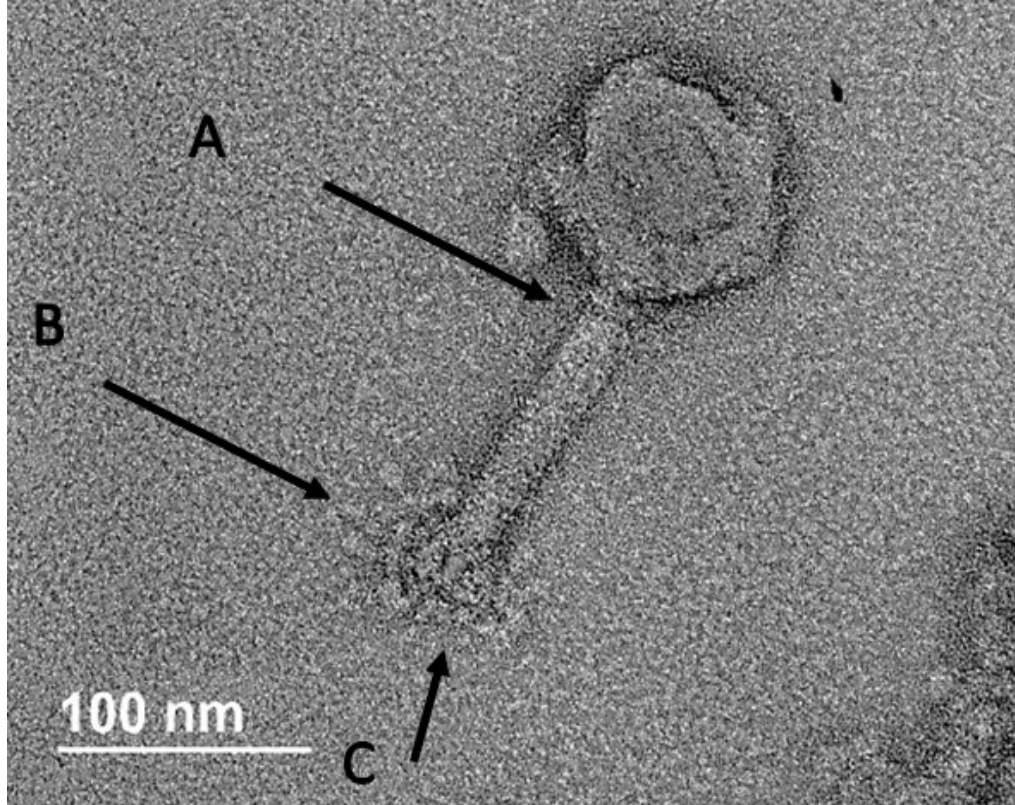
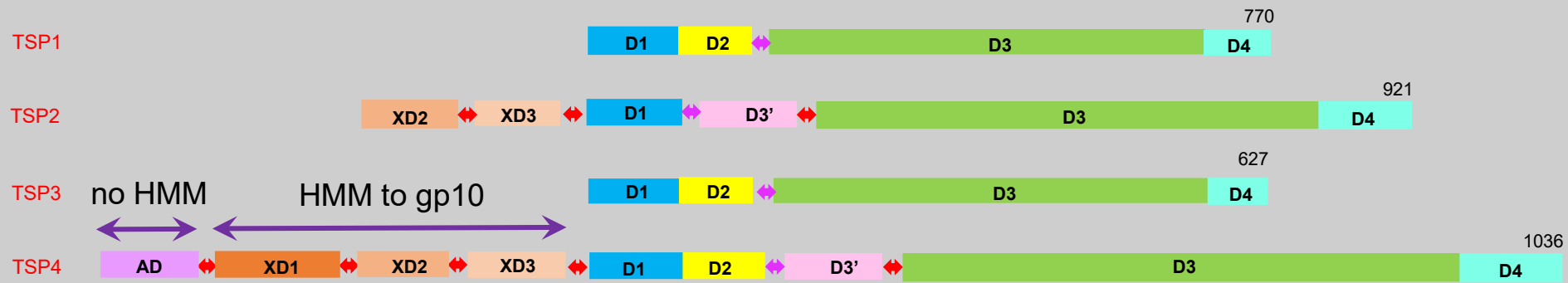


