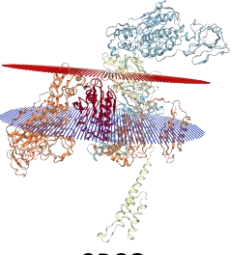
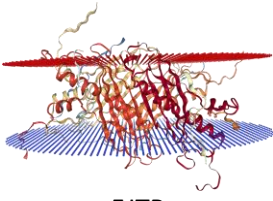
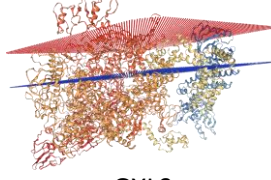
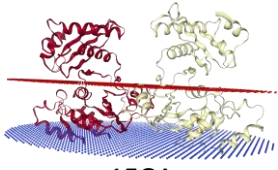
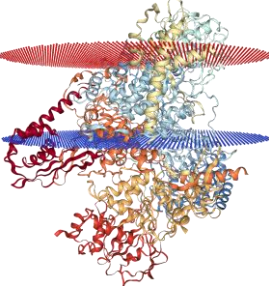
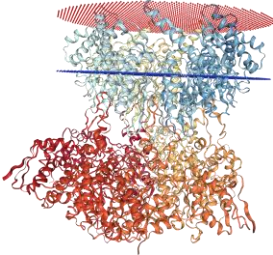
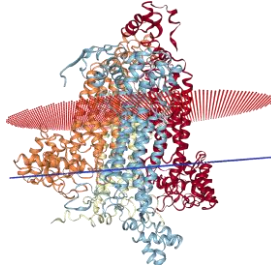
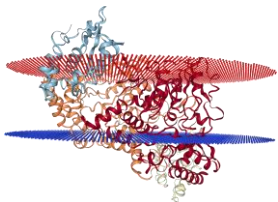
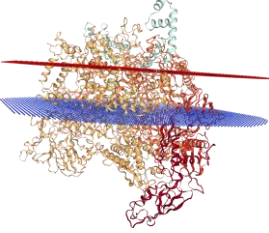
