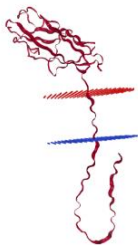
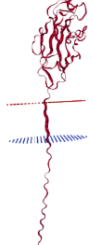
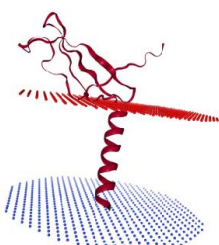
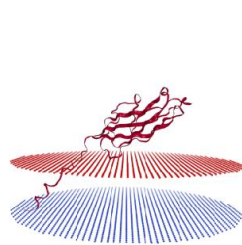
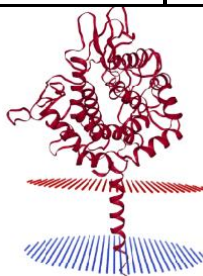
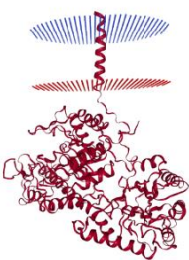
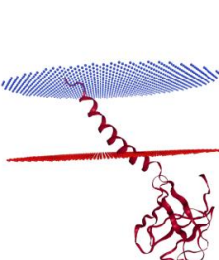
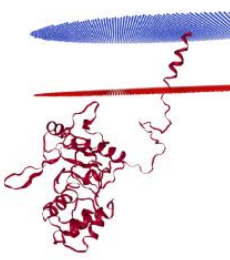
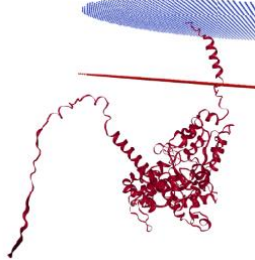
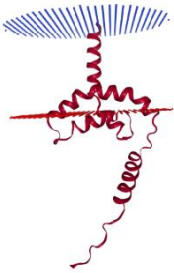
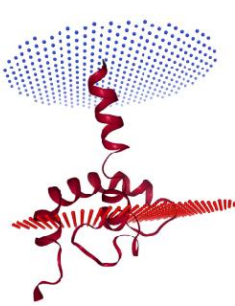
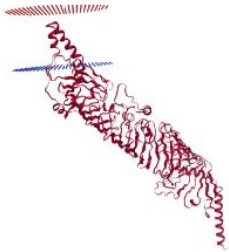
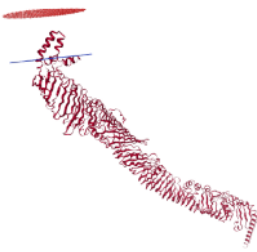
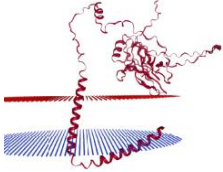

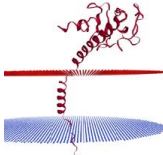
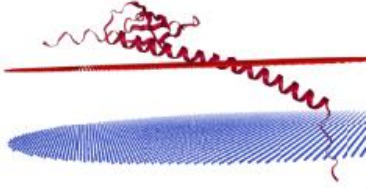
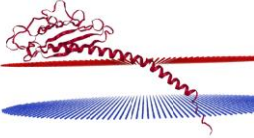
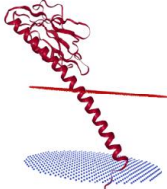
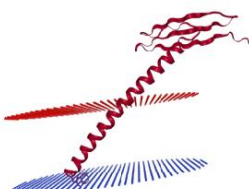
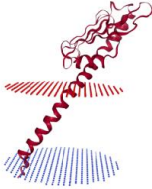


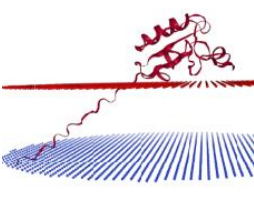

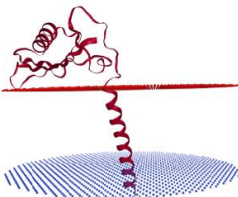
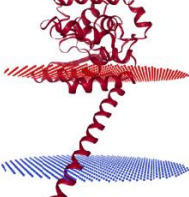
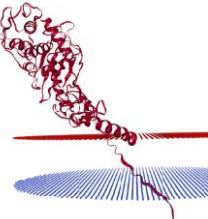
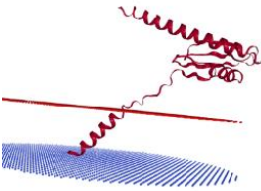
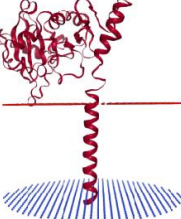