# Phage CBA120

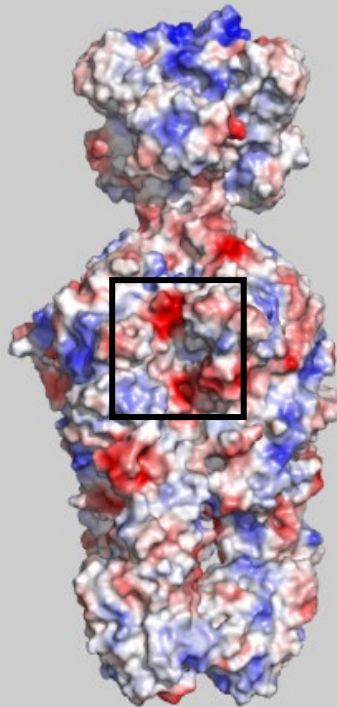


- Archetypical species of the newly created *Kuttervirus* genus in the *Ackermannviridae* family.
- Displays multiple tailspike proteins – infects multiple *E. coli* and *Salmonella* species.
- Goal: Understanding the evolution and diversity of glycosidase mechanisms, assembly of the infection apparatus, and harnessing the knowledge for combatting antibiotic resistance challenges.

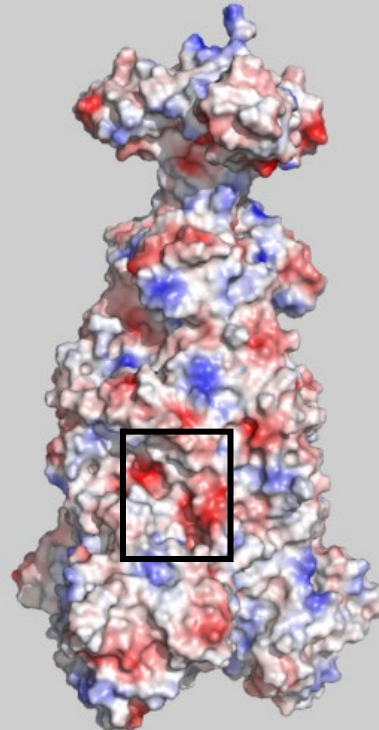
# Phage CBA120 TSPs domains



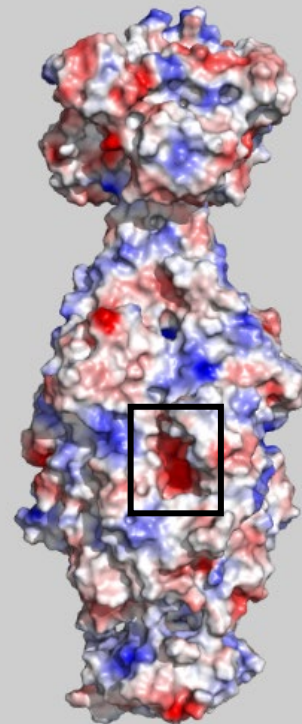
**TSP1**



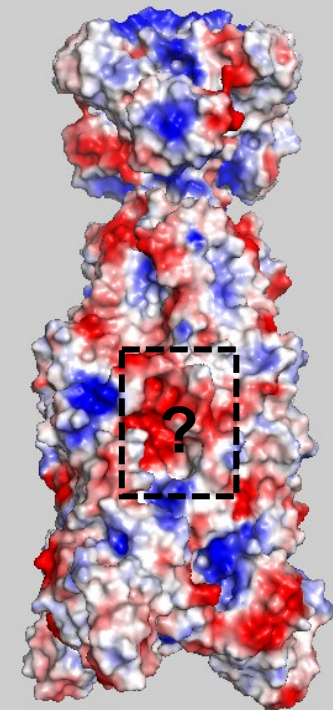
**TSP2**



**TSP3**



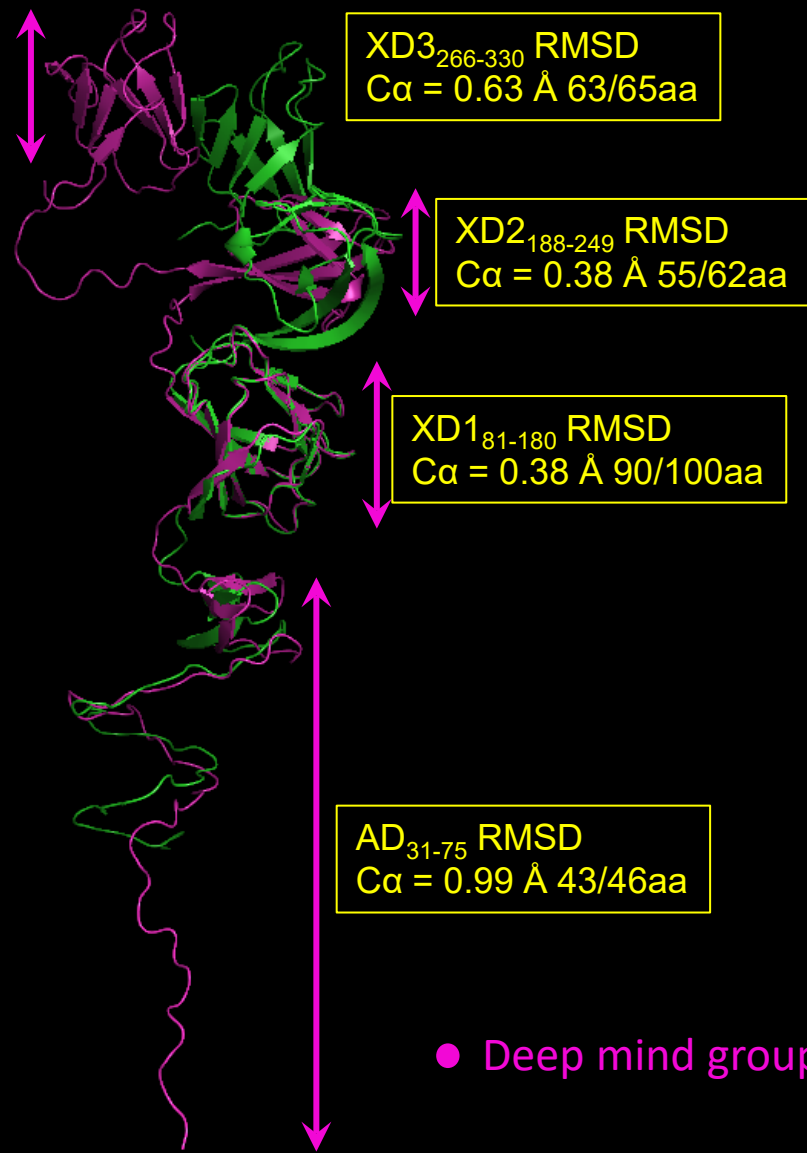
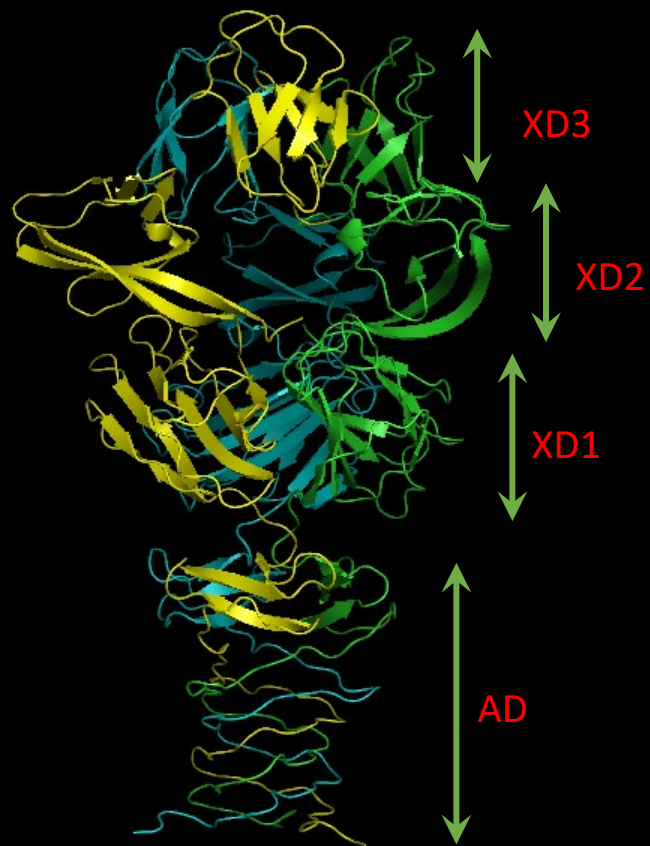
**TSP4**