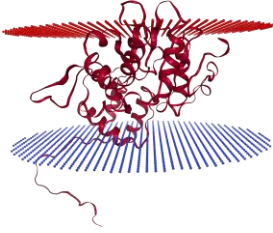
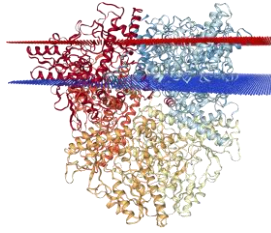
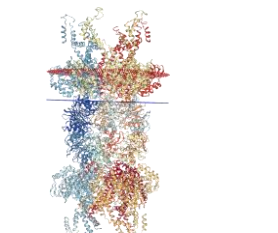
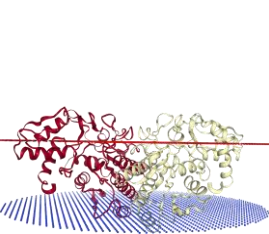
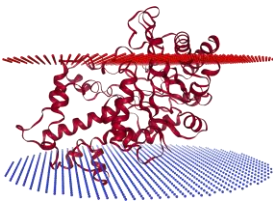
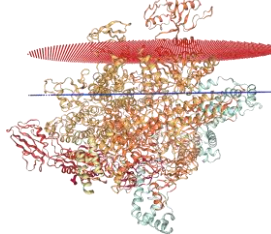
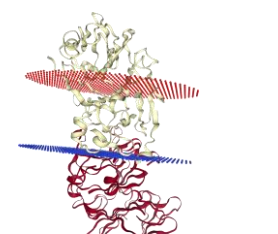
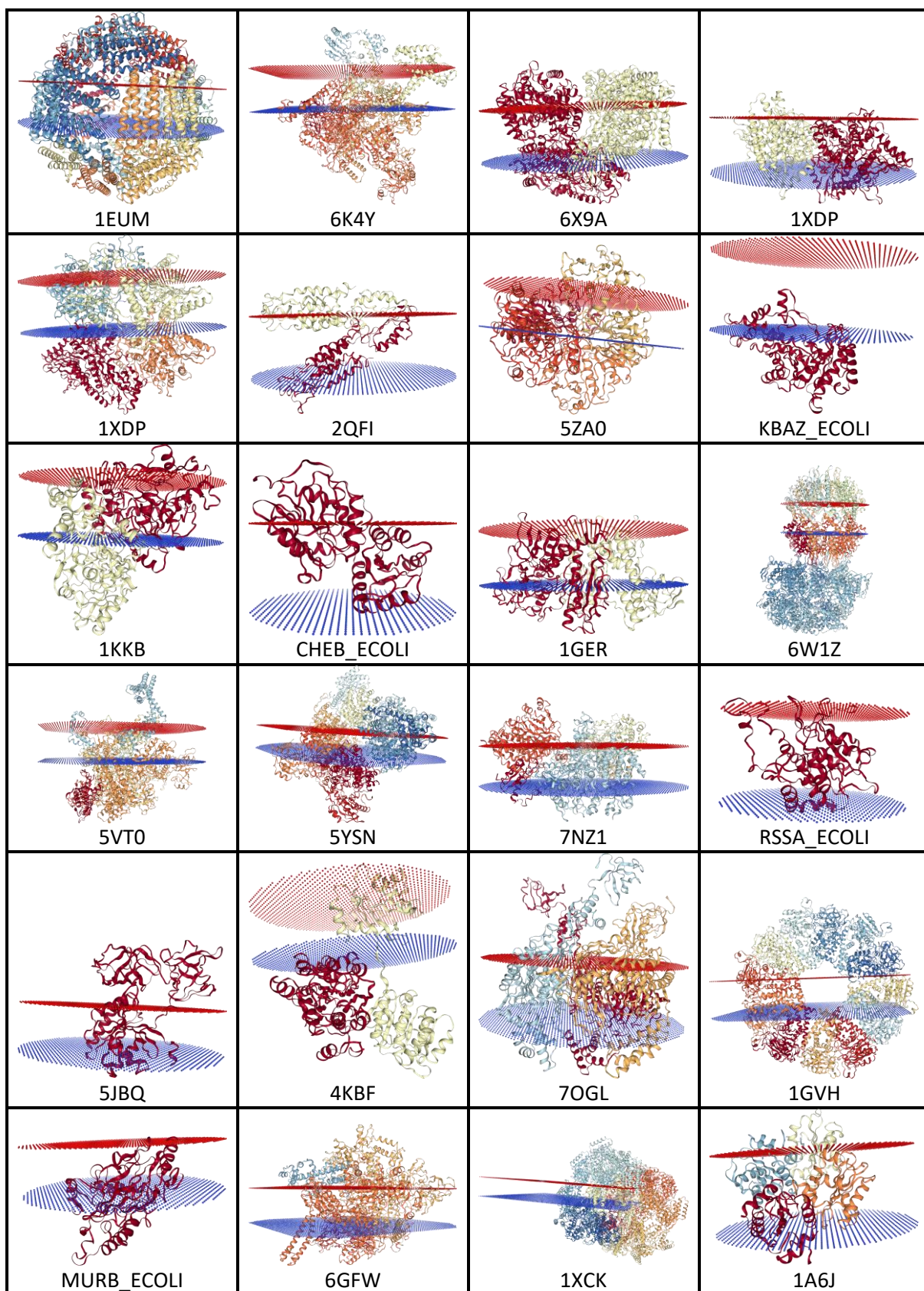


