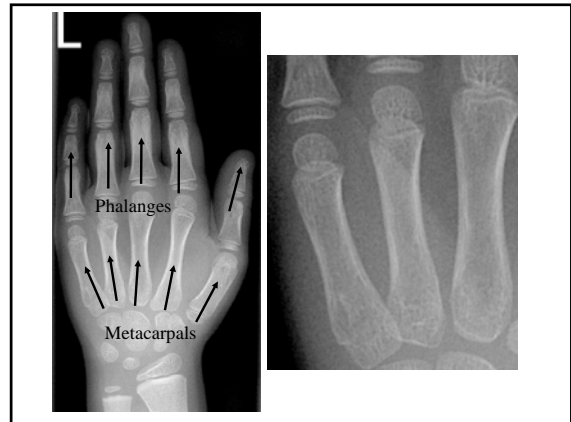


PROJECT BONE TEXTURE



TASK

- ☑ Segment bones
- ☑ Characterize bone trabecular pattern by texture features
- ☑ Are there differences between metacarpals and phalanges?

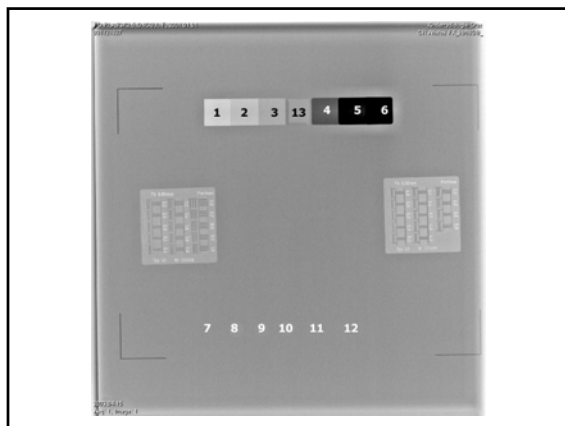
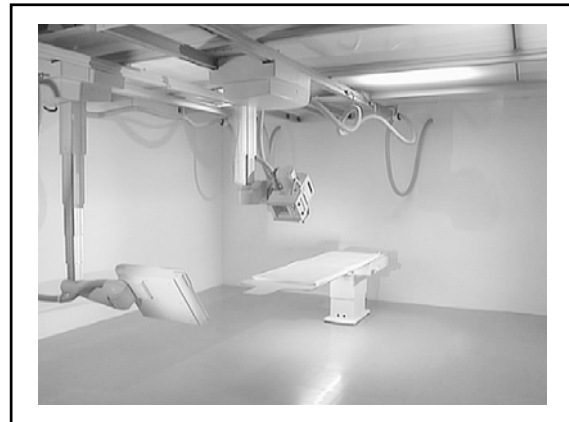
PROJECT
Central Path of
tubular objects



TASK

- Aproximate central path for sending a virtual camera**
 - Not using skeletonisation
- Do not follow smaller sideways**

PROJECT FLATPANEL - DETECTOR



TASK

Read out the DICOM tags for image acquisition:

- (0010,0010),
- (0018,0060), (0018,1110), (0018,1152)
- (0018,1153), (0018,1160)
- (0028,0010), (0028,0011)

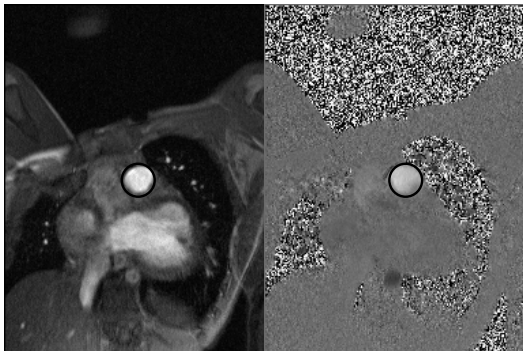
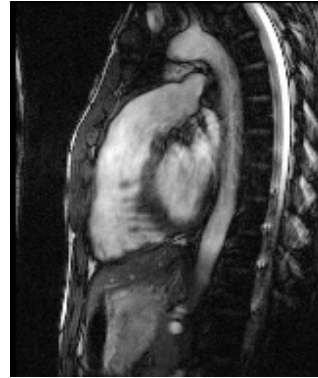
Find the corner of the image