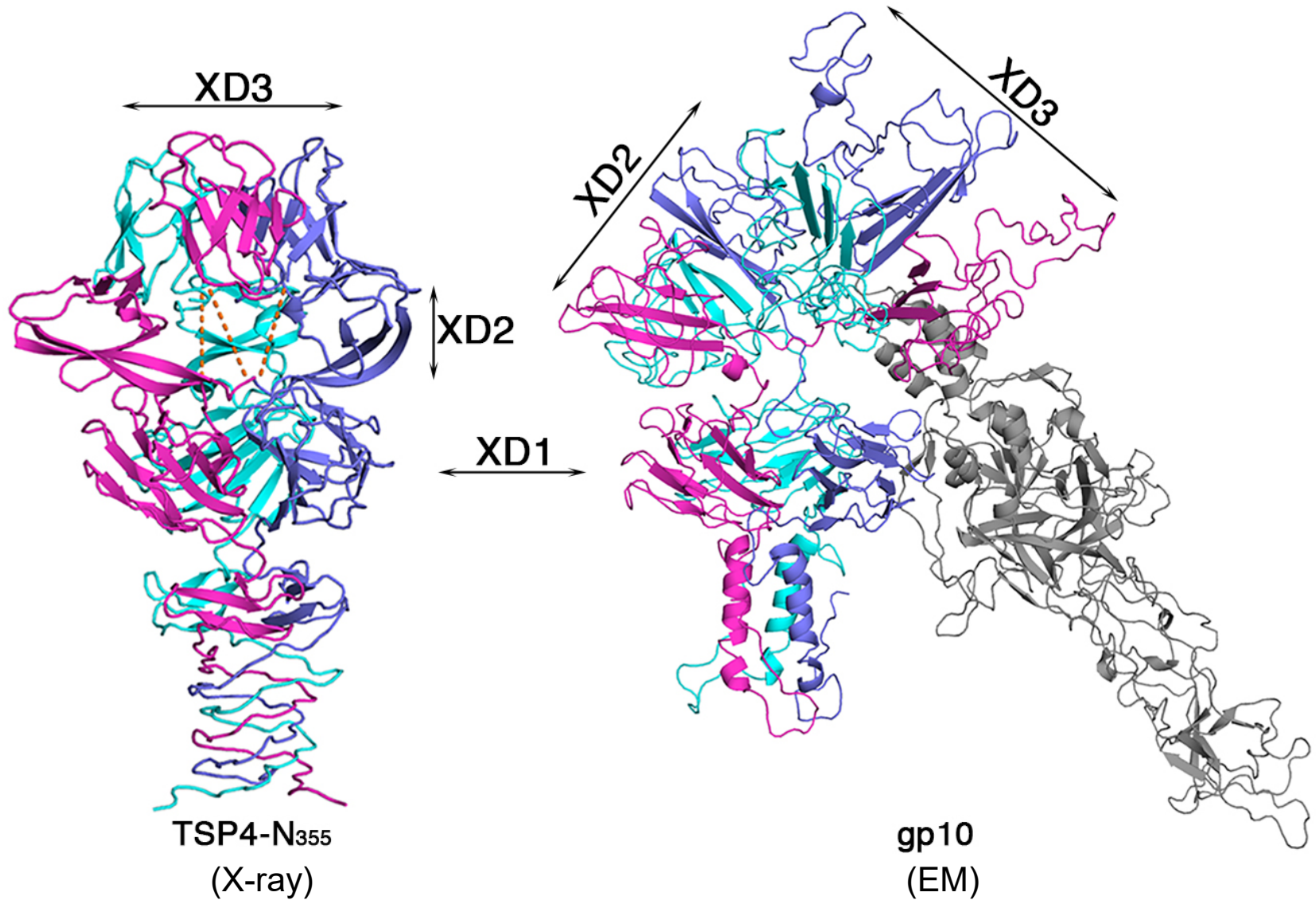
# Structure determination

- Structure with uninterpretable XD3 determined by Se MAD methods and Molecular Replacement using diffraction data from another crystal form revealed the entire polypeptide chain
- Refinement at 2.6 Å:  $R/R_{\text{free}} = 0.206/0.229$

