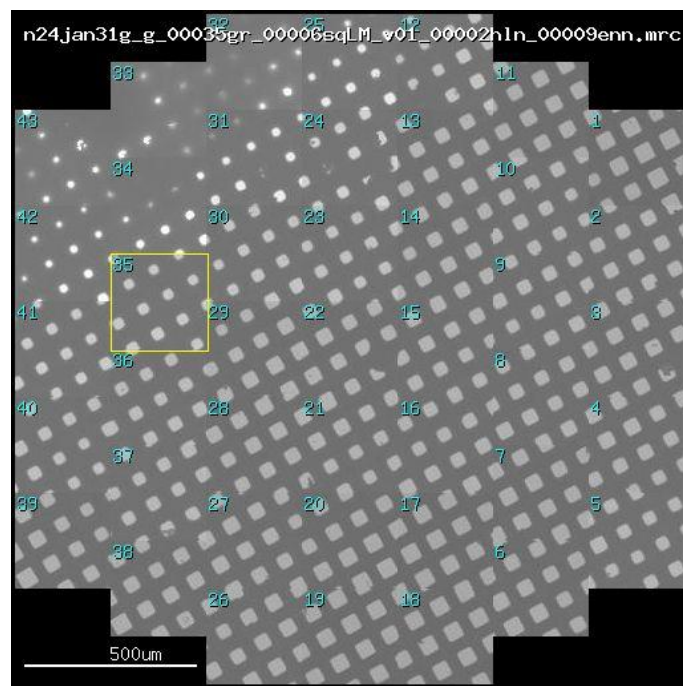
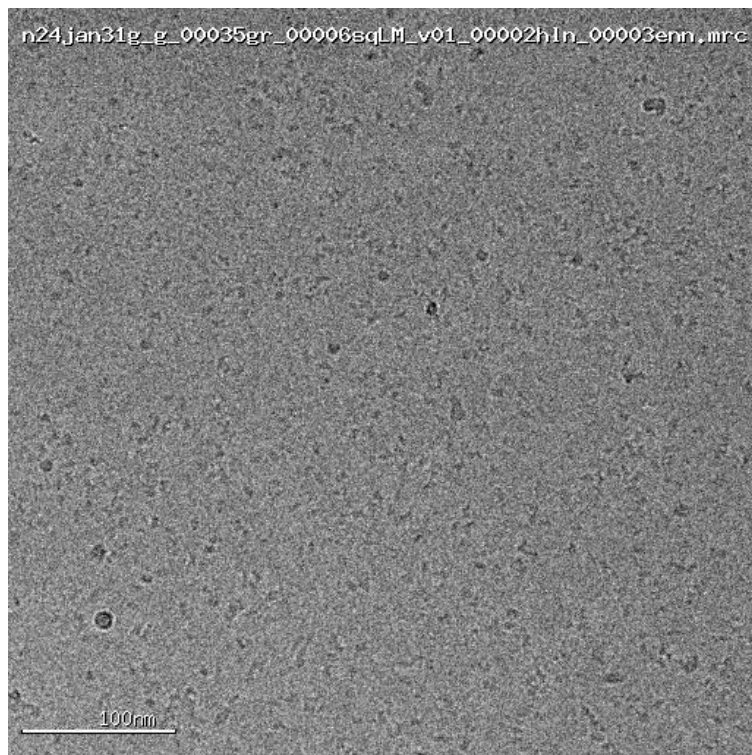
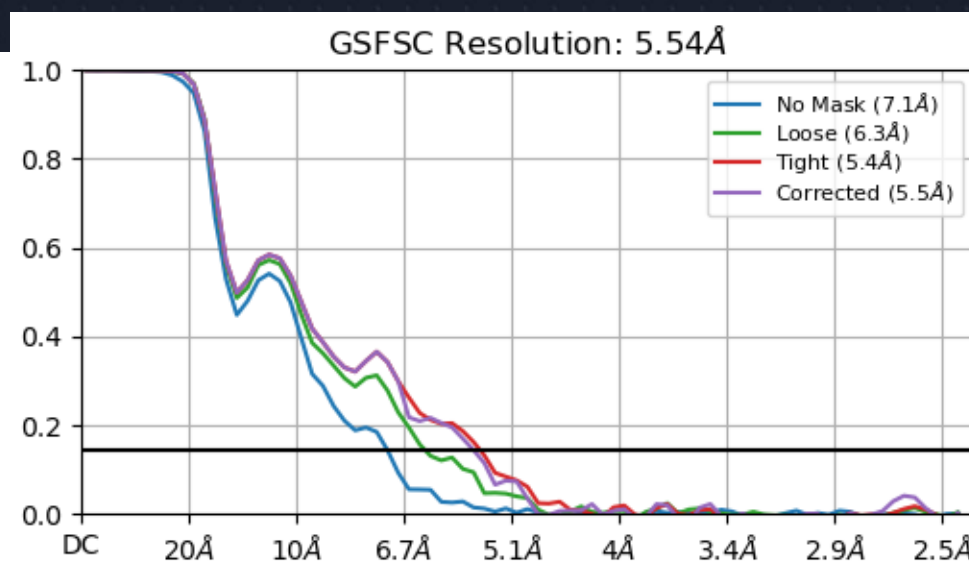


