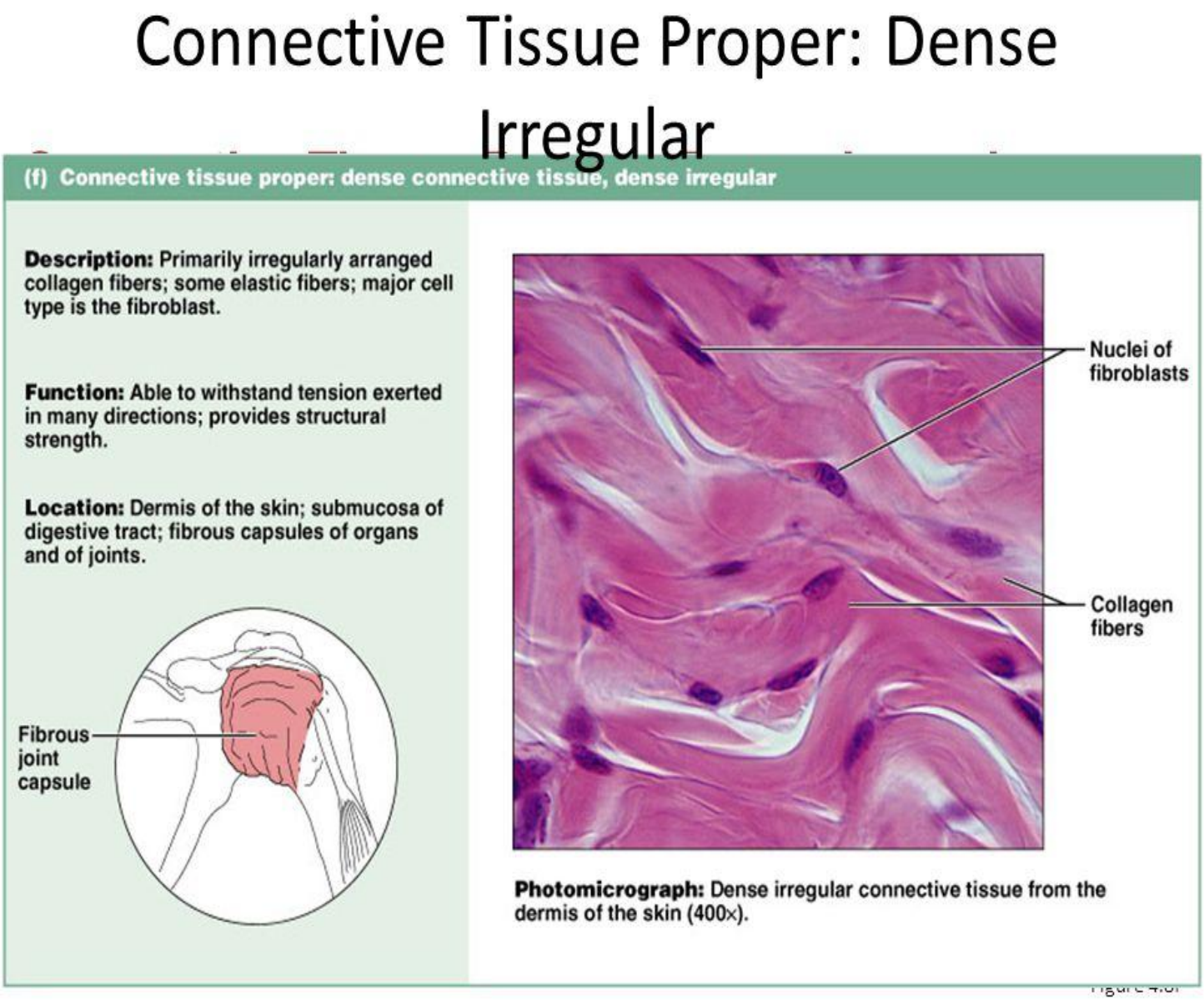
- Parallel collagen fibers with a few elastic fibers
- Major cell type is fibroblasts
- Attaches muscles to bone or to other muscles, and bone to bone
- Found in tendons, ligaments



Connective Tissue Proper: Dense Irregular

- Irregularly arranged collagen fibers with some elastic fibers
- Major cell type is fibroblasts
- Withstands tension in many directions providing structural strength

