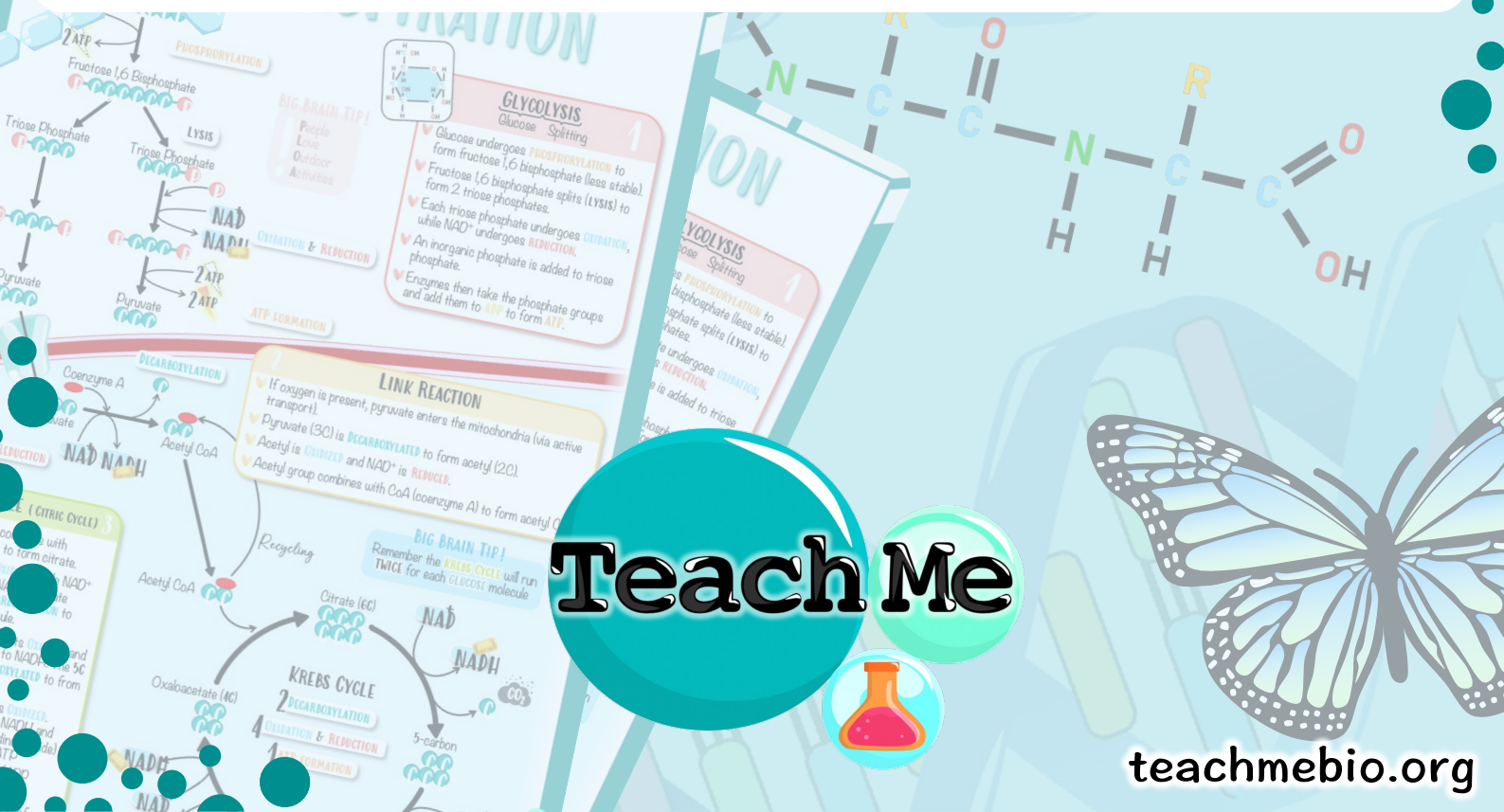


TeachMe

STUDY NOTES

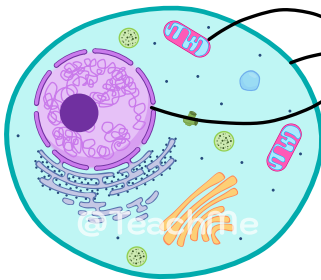
CHAPTER 4 – CELL MEMBRANES & TRANSPORT MEMBRANE STRUCTURE



Teach Me

MEMBRANE STRUCTURE

The cell membrane is a dynamic, **selectively permeable** structure found surrounding the cell and many organelles within it.



Membrane

The cell membrane forms the boundary between the **intracellular** and **extracellular** environments, controlling what enters and leaves.

In addition to the outer cell membrane, **internal membranes** surround organelles such as the **endoplasmic reticulum**, **Golgi apparatus**. Some organelles, like the **nucleus**, are enclosed by a **double membrane** (nuclear envelope), consisting of two phospholipid bilayers.