Find the ROI's

Calculate

- ROI statistics, absolute and relative, texture

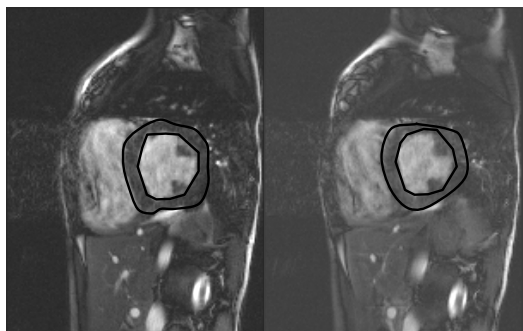
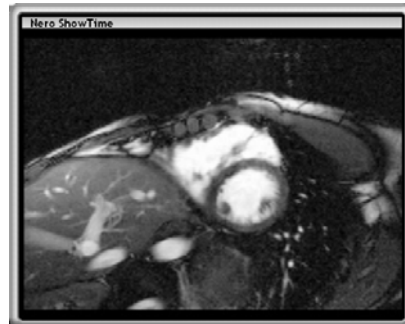
***PROJECT
FLOW***



TASK

- Find vessel contour in anatomic image**
 - Attention: vessels changes position during herat cycle
- copy to flow image**
- derive statistics from flow image**
 - Forward & backward propotion

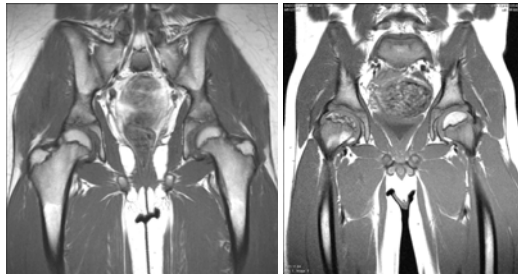
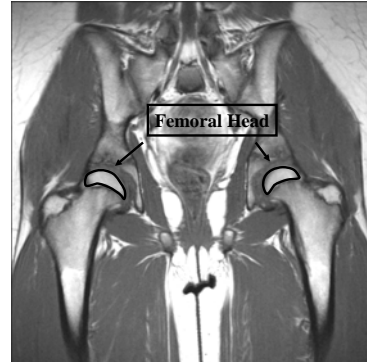
***PROJECT
HEART
SEGMENTATION
(left ventricle)***



TASK

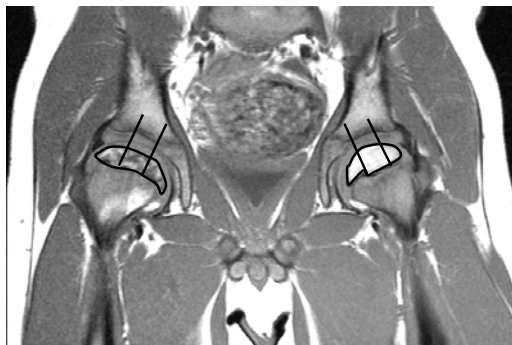
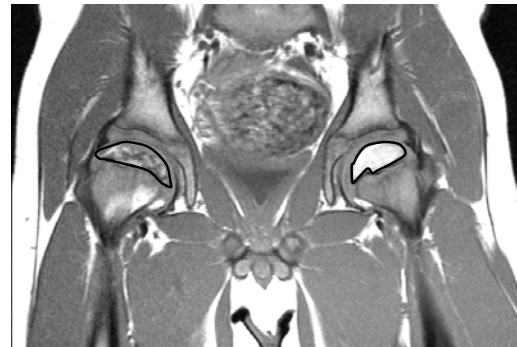
- FIND HEART CONTOUR (left ventricle) during heart cycle**
 - Tip: sort images by heart time
 - in DICOM TAG 0018x1060