Found in the dermis, submucosa of the digestive tract



Connective Tissue: Bone (Osseous Tissue)

- Hard, calcified matrix with collagen fibers found in bone
- Osteocytes are found in lacunae and are well vascularized
- Supports, protects, and provides levers for muscular action
- Stores calcium, minerals, and fat
- Marrow inside bones is the site of hematopoiesis

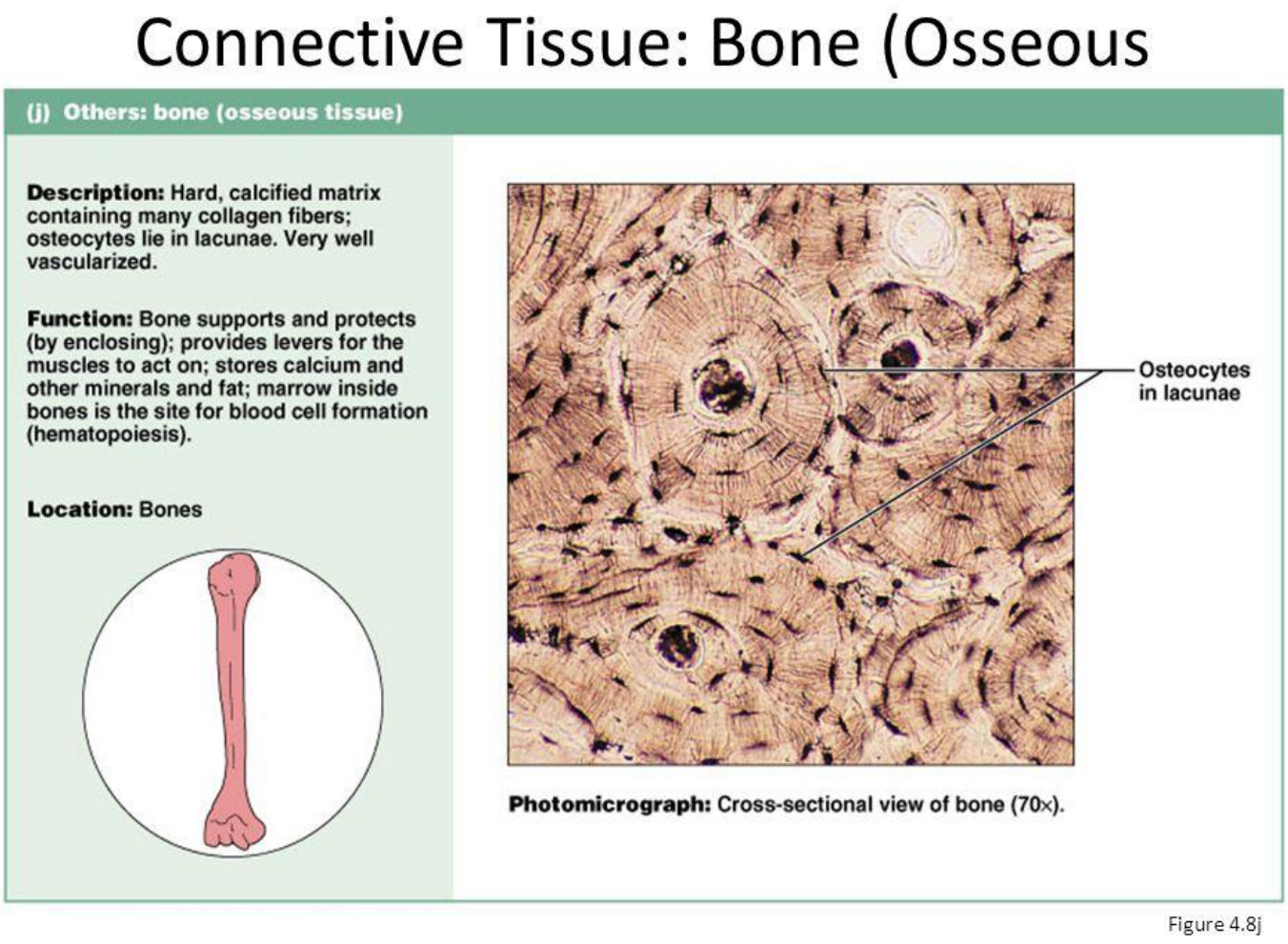


Figure 4.8j