

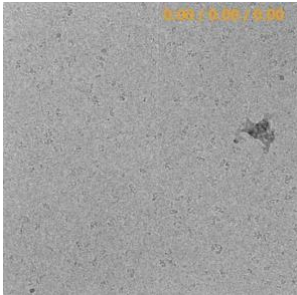
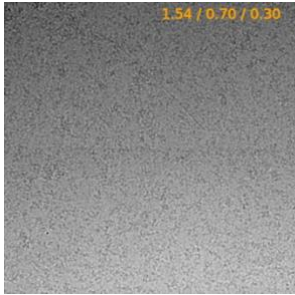
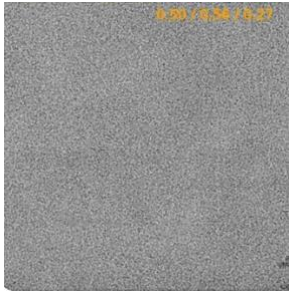
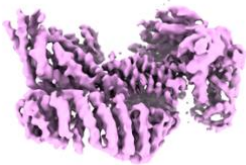
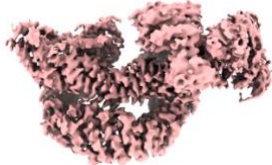
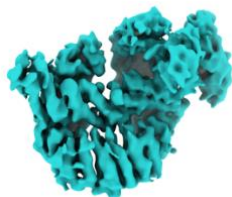




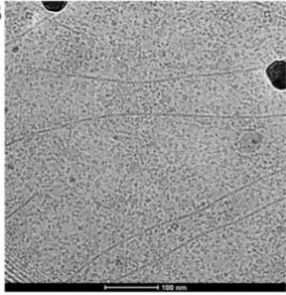
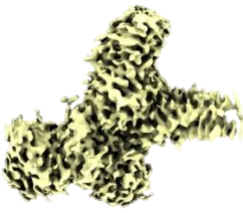
	Sample #1	Sample #2	Sample #3	Sample #4	Sample #5
Major sample prep challenge	Sample Aggregation	Sample Aggregation	Sample Aggregation	Sparse sample Sample Aggregation	Sparse sample
Additive/ Approach tried	Crosslinking (Glutaraldehyde)	Crosslinking (Glutaraldehyde)	Crosslinking (Glutaraldehyde)	Detergent Crosslinking (Glutaraldehyde) Increased concentration	Detergent Increased Concentration
Micrographs collected	3,441	9,545	1,738	5,548	11,148
Final Resolution	~4 Å	~4 Å	~6 Å	~7.5 Å	~10 Å
Micrographs					
Output Map					

Samples #1, #2, and #3 are part of **Project #1**. We have shown that the same freezing condition as described in the feasibility & data section works for these samples.

Samples #4 and #5 are part of **Project #2**. More samples of a similar nature will be prepared using the optimized conditions.

Challenge: Samples #4 and #5 have shown orientation biases (please see 2D classes on the second page).

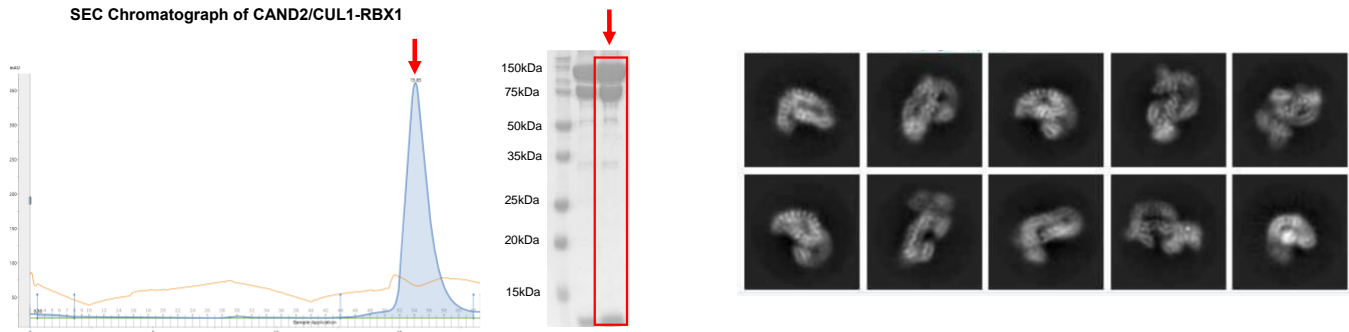
Proposed solution: Obtaining more particles.

	Sample #6 Effector A
Major sample prep challenge	Small sample size, actin polymerization
Methodology/ Approach tried	Detergent
Micrographs collected	6400
Final Resolution	~4 Å
Micrographs	
Output Map	

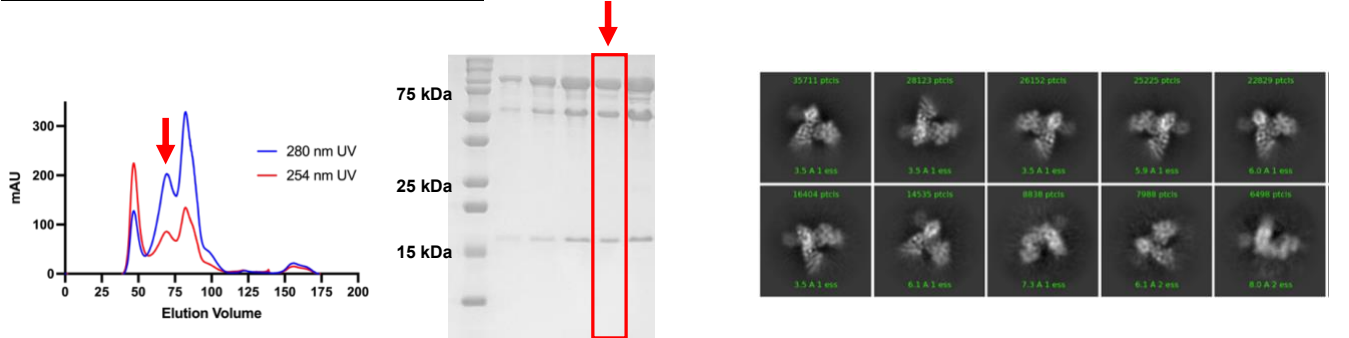
Sample #6 is part of **Project #3**.
The Effector A sample is prepared without SEC.

The purity of our samples is all determined by SDS-PAGE after size exclusion. The purity of our samples is shown below, along with a sample set of 2D classes.

Project #1: Structural studies of cullin-ring ligases exchange factors



Project #2: HPV16-E6 and E6AP



Project #3: *L. pneumophila* effectors

