Lab 8 – Esophagus, Stomach and Intestines
Digital Histology: Digestive System – Tubular Digestive System (Esophagus, Stomach & Small Intestines)

Terms and structures to know

Layers or tunics of the alimentary canal (tract)
mucosa
- epithelium
- lamina propria
- muscularis mucosae

submucosa
- Meissner's plexus

muscularis (externa)
- Auerbach's plexus

serosa (or adventitia)

Esophagus
esophageal glands (mucosal and submucosal)
note organization of the four tissue layers, paying particular attention to the skeletal and smooth muscle in the muscularis externa
examine slides for MALT

Stomach
cardiac region
fundic region
pyloric region
gastric pits
cardiac glands
gastric glands
mucous neck cells
parietal cells
chief cells
enteroendocrine cells
pyloric glands

Large intestine
intestinal glands
goblet cells
absorptive cells
taeniae coli
appendix (review; examine layers)

Small intestine
duodenum
jejunum
ileum
plicae circulares
intestinal villi
microvill
intestinal glands or crypts of Lieberkuhn
absorptive cells/enterocytes
goblet cells
enteroendocrine cells
Paneth cells
Peyer's patches
Brunner's glands

Examine these slides. In addition to the instructions in italics below, in each slide you be able to identify the four layers of the wall of the alimentary canal including different sublayers of the mucosa and muscularis externa. Also be able to recognize/identify transitions between different organs:

47 – esophagus *identify skeletal and smooth muscle in muscularis externa; identify glands*

73 – trachea & esophagus *compare the cross-section of the esophagus to the section on slide 47*

48 – fundic stomach *identify glands and different cells within the gland*

49 – stomach & duodenum *identify the transition between organs; compare the pyloric stomach on this slide with the fundic stomach on the previous; identify glands (including Brunner's glands) and different cells within the glands*

50 – jejunum *good place to look for lacteals; note absence of Brunner's glands*

51 – ileum *look for Peyer's patches; compare to jejunum*

53 – large intestine *identify layers of wall, try to find tanieae coli, note goblet cells and glands*

56 – ileum & large intestine *see notes for slide 53*