Big Brain Tip!

Cell membrane Biological membrane
Phospholipid bilayer Plasma membrane
Cell surface membrane

You may encounter various names for the cell membrane – they all mean the same thing, you can use them interchangeably!

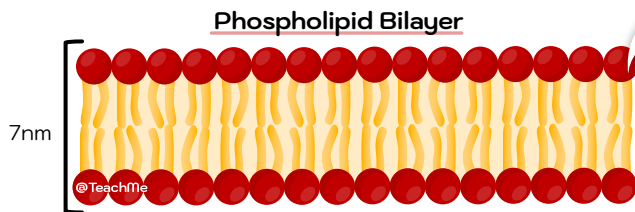
NOTE!



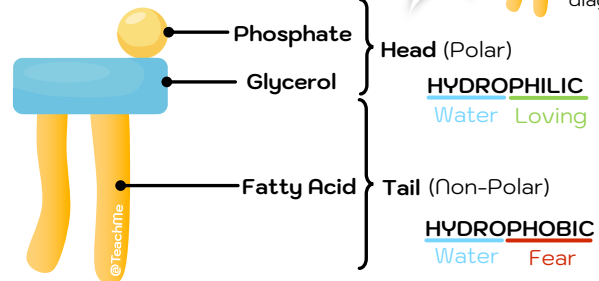
We simplify the head as a red circle in the diagrams

Cell membrane basic structure

The cell membrane is made up of **phospholipids**, which form the basic structure known as the **phospholipid bilayer**.



Phospholipid



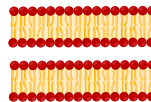
This bilayer consists of **two layers** of phospholipids arranged with their hydrophilic heads facing outward and their hydrophobic tails facing inward.

Common Confusion!



Two layers of phospholipids.

Structure of cell membrane, Golgi membrane, endoplasmic reticulum membrane.