PROJECT HIP PERFUSION



normal

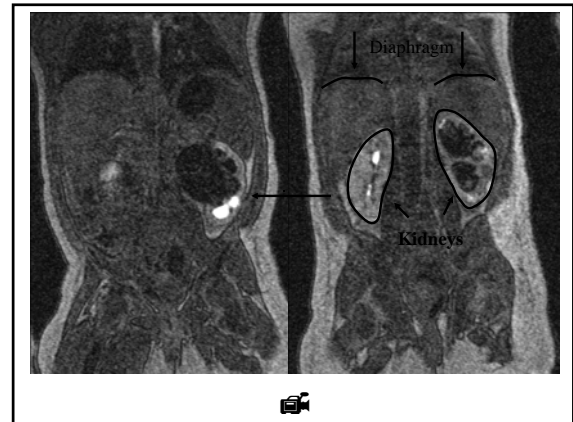
pathologic



TASK

- Find femoral head
- Compare both sides by morphologic features
- Compare both sides by texture features
- divided each femoral head in 3 parts
- compare morphologic and texture features for both segments
- are there differences between normal vs pathologic cases?

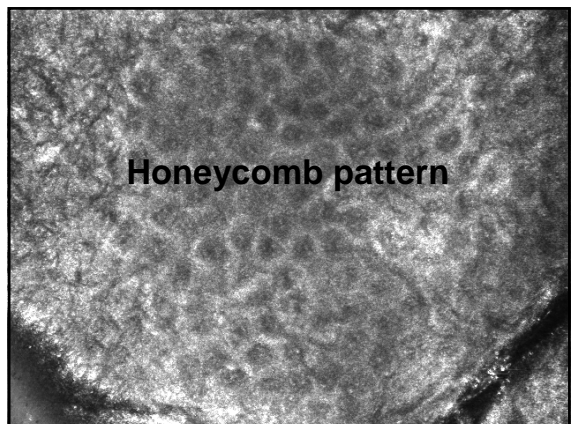
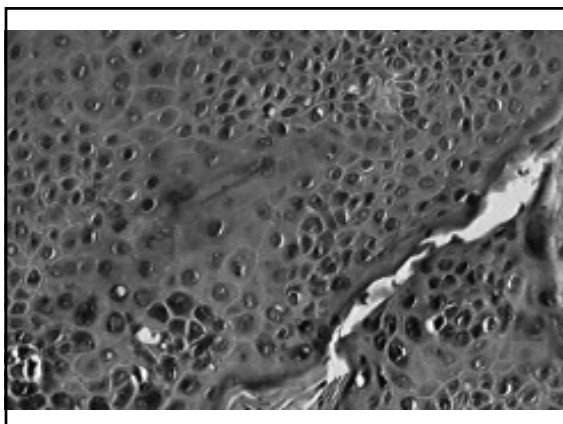
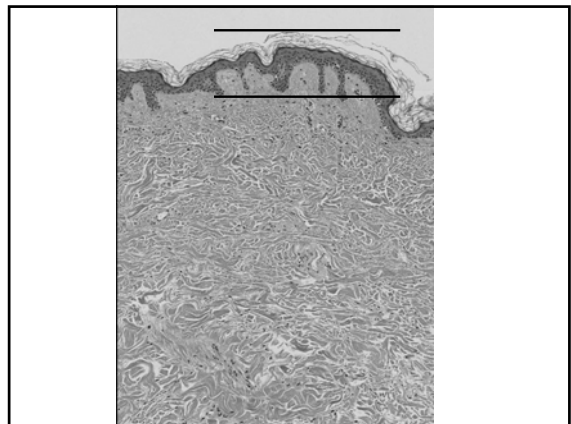
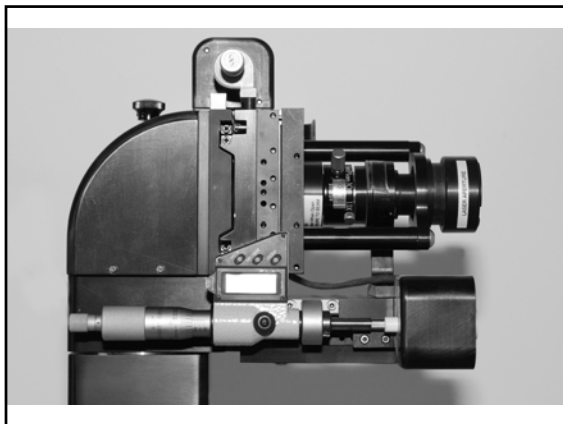
PROJECT KIDNEY

