THICK SECTIONING REFERENCE

The following information is to help the requester understand the scope of the technique the RHCL uses to obtain sections at a thickness of 8 to 100 microns.

Procedures: The investigator must submit a request via the iLab system for thick sectioning. Routine thickness for cutting both paraffin and frozen blocks is 7 microns and less. Therefore, thick sectioning applies to samples cut at a thickness of 8 microns or more.

*Please note: For any thick sections set to be used for RNA extraction or molecular analysis at a later time, we highly recommend that service of DNA/RNA prep be requested alongside the cutting of sections in order to prevent contamination.

Scope:

Paraffin Sectioning

1. The microtome station (including microtome and sectioning instruments) will be cleaned with disinfectants and treated with DNA/RNase decontaminant solution (if prep is requested).

2. If DNA/RNA prep is requested, the microtome blade will be changed for each sample in order to prevent cross-contamination.

3. Sections will be cut from 8 microns up to 100 microns according to the request made.

4. Thick sections will be placed onto the requested type of glass slides.
   a. Regular (uncharged) slides are recommended for extraction procedures and techniques where tissue needs to be easily removed from the slide.
   b. Plus (charged) slides are recommended for any staining procedures or techniques where tissue needs to adhere to the slide for optimal results.

5. Samples and slides (in a slide box) will be stored until checkout.

LCM Sectioning

1. All steps above will be performed. However, microdissection slides can also be used in the place of the slides mentioned in step 4. These slides can be provided by the requester or by the RHCL.

Frozen Sectioning

1. All steps above will be performed at a cryostat station. Sectioning will be done at -20°C.

2. Samples and slides will be stored at -20°C (or -80°C if requested) until checkout.

If there are any questions regarding the services offered, please contact the Research Histology Core Lab at (713) 792-3119 or via email at RHFCoreLab@mdanderson.org.