

Cryo Correlative Workflow: Imaging the near to native state across multiple Microscopy platforms

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“Cryo” stands for the fixation or immobilization of biological samples such as cells or tissues in amorphous – non-crystalline – ice. This method of fixation preserves cells and tissues from decay due to autolysis or putrefaction. During the subsequent imaging process the sample is kept in the frozen (also called vitrified or frozen-hydrated) state to maintain the ultrastructure of the specimen.

A cryo sample is then considered as fixed in the near to native state because no chemical fixative has been added which might alter the structure of the specimen.

Therefore, this method is considered as the gold standard of *fixation and preservation for imaging* in Life Sciences.

In this talk we will introduce the workflow that goes from sample preparation to Cryo Confocal and Cryo FIB-SEM, until the delivery of the cryo-TEM lamella ready for the final cryo-EM analysis at sub-molecular resolution.