



**CryoSPARC processing workflow for single-chain ClpX<sup>ΔN</sup>/ClpP particles.** Above we have depicted a typical processing workflow for our ClpXP complexes. This workflow has been applied for substrate-free complexes as depicted above, and for the substrate-bound complexes we wish to image at PNCC. **(a)** Single-chain ClpX<sup>ΔN</sup>/ClpP structures derived from mixtures of singly and doubly capped particles. **(b)** Single-chain ClpX<sup>ΔN</sup>/ClpP derived from singly capped particles. Note that singly capped particles are an extracted subset of the full particle stack. Job names, job details, and non-default parameters (italicized) are noted in each box. [adapted from Ghanbarpour et al. 2023 bioRxiv (accepted Nature Communications)].