## Manual Orientation of Membrane Proteins

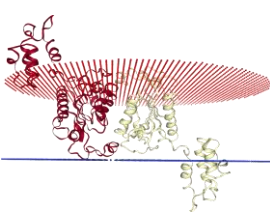
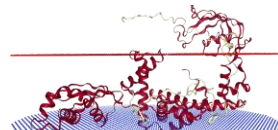
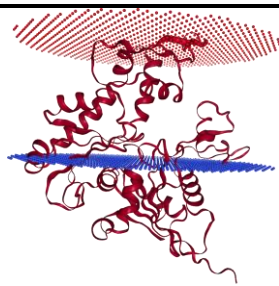
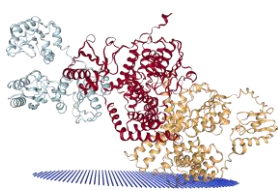
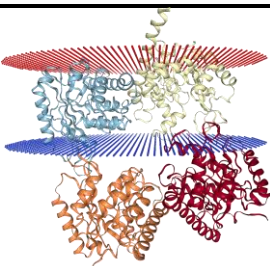
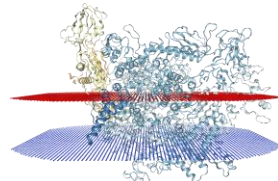
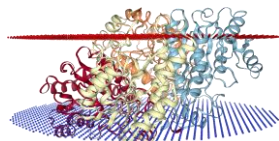
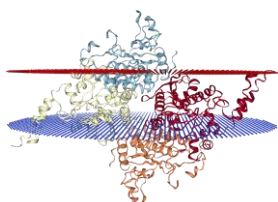
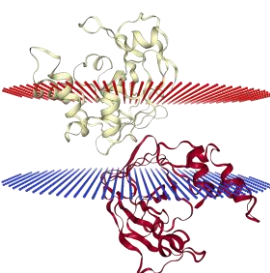
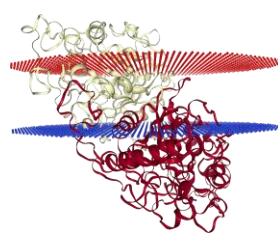
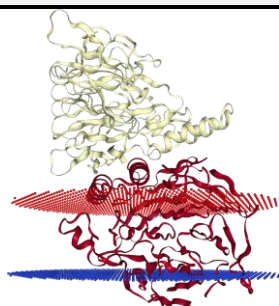
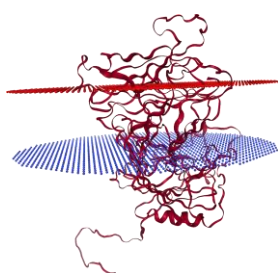
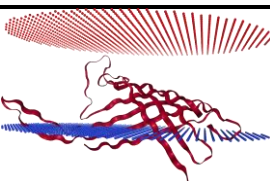
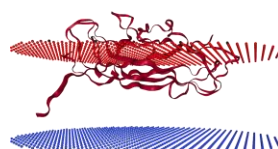
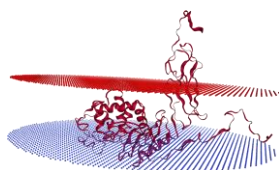
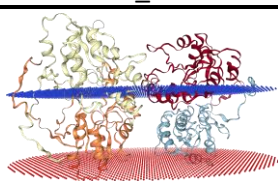
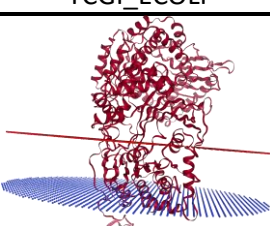
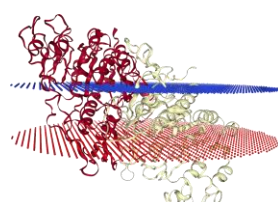
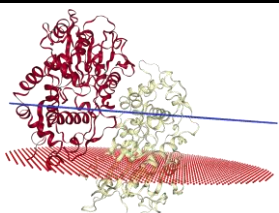
The following proteins were identified as potential membrane proteins by information provided in EcoCyc, iML1515, or Gene Ontology terms for the genes mapped to their subunits. Membrane planes that passed QCQA were identified from at least 1 of 3 methods (OPM/UniProt/TMHMM). These proteins could not be oriented (e.g. there was no topological information provided from UniProt). Manual inspection of the membrane calculations shows these to be non-membrane proteins. Literature search of the genes mapped to these structures places them in the **Cytoplasm, Periplasm, or Extracellular Matrix**.

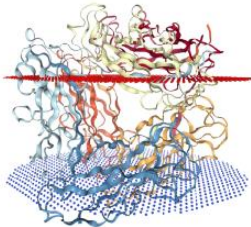
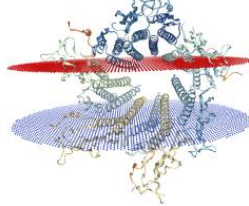

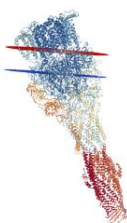
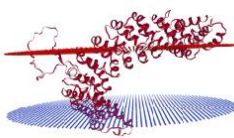

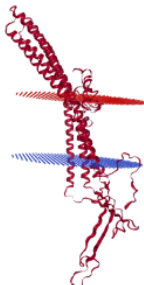
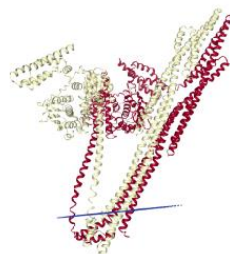
### Non-Membrane Structures

Cytoplasm	Category : <b>Cytoplasmic Proteins</b>		
Cytoplasm	Membrane planes are incorrect		
			
3PCO	5JTP	GXL9	1EGA
			
7Z19	6POD	1JSW	4LW4
			
6JBQ	CHER_ECOLI	2DGM	1G4B
			
1BSV	GATZ_ECOLI	5IPL	1XRU





			
2FQ1	2MLX	MREB_ECOLI	CPLX-158_AlphaMulti
			
1AG1	6ALF	7UMW	2F9Y
Periplasm	Category : Periplasmic Proteins		
Periplasm			
Membrane planes are incorrect			
			
1S7D	2Y4F	2UVK	OPPG_ECOLI
			
YCGI_ECOLI	6ERJ	DACD_ECOLI	1RMT
			
PTR_A_ECOLI	3BDH	3ZHC	
Extracellular Space	Category : Extracellular Proteins		
Extracellular Space			
Membrane planes are incorrect			

	
6y7z	7cgo
Bad Membrane Calculation	Category : <b>Membrane Proteins</b>
Poor Calculation or Structure	
	
5nik	5v5s
	
YJGL_ECOLI	2wcd
	
MDTQ_ECOLI	TORS-CPLX_AlphaMulti