Tissue Preparation (within one hour of surgical removal of the tissue):

I. **Snap frozen sample:**
   1. Tissue is cut into 0.5 cm$^3$ sections and mount in OCT in cryomold
   2. Entire cytomold is place on the surface of liquid nitrogen until OCT is solidified
   3. (optional) Tissue blocks can be stored in -80°C freezer
   4. Frozen section are cut at 7µm with a cryostat and mounted on foil slides
   5. Tissue sections are immediately fixed in 70% ethanol for 30 sec
   6. Stain with 1% methyl green for 5sec and wash in distilled water
   7. Dehydrate the sample in 70% ethanol for 30sec and then in 95% ethanol for 30sec.
   8. Air dry.

II. **Paraffin embedded sample:**
   1. Tissue is placed in formalin overnight on rocking platform
   2. Tissue is dehydrated through an ascending series of ethanol, cleared in xylene and embedded in paraffin
   3. Paraffin-embedded sections are cut at 7µm with a microtome and mounted on foil slides
   4. Tissue sections are deparaffinized in xylol for 2min
   5. A descending series of ethanol is used: 100% 30sec for twice, 95% 30sec for twice, 70% 10sec, and then dH$_2$O 10sec.
   6. Stain with 1% methyl green for 5sec and wash in distilled water
   7. Dehydrate the sample in 70% ethanol for 30sec and then in 95% ethanol for 30sec.
   8. Air dry.

- The choice of staining depends on the tissue type under study. It is important to note that haematoxylin may affect the DNA template such that subsequent PCR yield may be compromised (ref. Biotechniques 24:86-92)
- DNA quality may vary in archival formalin fixed tissues. Both quality and quantity of DNA may require increased amount of dissected tissue prior to DNA digestion in order to provide adequate DNA template for subsequent reactions.