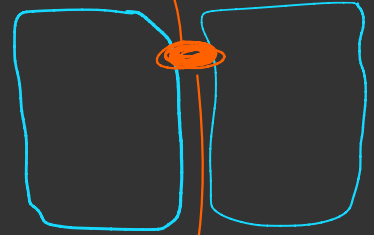


## Tight junctions

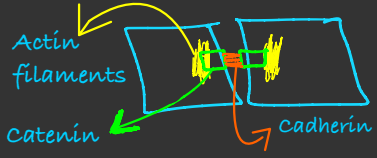
- there's another name for it which is : **zonula occludans**
- Barrier to para cellular movement
- maintain the polarity
- **zonula occludans** found near the apical surface
- proteins that form the tight junction is ( **claudins / occludins** )



# Anchoring

## Adherens

- Another name for it (zonula adherens)
- It is located below the tight junction
- It's main job is attaching two cells together by:
  - \*cadherin
  - \*catenin

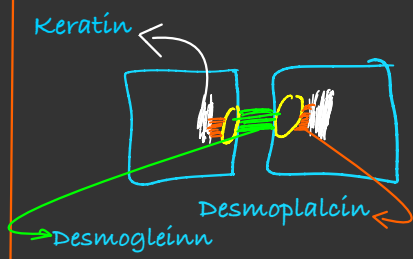


## Desmosomes

- It has two names:
  - \* spot Desmosomes
  - \* macula adherens
- It's also located below the tight junction
- It's job also attaching two cells together by:-

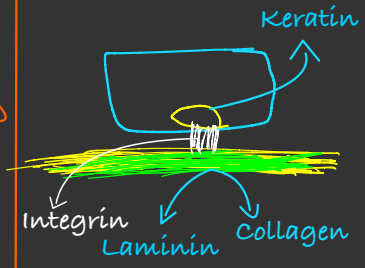
### -Cadherin-

- Desmoglein
- Desmoplalin



## Hemi-desmosomes

- It is located at the lowest point on the cell
- It's main job is to connect cells with basement membrane by
  - \*keratin : it's found on cells
  - \*laminin (glycoprotein) : it is found on basement membrane
  - \*collagen : that links with laminin



# Channel forming

• It's main job is to transport molecules between the cells.

Why channels

• It's name is gap junction

• This gap made of protein :- **connexin**

• Six molecules of protein **connexin** make the channel it's name is :- **CONNEXON**

• The kind of molecules that these channels transport between cells is :-

1-electrical

2-chemical

The cells ⇒

