

The National Center For Cryoem Access And Training : Nationwide Access To Cryoem Technology And Curricula

E Eng¹, E Kopylov², C Dubbeldam³

¹New York Structural Biology Center ²National Center for CryoEM Access and Training, ³New York Structural Biology Center ⁴

eeng@nysbc.org

Cryogenic electron microscopy (cryoEM) is a method to image frozen-hydrated biological molecules to provide a more accurate model of the molecules and a greater understanding of biological function. Recent advances in cryoEM technology have made it possible for biomedical researchers to obtain detailed images and structures of many macromolecular complexes that cannot be obtained using other methods. The NIH CommonFund established the Transformative High Resolution Cryo-Electron Microscopy program to create national cryoEM service centers to provide access to the technology and support the development of cryoEM training curricula to build a skilled workforce. The National Center for CryoEM Access and Training (NCCAT) service center based in New York provides scientists with access to state-of-the-art cryoEM technology and training, from sample preparation to collection of high-resolution data and computational analysis. An important component of NCCAT's mission is to increase hands-on training and the availability of instructional material on cryoEM methodology. At the center, we bring the most current best practices to assist researchers to access new technologies and accelerate their research. Taken together we aim to lower the barriers of access and cross-train biomedical researchers to broadly utilize cryoEM techniques.