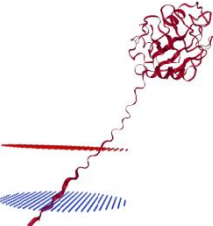
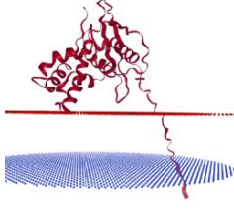
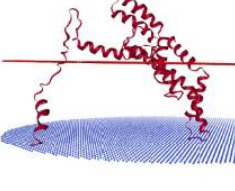
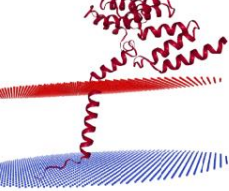
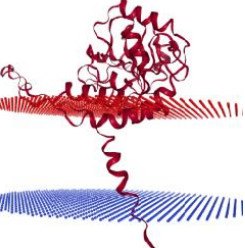

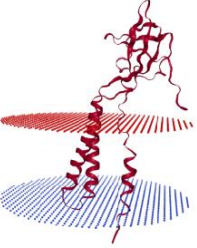

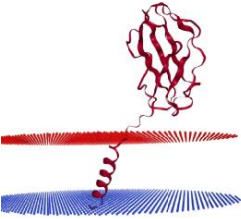
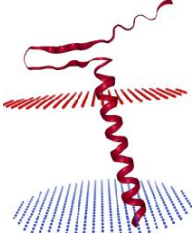
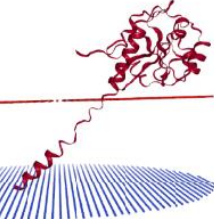
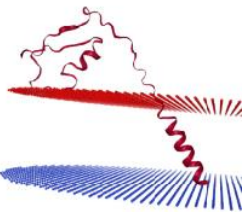
## Manual Orientation of Membrane Proteins

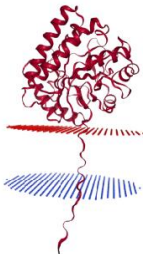
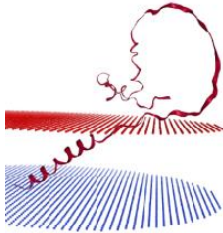
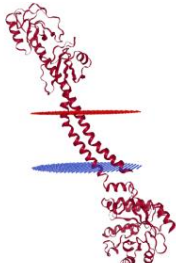
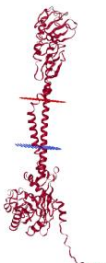
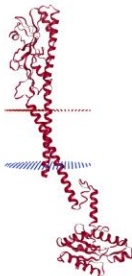
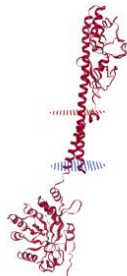
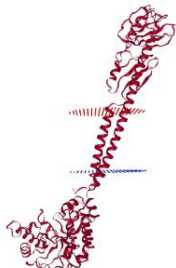
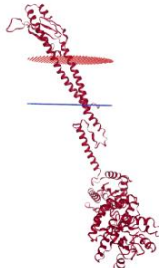
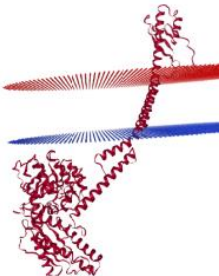
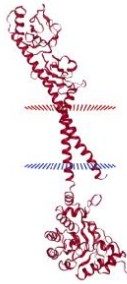
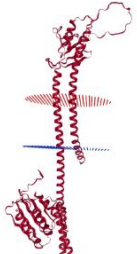
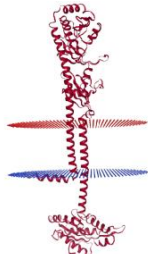

