

Here are some suggestions from Dr. Shigeki Watanabe for preparing your samples for cryo-preservation prior to using the HP02 High Pressure Freezer:

“For small animals like *C. elegans* or fly larvae, no fixation is necessary prior to freezing. For cultures, we typically culture them on sapphire disks, but aclar disks should also work (if you need aclar, contact Doug Keene or Sara Tufa Gonzales 5-3-221-3434). Acute mouse brain slices typically do not work well. No matter what layer we look at, there is a mechanical damage. Organotypic cultures are much better. Organotypic cultures can be frozen live with cryoprotectant (20% BSA).” Samples must be trimmed to fit within a circular freezing planchet with a diameter of 1.5mm and height of 0.1mm).

Here are suggestions for preparing your samples for imaging in the Hitachi TM4000 SEM:

The TM4000 is a variable pressure SEM with backscatter and secondary electron detectors and a rudimentary cryo-stage. Many samples such as leaves, particles, bugs and others can be imaged fresh.

Wet samples (such as the algae imaged in the included image) can be frozen on-site and imaged while still frozen. Tissues can be frozen with cryoprotectant (20% BSA) or critically point dried (there is a dryer at Shriners Hospital...contact Doug Keene or Sara Tufa Gonzales 503-221-3434) for scheduling.