

New electron microscopy technology provides unprecedented resolution in 3D.

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Recent technological advancements in the field of electron microscopy have focused on two principle areas. One is the introduction and optimization of sophisticated preparative technologies and techniques for improved retention and visualization of labile structures often lost during routine processing thereby improving structural preservation. The other area involves the introduction of advanced imaging technologies including high resolution transmission and scanning electron microscopes. This improved ability for visualization can offer significant structural information, including high resolution 3-dimensional imaging of viruses, bacteria, macromolecular complexes, and subcellular components for the study of host-pathogen interactions, thus improving our ability to relate structure to function and providing information which may identify vaccine targets or other intervention strategies.