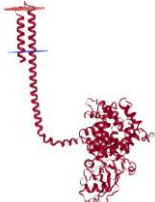
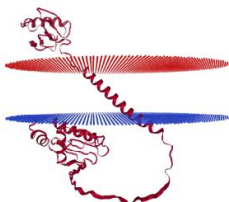
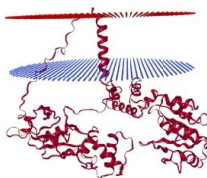
The following proteins were identified as potential membrane proteins by information provided in EcoCyc, iML1515, or Gene Ontology terms for the genes mapped to their subunits. Membrane planes that passed QCQA were identified from at least 1 of 3 methods (OPM/UniProt/TMHMM). These proteins could not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

### Lipoprotein Membrane Structures

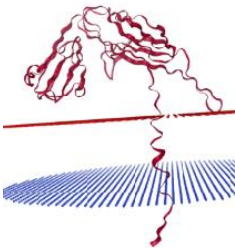
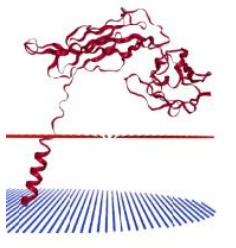
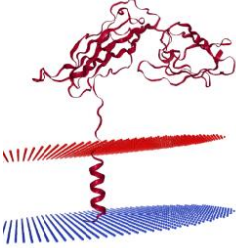
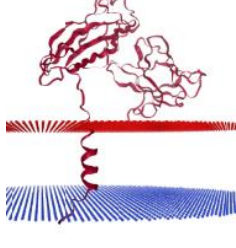
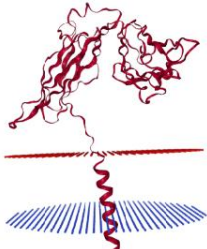
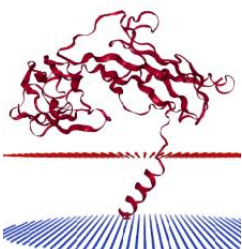
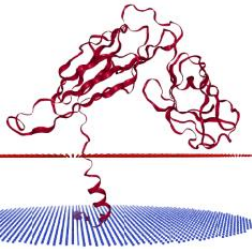
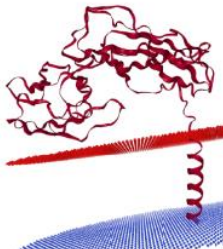
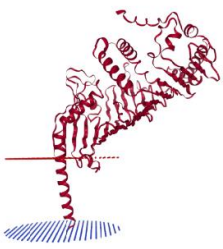
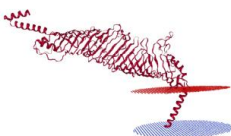
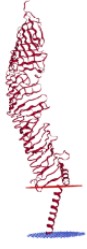

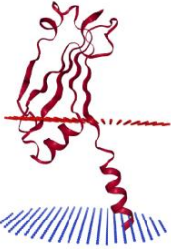

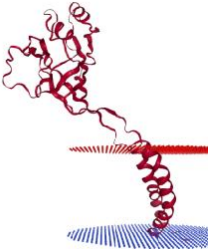
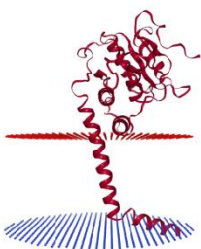
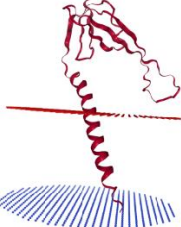
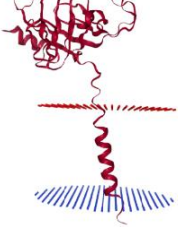

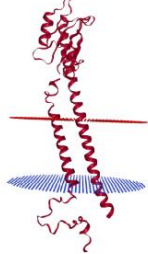
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N – Periplasmic (OM)			
Topological Information Available			
			
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AF-P37651			
N – Extracellular (OM)		Category : Outer Membrane Lipoprotein	
O – Periplasmic (OM)			
Topological Information Available			
			
