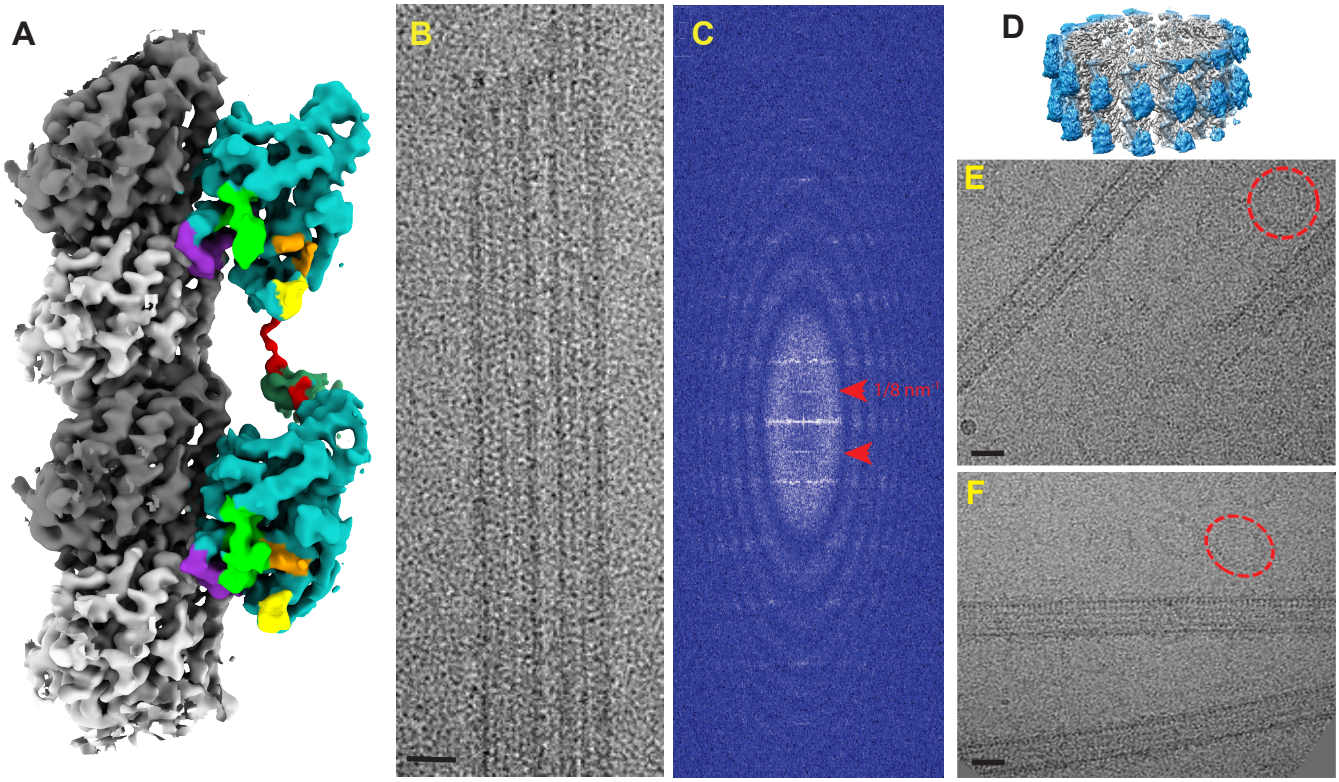

Fig. 1. **A)** Preliminary cryo-EM 3D reconstruction of Kinesin-1 (*Hs*KIF5B) dimer in complex with Taxol stabilized microtubules in the presence of AMP-PNP (resolution ~3.5 Å). **B)** Cryo-EM image (movie average) of kinesin-8 (*Hs*KIF18A) in complex with Taxol stabilized microtubules. **C)** Power spectra of image in B (compressed in the horizontal direction). The power spectrum shows layer lines typical of helical specimens. The visible ~1/8 nm 1 layer line indicated by the red arrowheads is typical of microtubules decorated with microtubule binding proteins, such as kiensins, that have a binding site on each tubulin heterodimer. This layer line is not visible or very weak in non-decorated (naked) microtubules. **D)** Preliminary 3D map of kinesin-13 (*Dm*KLP10A) in complex with Taxol stabilized microtubules in the presence of ADP-AlFx (resolution ~8 Å). **E-F)** Cryo-EM images of KLP10A microtubules and tubulin ring complexes obtained in the presence of ATP. Note the tubulin ring depolymerization intermediates (red circles). Images taken with 0º (E) and 40º tilt (F).