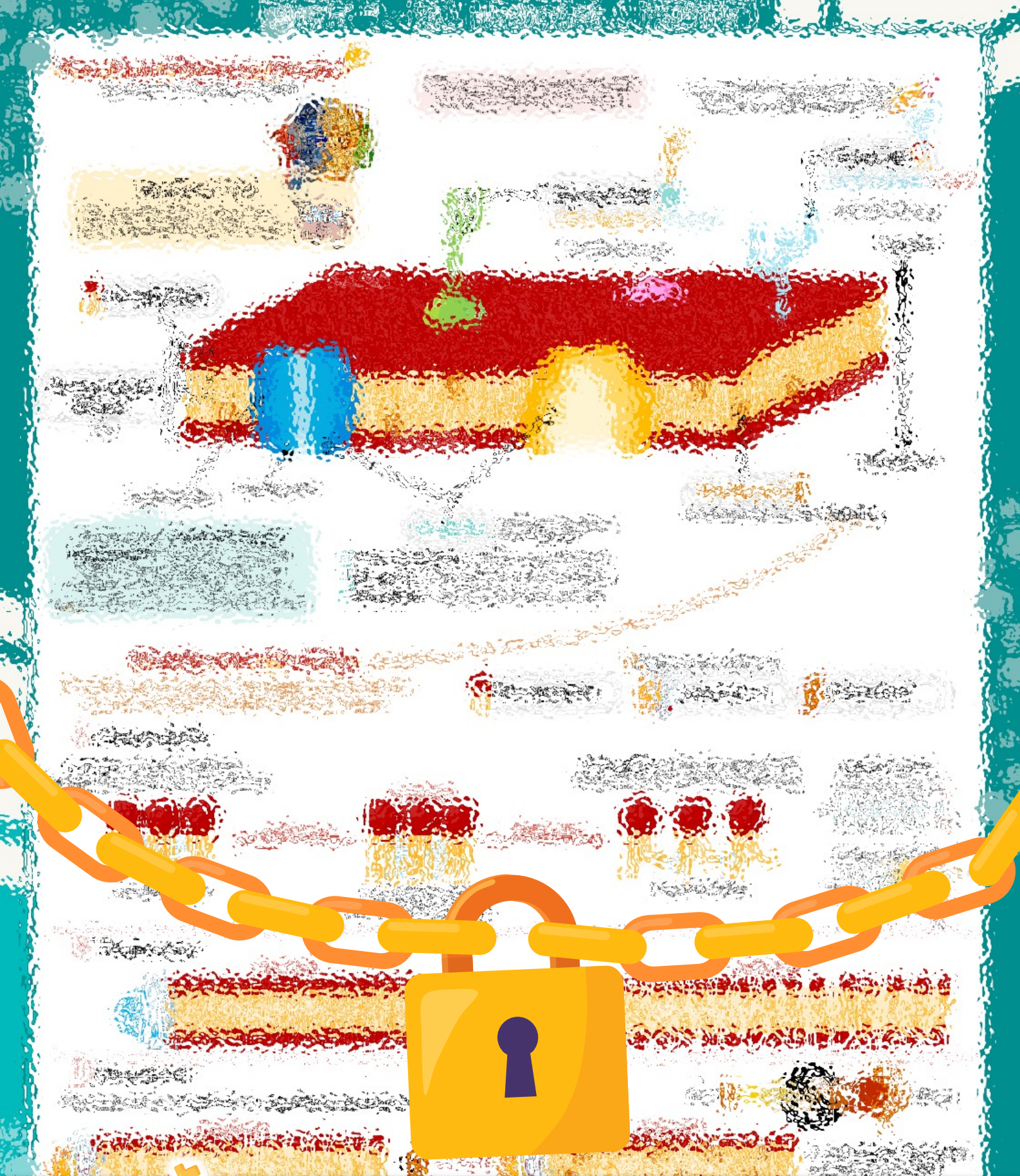


Double membrane – Nuclear envelope

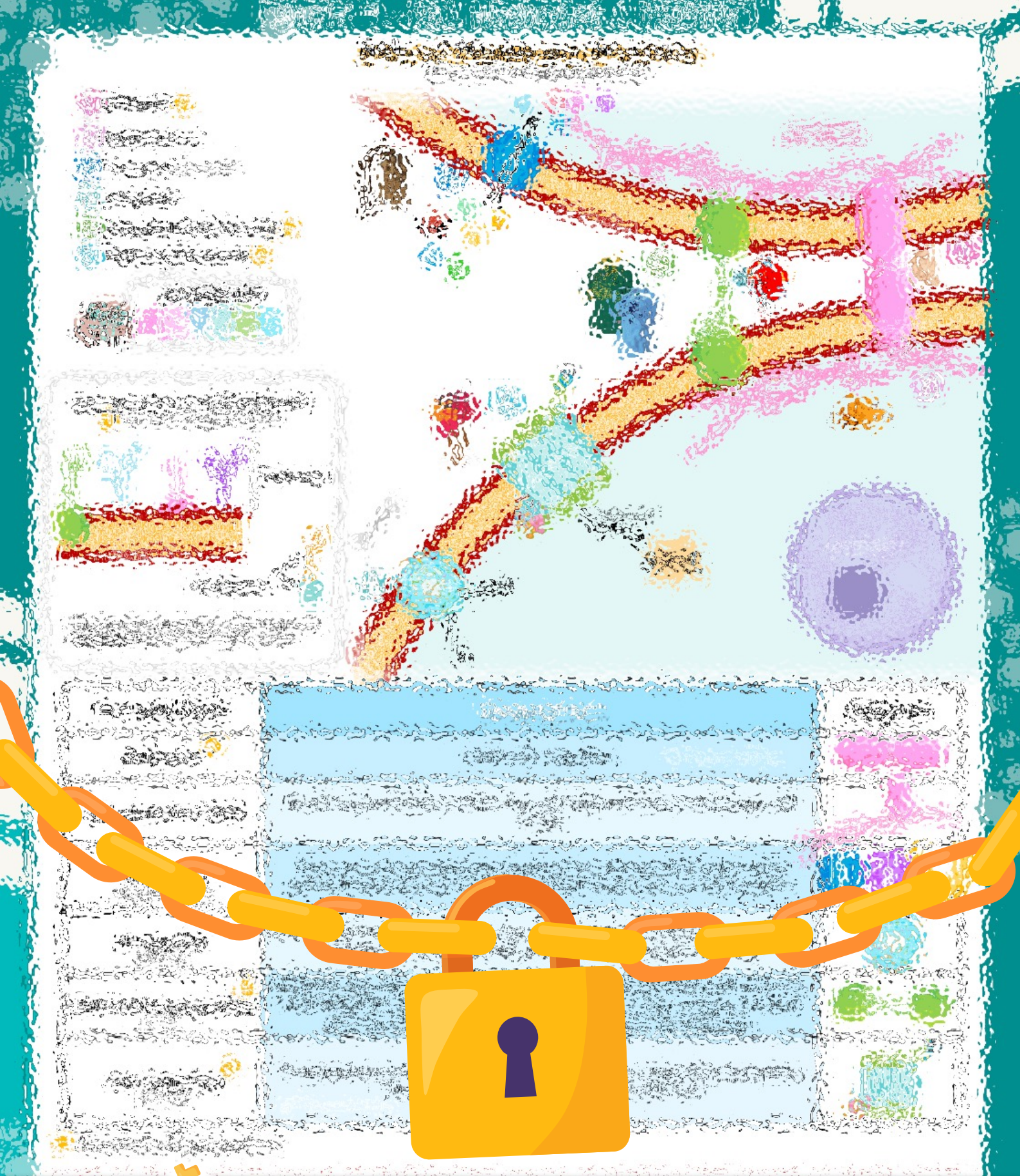
Structure of the nuclear membrane (even the mitochondria)



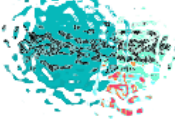
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