**Items to Identify: Cell Structure II**

**Slides to Identify**

* Slide 109: Skin, hand, monkey
  + Observe artifacts
* Slide 118: Liver & spleen with colloidal carbon, rat
  + Colloidal carbon, Kupffer cells
* Slide 156: Pancreas (toluidine blue)
  + Identify structures based on shape, size, and intensity of staining
  + Acinus, acinar cell, and nucleus
  + Nucleolus- heterochromatin (dark, inactive), euchromatin (pale, active)
  + Nuclear envelope- 2-membrane system
  + Zymogen granules – apical
* Slide 158: Pancreas
  + Pancreatic acinar cell- pyramid shape, arranged in cluster
  + Basal end of pancreatic acinar cell toward periphery (basophilic-RER); apical end toward lumen (acidophilic-zymogen granules)
  + Lumen and nucleus of pancreatic acinar cell
  + Artifacts- large clear spaces between acini
* Slide 421: Tibia, fetal
  + Artifacts
* Slide 426: Renal artery and vein with nerves
  + Artifacts
* Slide 447: Duodenum, monkey (toluidine blue)
  + Artifacts
* Slide 454: Liver
  + Note size, shape, and location between blood sinuses of hepatocytes

* Slide 472: Fallopian tube
  + Artifacts
* Slide 475: Uterus, late proliferative endometrium
  + Artifacts

**EM’s to Identify**

* EM 1: Pancreas
  + Nucleus, nucleolus, euchromatin, heterochromatin, nuclear envelope
  + Basal and apical end, lumen, intercellular space
  + Ribosomes, mitochondria, rough endoplasmic reticulum, zymogen granules
  + Golgi apparatus
* EM 2: Liver
  + Plasma membrane, intercellular spaces
  + Mitochondria (few cristae, short), rough endoplasmic reticulum, free ribosomes, polyribosomes (grouped via common mRNA strand), bound ribosomes
  + Autophagic vacuoles (contain acid phosphatase, lysosomes)
* EM 4c: Intestinal absorptive cell, super nuclear region
  + Rough endoplasmic reticulum, budding
  + Coated vesicles in Golgi region
* EM 5: Liver
  + Nucleus, euchromatin, heterochromatin, nuclear envelope, nuclear pore
  + Mitochondria
* EM 7: Ascites fluid cell & EM 4c: Intestinal absorptive cell, super nuclear region
  + Golgi apparatus, Golgi vesicles
* EM 8h: Macrophage in testis
  + Observe artifacts
* EM 10b: Cardiac muscle
  + Mitochondria- lots of long cristae
* EM 10f: Arteriolar wall & EM 4c: Intestinal absorptive cell, super nuclear region
  + Ribosomes
  + Observe artifacts
* EM 20: Leydig cell
  + Mitochondria- tubular, associated with steroid production
  + Extensive smooth endoplasmic reticulum
* EM 21: Ductus deferens
  + Golgi
  + Stereocilia of ductus deferens
  + Microbodies (peroxisomes)