

ABSTRACT from Line Marie Christiansen:

From expression to purified protein: a P4-ATPase for CryoEM studies

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The *Saccharomyces cerevisiae* P4-ATPase Neo1p is believed to function as a lipid flippase, translocating lipids towards the cytosolic leaflet of both Golgi and endosome membranes. In order to screen around both functional and structural studies to ascertain the exact role and function of Neo1p an efficient high-yield expression and purification protocol is vital. By overexpression in *S. cerevisiae* and purification based on a high-specificity tag we are left with a pure protein sample ideal for both structural and functional studies. For CryoEM detergent-exchange into LMNG can be easily performed, with some attention to detergent concentration