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No information available			

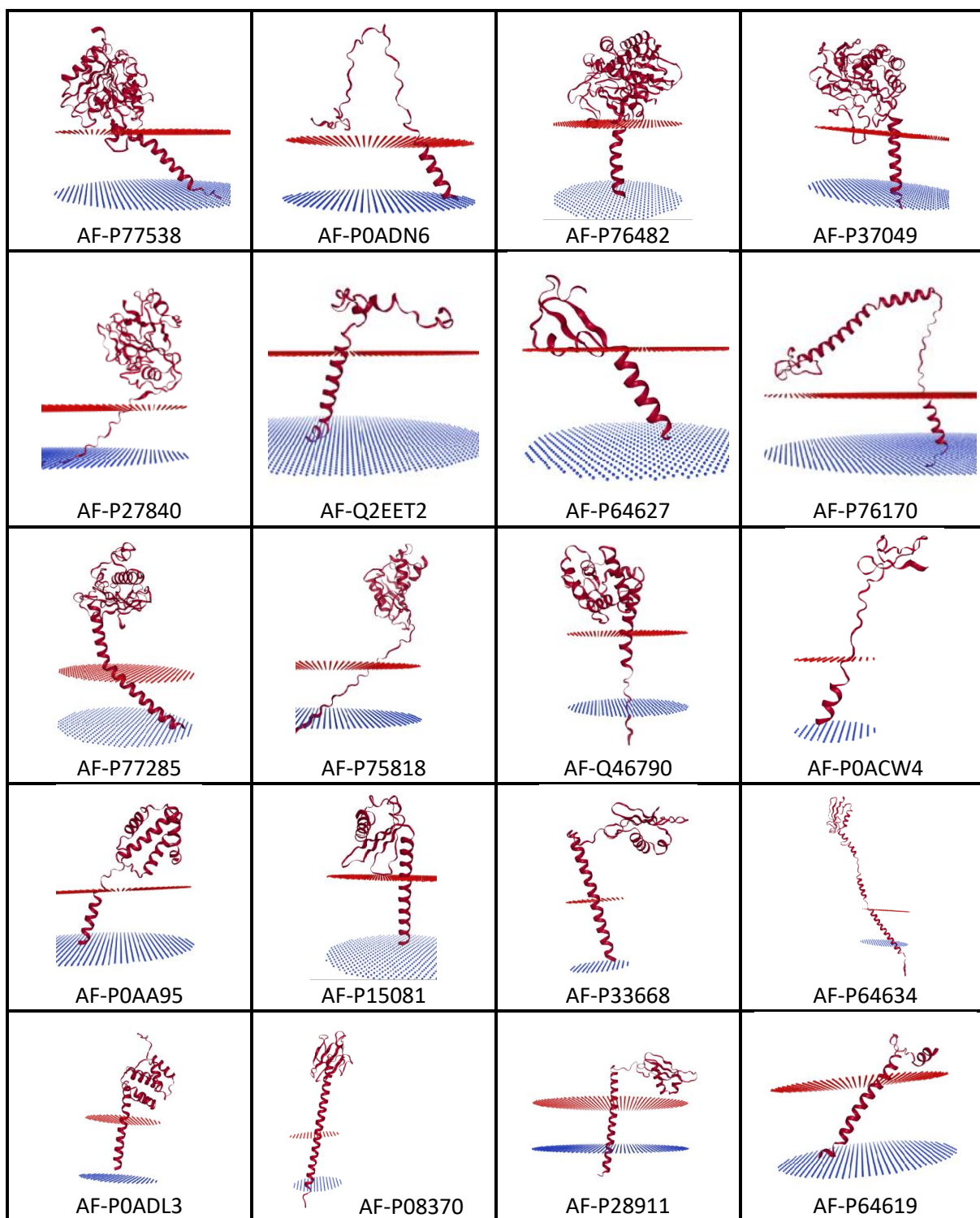
			
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Assembly Protein			
			
AF-P37645	AF-P46474		
<b>O – Periplasmic (IM)</b>	Category : <b>Inner Membrane Lipoprotein</b>		
<b>N – Cytoplasmic (IM)</b>			
Secretion			
			
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AF-P41442	AF-P45760		
Pilin			
			
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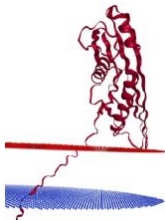


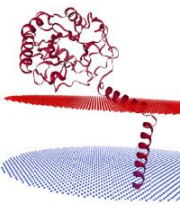
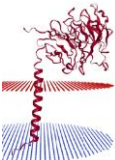
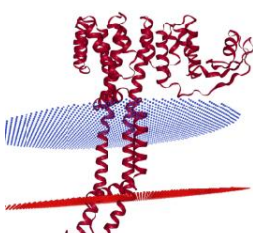

