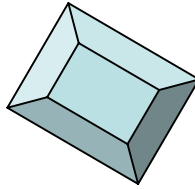
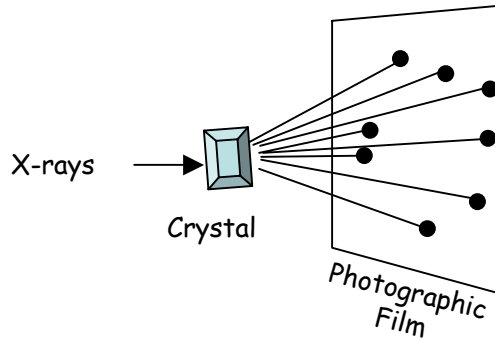


To design better drugs to treat heart disease we need to know what the receptors of the heart look like.

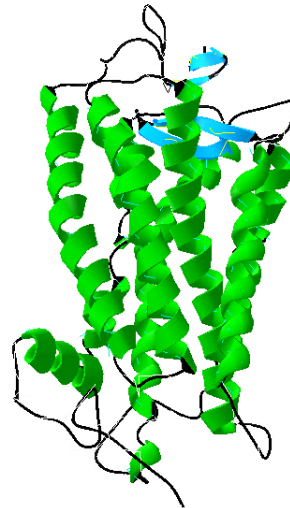
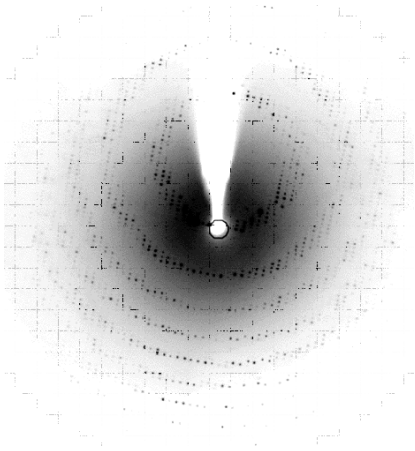
One way we do this is **X-ray Crystallography**



X-ray Crystallography starts with growing crystals of the receptor
You can try your hand at growing crystals at home (see instruction sheet)



Next a beam of X-rays are passed through the crystal and the shadow made by the atoms of the receptor are collected



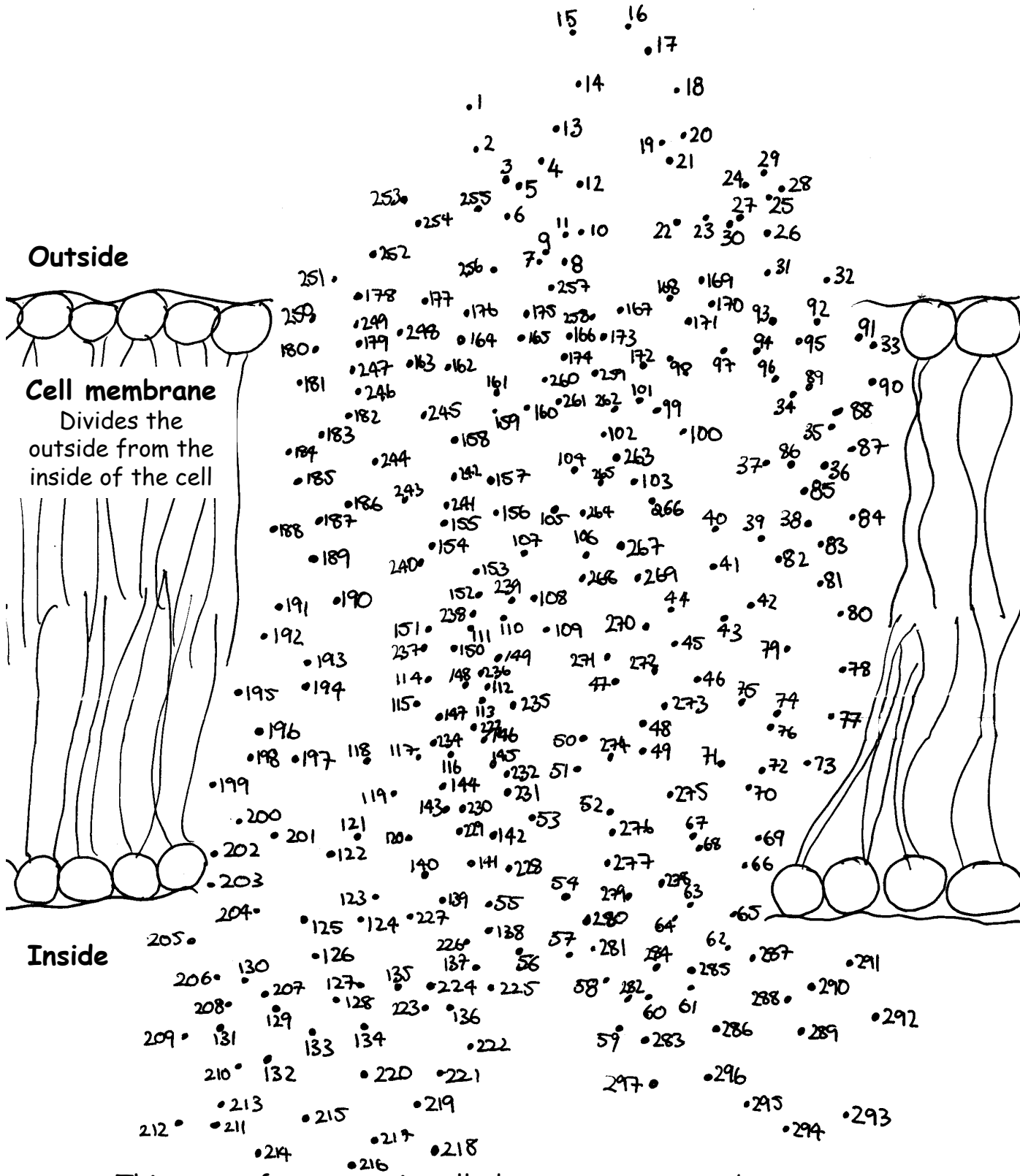
T. Okada1 Biochem. Soc. Trans.. (2004) 32, (738–741)

From the spots each of the parts of the receptor can be determined
They are then joined together to give the shape of the receptor

Can you join the dots to work out the shape of the receptor on the next page?



Join the dots to show the shape of the receptor



This type of receptor is called a seven transmembrane receptor
can you work out why?

Hint: change the colour of you pen when you get to 64, 93, 140, 179, 224 & 259

