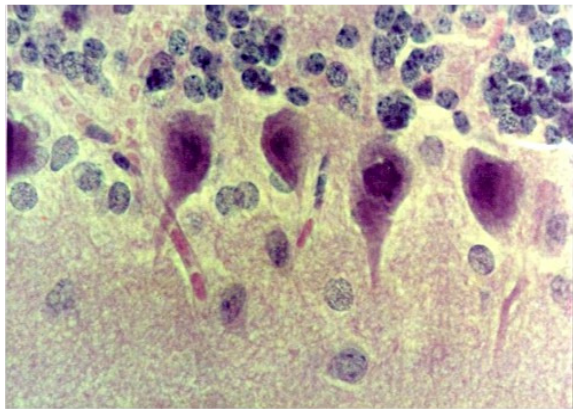


Tape-Transfer Method for Serial Frozen Sections of Brain

[Dr. Christian B. Skinner](#) and [Emmanuel Mineo](#), Leica Microsystems, Biosystems Division

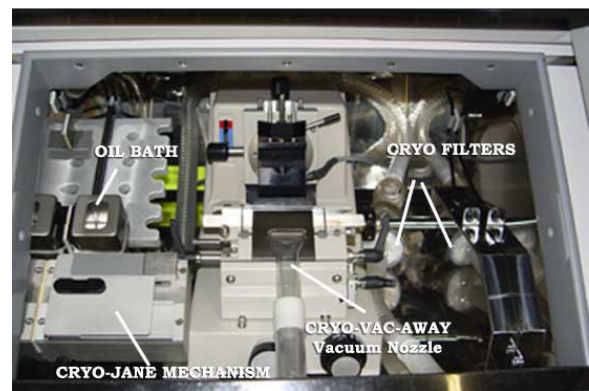
Cutting a frozen section with a brush or anti-roll plate can prove to be a frustrating endeavor. Sections can compress, curl, chatter, tear or fold. When finally mounted, the section can still wash off during staining. All of these complications can make true serial sectioning a difficult, if not impossible task.



Leica Microsystems has developed the [CryoJane Tape-Transfer System](#) to eliminate the problems normally encountered during cutting and staining frozen tissue sections. This patented process has revolutionized frozen sectioning and is recognized by leading pathologists and researchers as the premier method for obtaining high-quality sections of frozen tissue that is difficult to cut.

When a specimen is frozen prior to sectioning, ice crystals form. Conventional frozen sections are melted onto room temperature slides prior to fixation. Coupled with slow freezing, this uncontrolled melting is a major contributor to the formation of ice crystal artifacts and poor quality of sections. Other artifacts such as compression, folds, and wrinkles are also common. This is especially common when trying to obtain serial sections and can often lead to frustration over poor results.

The CryoJane Tape-Transfer Method addresses the hurdles associated with cryotomy by utilizing cold adhesive tapes and slides. The cold adhesive tape supports the section as it is cut and routinely captures sections without folds or wrinkles. The frozen section on the tape is transferred to a cold, adhesive coated slide inside the cryostat. The section remains frozen and the morphology is preserved. This process produces a frozen section with minimal ice crystal artifact and the cellular structures preserved. The ease of acquiring high quality sections and then transferring them to a cold adhesive slide, makes serial sectioning a snap.



The [CryoJane Tape-Transfer System](#) produces frozen sections of paraffin-quality as thin as 2 microns in less than 3 minutes. Today, with the CryoJane, pathologists can routinely and easily prepare very high-quality frozen sections cost effectively that are wrinkle-free, uncompressed, fully intact and bonded to the microscope slide.