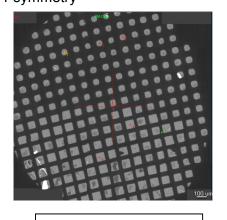
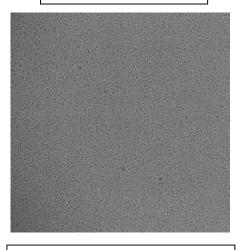
## **Supplementary Information**

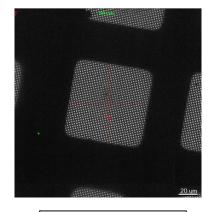
Size of Particles (kDa): 72 kDa Symmetry: C1 symmetry



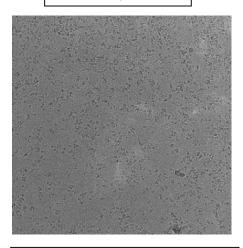
Low Mag 280X Atlas



High Mag micrographs of truncated METTL3-METTL14

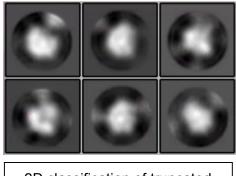


Low Mag 2600x

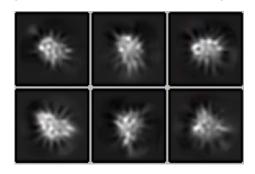


High Mag micrographs of fulllength METTL3-METTL14

A dataset above was collected on a FEI Talos F200C microscope with side-entry holder and a Falcon 3 camera in linear mode at 200kV. The collected movies and resulting particles were processed using Relion.



2D classification of truncated METTL3-METTL14



2D classification of full-length METTL3-METTL14

Due to the relative small size of truncated METTL3-METTL14 complex (72 kD) and the linear mode of Falcon 3 camera, the signal to noise ratio is insufficient for a clean 2D classification without signs of overfitting, but it has improved greatly compared with the full-length protein. We expect to obtain a higher resolution map with K2 camera in super-resolution counting mode. Therefore, the access to NCCAT's EM facilities is essential for the success of this project.