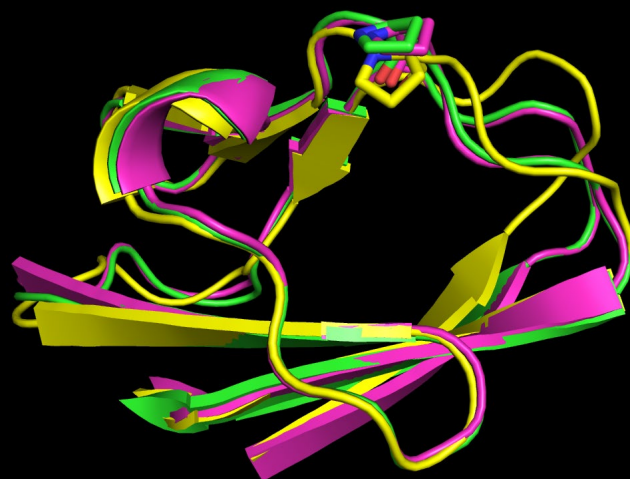
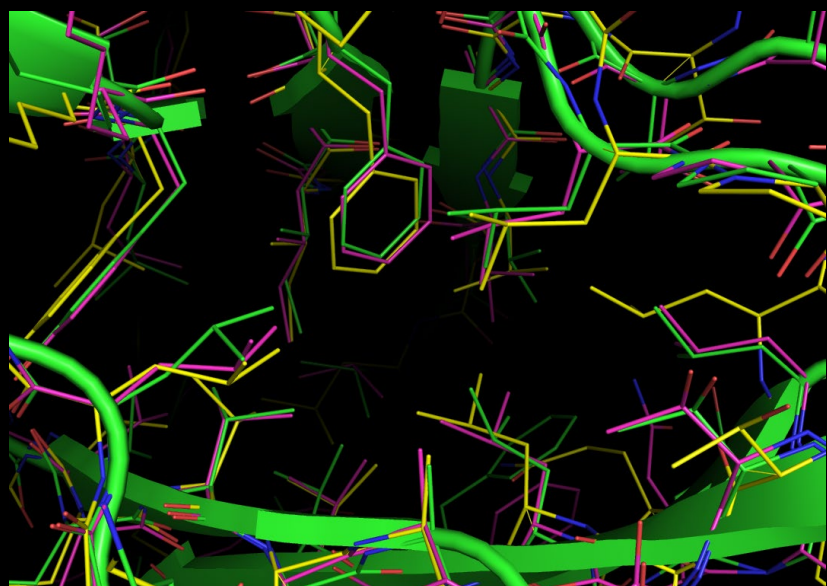
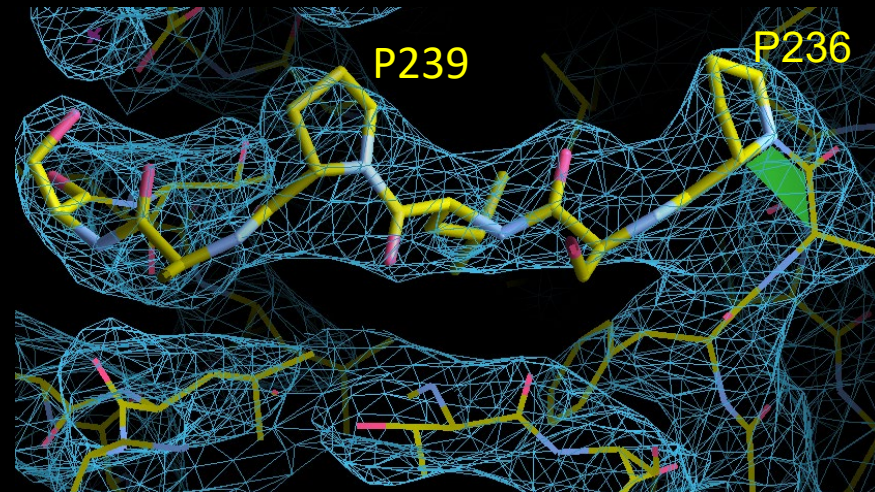
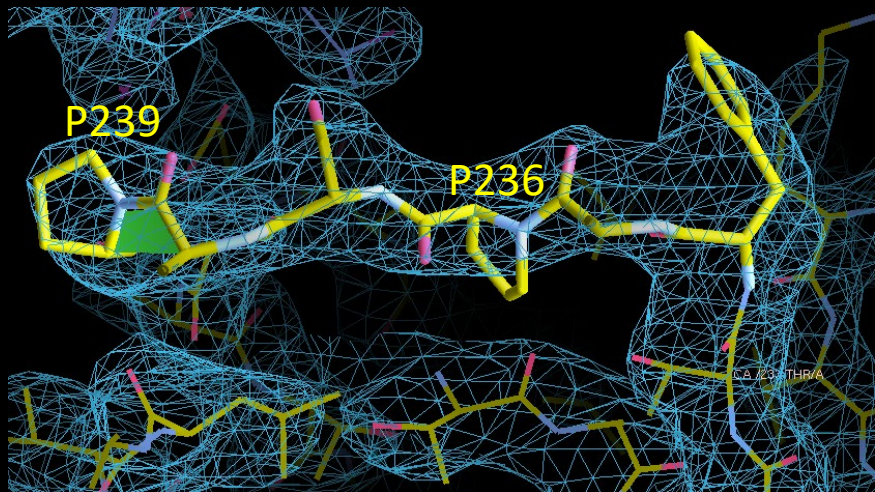
# TSP4-N



