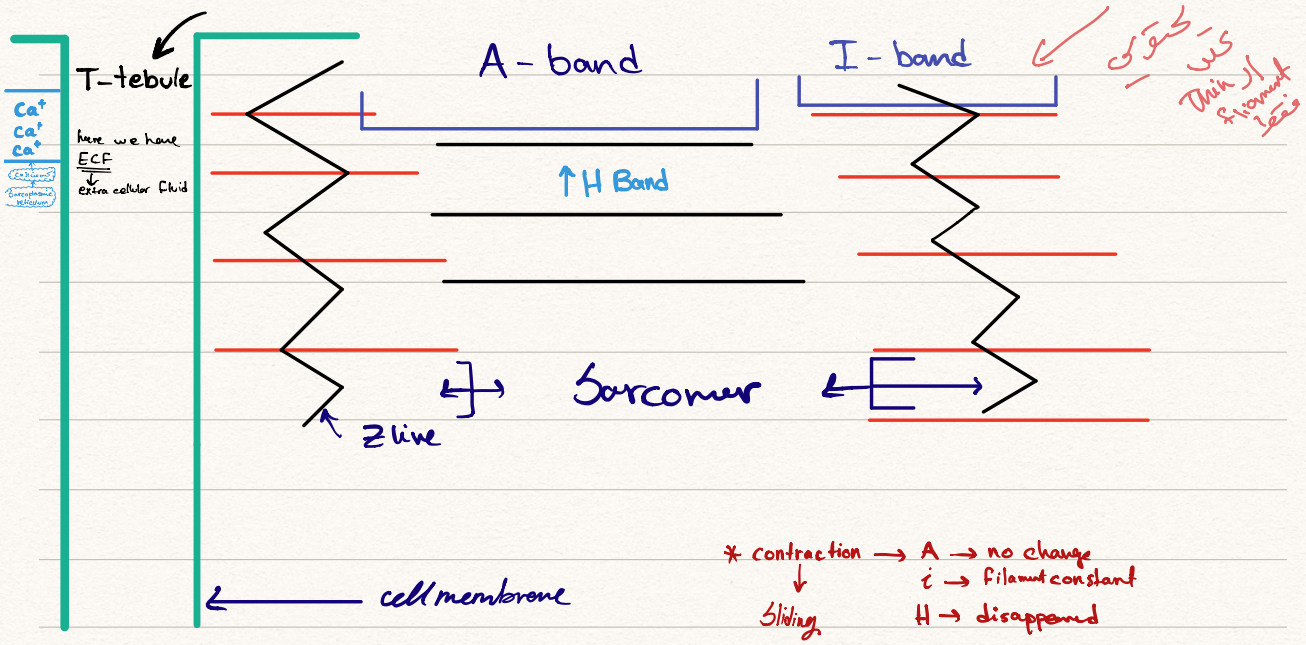


Qs

1- How can we get a contraction?

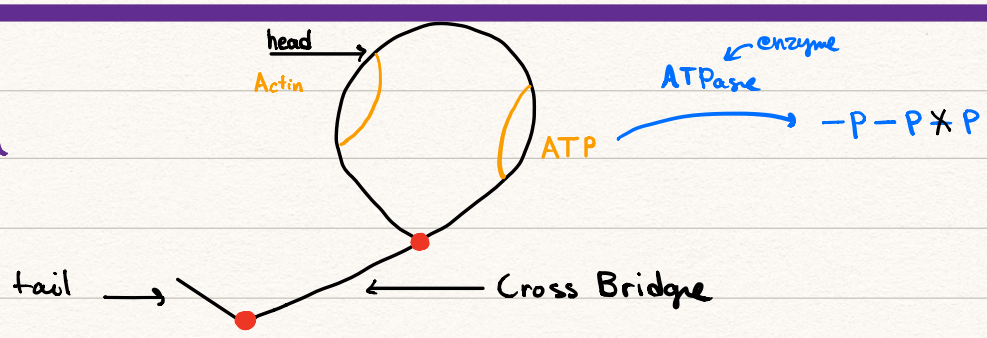
Sliding Filament mechanisme.

2- Which band gets shorter?

I band, but A band is constant.

Thick

1- myosin



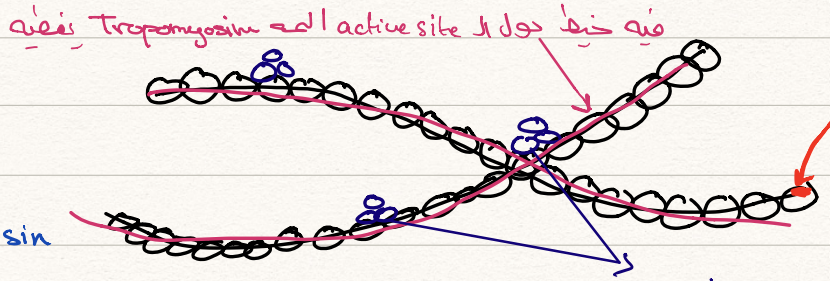
3- How many active site?

two active sites

4- What breaks the ATP to phosphate?

ATPase

Thin



1- Actin

2- Tropomiosin

3- Tropomin complex

Tropomiosin
Tropomine complex

5- What covers the active site?

Tropomyosine

6- How can Actin interact with myosine?

First Troponine should be removed by Ca^+ then the Troponine look will change, the active site is revealed then its the chance for myosive to bind with the actin.

7- When ATP breaks what happenes?

actin & myosine → power stroke!

8- whats the use of powr stroke?

Move and pull the actin towards the myosin.

9- How to remove the actin from myosin (Break the bond)

with new ATP

10- if there is no new ATP what will happen?

Actin and myosin stay together and the contraction goes on until a new ATP comes to break the binding and go back to relaxation.

11- How to have a relaxation muscle?

By stopping the Ca^+ we need energy to push the Ca^+ from

low to high to the Sarcoplasmic reticulum which contains pumps that accepts the Ca^{2} again to ther store.

12- How to get the Ca^{+} out from the Sarcoplasmic reticulum?

We need an AP that opens the voltage gated ca^{2} channels, so that Ca^{+} can go and bind with troponine.

13- Does the contraction require energy?

Yes

14- Does the relaxation require energy?

Yes

15- How many ATP for one cycle?

3 ATP

16- How many types of contraction?

Two types: Isometric (the length is constant the tone change)

Isotonic (the tone is constant the length changes)