

Your Name: Richard Walsh
Your PI's Name: Li
Your collaborator Name(s):
Collaborator PI's Name(s):
Project ID: CEMC0000

Describe project progress including previous pitfalls and what you did differently (500 words maximum): Previously, my membrane protein sample was exchanged into amphipol A8-35 to prepare sample in a detergent free solution. Sample was very monodisperse as judged by size-exclusion chromatography and by negative stain (not shown). Screening of this sample on the Talos Arctica revealed that this sample in A8-35 exhibits an extreme orientation bias (almost all top views) as shown in figure 1. In the new sample I want to screen, I have optimized sample preparation in detergent in the hopes that this will alleviate the preferred orientation.

Preliminary data: biochemistry-related files (evidence of biochemical homogeneity such SDS page, SEC traces etc.) and negative stain images or 2D classes

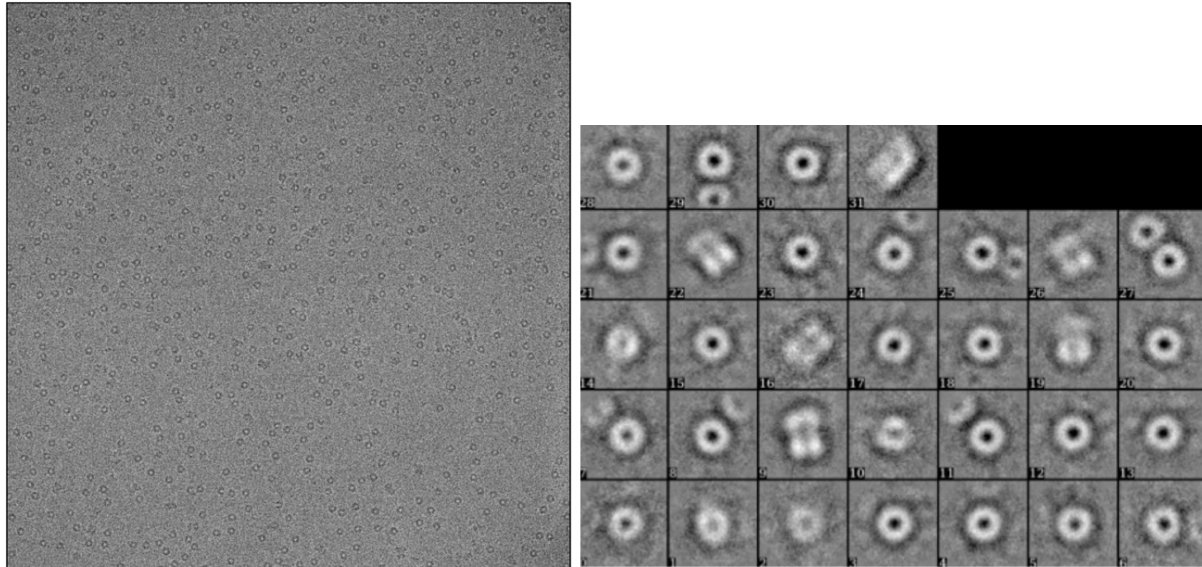


Figure 1: Protein in detergent exhibits a preferred orientation clearly visible in a representative micrograph (left) and 2D class averages (right).

Requested number of sessions on the Talos Arctica (up to 4):
Phase Plate Required (Y/N): No