plasma membrane are made up of hydrophobic amino acids. It is a test predicatably telling you why these proteins are able to enter and sit comfortably in a hydrophobic environment.

The interesting thing about aqua porin it is that it can open up and close. When it opens up water moves through. The important thing is that when the channel opens up it is made up of two alpha helices in which outside of these helices it is hydrophobic and is able to sit comfortably in the membrane. So this is challenging. The aqua porin can sit comfortably and when necessary it can allow water molecules to pass through. The arrangement of the amino acid is so intricate and critical.

The Beta Barrel has multiple strands of helicies mashed together. This one you have eight bound together the result of this beta barrel is that it allows bigger molecules to go through. So that when you have glucose trying to pass through you have to allow this specific passage. Not only this but water, so the channel must be pretty big, so these channels are much bigger.

You have integral membrane proteins that on the outside contain sugar. These kind of membrane proteins are usually found in the epithelial cells of the gut. Because gut has a lot of a very hostile environment so with a lot of glycosylation it protect the cells.