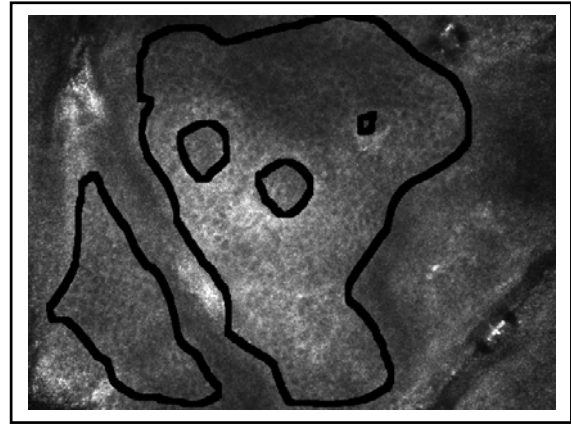
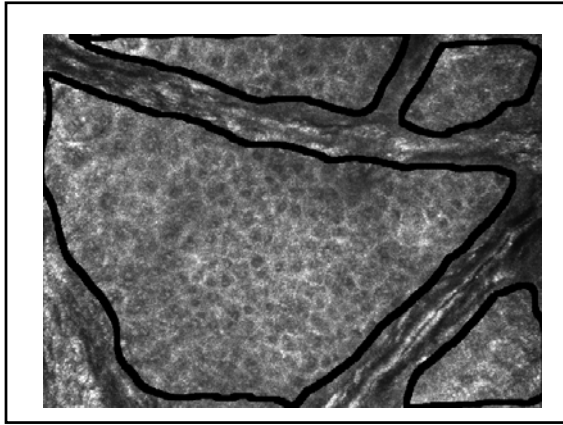


TASK

- ☑ Find kidney contour on best perfusion image -> make mask
- ☑ Register diaphragm movement
- ☑ copy mask according diaphragm movement to all images
- ☑ Subtract 0 images (first series) from all others
- ☑ Display chart: signalintensity vs time

***PROJECT
LASERMICROSCOPY
TISSUE TEXTURE***

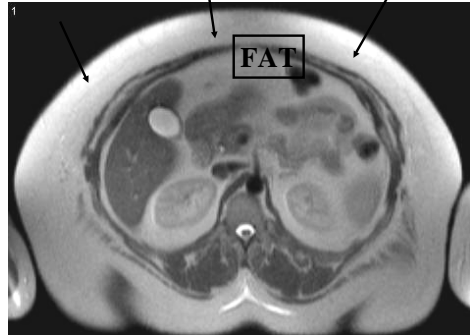




TASK

- ☑ Find connected areas of honeycomb pattern
- ☑ Characterize by texture, statistics
 - Small areas of honeycombing
 - Connected areas of honeycombing

***PROJECT
TISSUE***



TASK

- Find fat (especially body trunk)
- Correct inhomogeneities (-see paper, eg. edge preserving smoothing)
- Segment fat
- Compute statistics of fat distribution on slice/volume basis