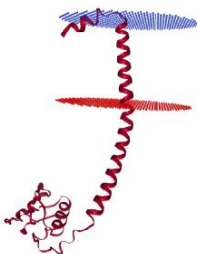
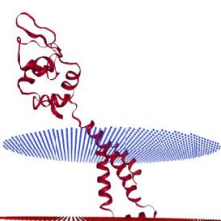
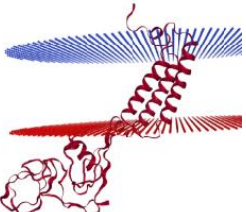
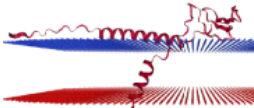
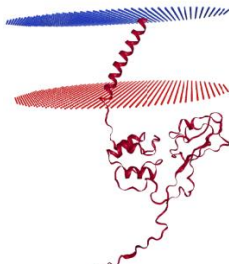
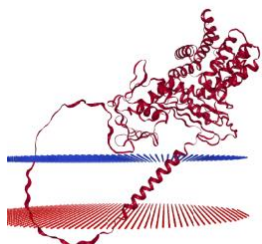
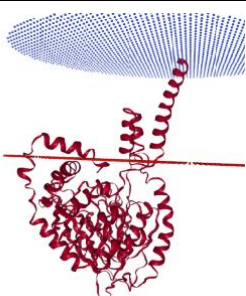
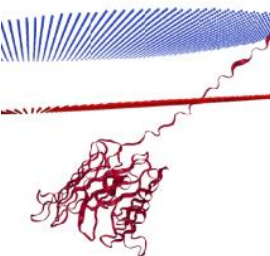
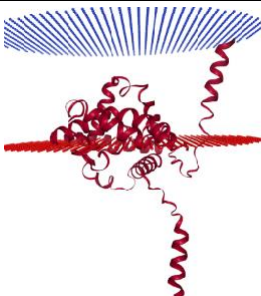
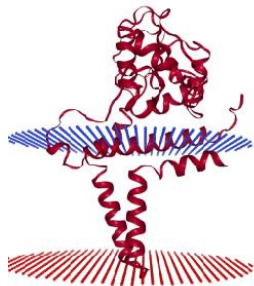
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AF-P0AFL3	AF-P0ADV7	AF-P0AC05	AF-P32712
			
AF-P37056	AF-P65292	AF-P65290	AF-P77619
			
AF-P0AA57	AF-P77091	AF-P64548	AF-P31121

 <p>AF-P37325</p>	 <p>AF-A5A628</p>		
EAL Domain in cytoplasm			
 <p>AF-P77473</p>	 <p>AF-P76261</p>	 <p>AF-P75801</p>	 <p>AF-P75995</p>
 <p>AF-P76446</p>	 <p>AF-P37649</p>	 <p>AF-P13518</p>	 <p>AF-P32701</p>
 <p>AF-P14377</p>	 <p>AF-P76330</p>	 <p>AF-P76237</p>	
Cytoplasmic domain			
 <p>AF-P0A6A0</p>	 <p>AF-Q46942</p>	 <p>AF-P45756</p>	
Fimbrial chaperone			



 AF-P77263	 AF-P77249	 AF-P42914	 AF-P77616
 AF-P77599	 AF-P33128	 AF-P33342	 AF-P40876
Assembly protein			
 AF-P77804	 AF-P28249	 AF-P31433	 AF-P52645
No Information			
 AF-P77330	 AF-P33669	 AF-P0ADM6	 AF-P42598
 AF-P37615	 AF-P75737	 AF-P33344	 AF-P0AGC7



			
AF-P0ADA5	AF-P0AB26	AF-P65294	AF-P76421
			
AF-P39382			
<b>N – Periplasmic (IM)</b>	Category : Inner Membrane Lipoprotein		
<b>O – Cytoplasmic (IM)</b>			
No Information			
			
AF-P36646	AF-P0AB35	AF-P45751	AF-P38392
Topological Information Available			
			
AF-P75839	AF-P22586	AF-P77223	AF-P23890
			
AF-P0A6H8	AF-P67553	AF-P76506	AF-P0AB01

