Cryostat Sectioning

Lessard Group, GUDMAP Consortium

- Place mold in the cryostat chamber for a several minutes to equilibrate temperature. We routinely section at -18°C to -23°C. Place OCT on the chuck and let it cool but not freeze. Remove the block from the mold, place it on the chuck, and let it freeze in position. If the location of the tissue is known, the block can be trimmed with a fresh razor blade to minimize the size of the section. Trim the surface of the block in 50 micron slices until the tissue can be seen. If necessary, trim the surrounding block with a razor blade at this time.
- 2. Cut 9 micron sections for the Arcturus Veritas LCM. Collect specimens at regular intervals on glass slides and inspect them to determine whether the tissue of interest is present.
- 3. Use PEN (Polyethylene Napthalate coated) glass slides (Arcturus) to collect the sections of interest. Space the sections so that the collector cap can rest with one tissue section centered, and with no other tissue section under the edges. For example, we put 5-7 sections of newborn bladder on a slide.
- 4. As soon as the sections are collected, place the slides in a slide box with dry ice.
- 5. Store the slides at -80°C for up to two days until prepared for LCM.