# TSP4-N vs. phage T4 gp10

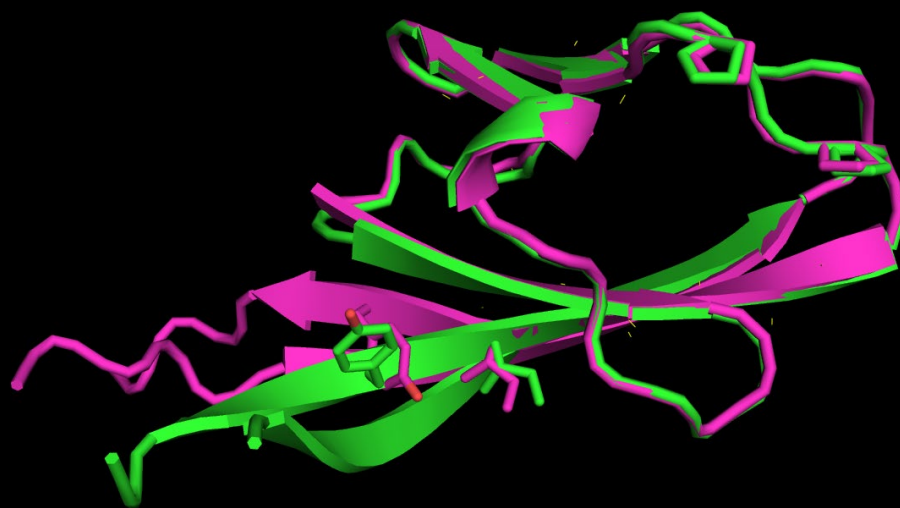
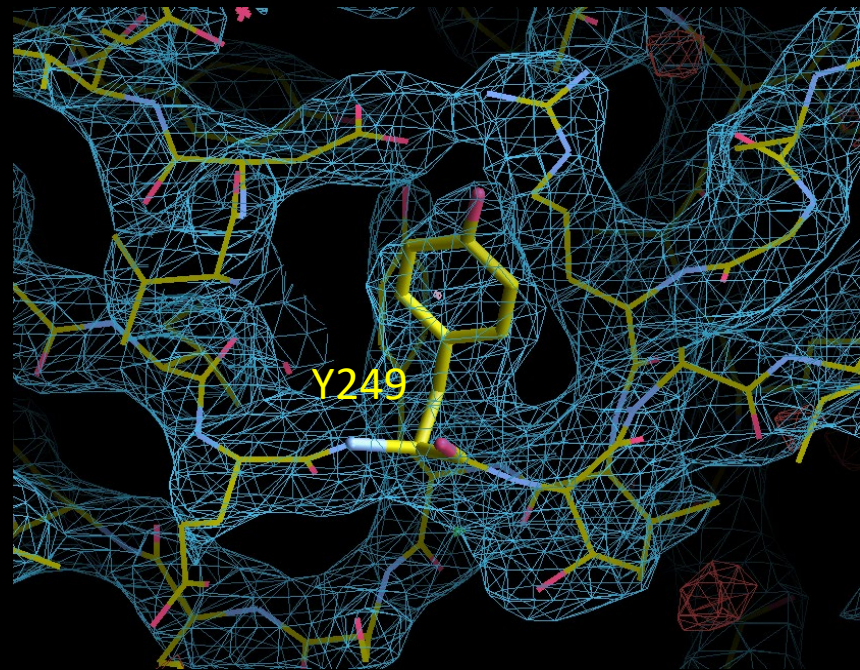
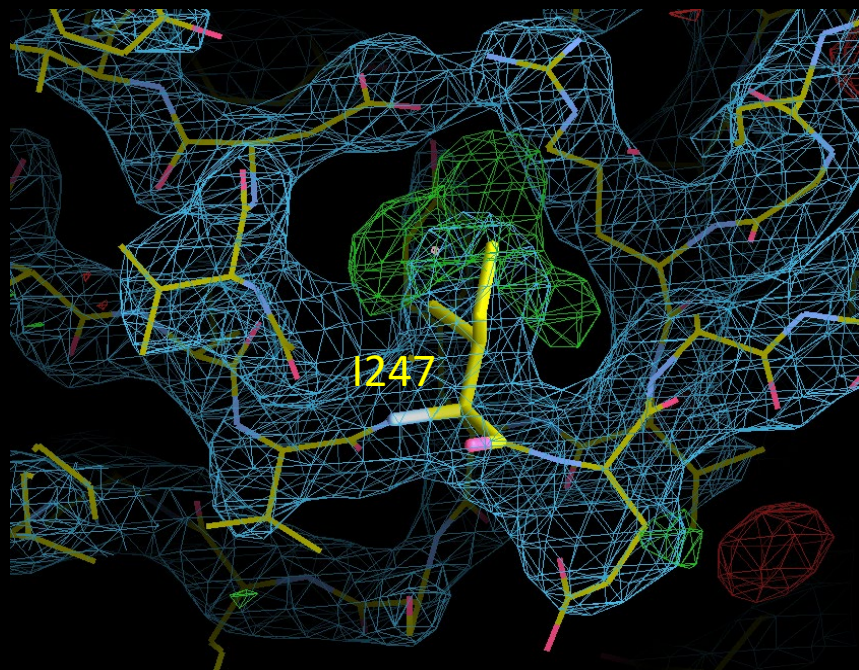


# Group 427 model helped correct local XD2 tracing error



- Experimental
- Deep mind  
RMSD = 0.38 Å
- Zhang TBM  
RMSD = 1.05 Å

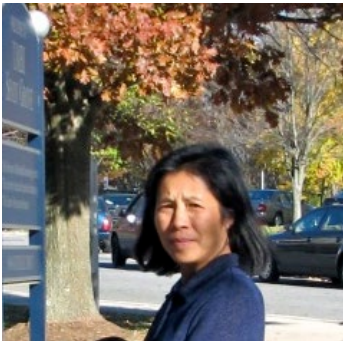
# Group 427 model helped correct local tracing error



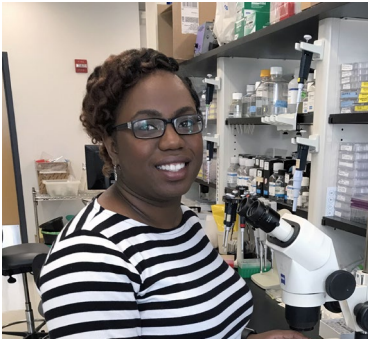
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- **Sara Linden**