### **Bradley Williams NCCAT-GUP3-BG230630 RAP1 Proposal**

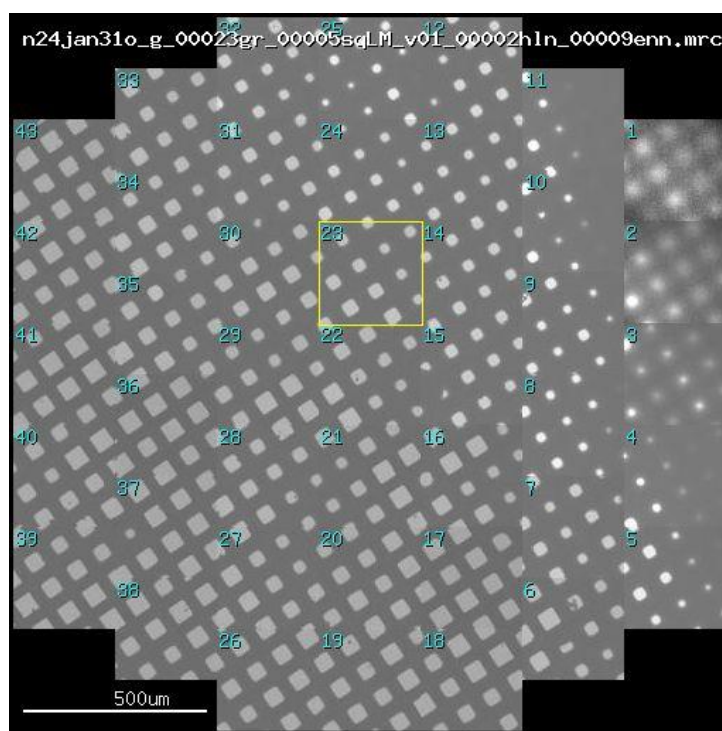
During the GUP3 screening session in October, we made samples using our protein GRLMR with the intention of adding two small molecules (NADPH and  $\text{SeO}_3$ ) which bind within the protein structure. From our screening session in October, we were able to produce several Krios-ready grids and submit a RAP1 proposal. From the Krios data we were able to obtain a  $\sim 3.2 \text{ \AA}$  structure, and we are still working through some of the data to push the resolution further. In the screening session Jan 31-Feb 2, we screened 2 different samples (1 with NADPH and 1 with  $\text{SeO}_3$ ) and obtained several Krios-ready grids for each. This RAP1 proposal is to collect on these 2 different samples with the intention of seeing these small molecules bound within our protein structure. Here, I include some examples of small data collections which resulted in some nice 2-d classes and some reconstructions below  $6 \text{ \AA}$  in only a few hours of processing. I also include example atlas and high-mag images of Krios ready grids for the 2 samples.

#### **SAMPLE 1, NADPH + GRLMR**





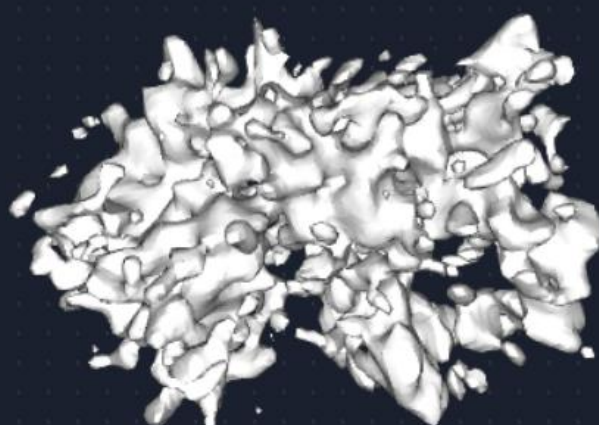
## SAMPLE 2



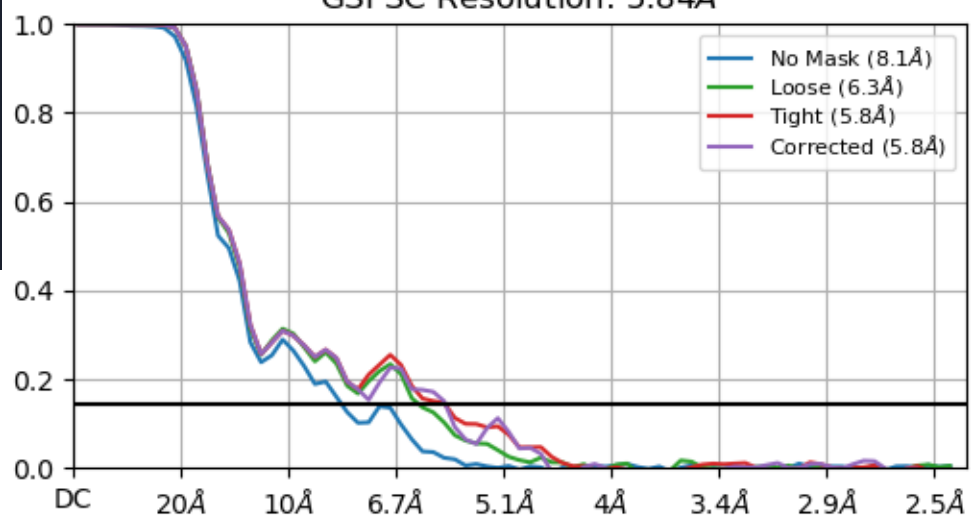


Threshold 0.59

Min: -2.17 Max: 2.71



GSFSC Resolution: 5.84Å



Representative classes from different stages, either following blob-picking or template picking.

Classes look similar for both samples.

