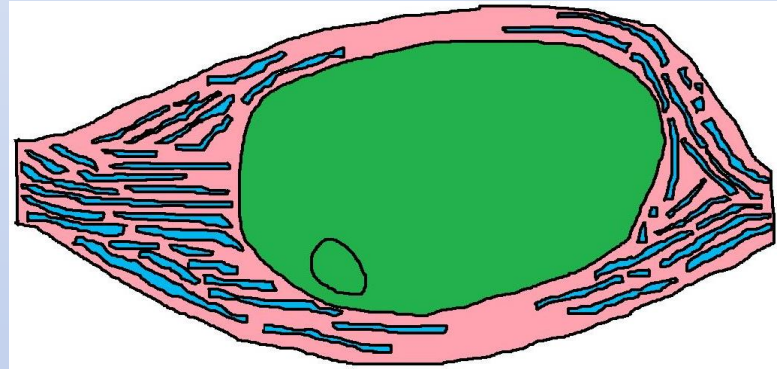
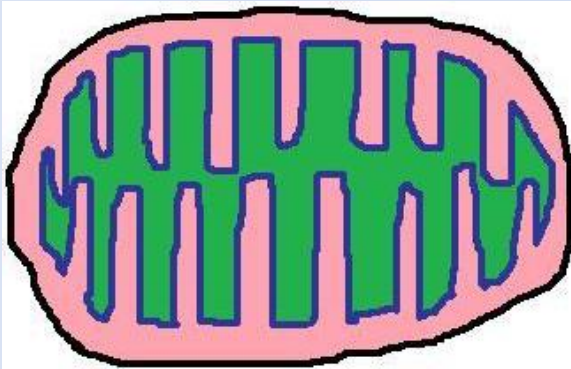


# Controlling Mitochondrial Fission

Christopher Welsh

# Pre/Post-Lab Mitochondria



\*Stationary

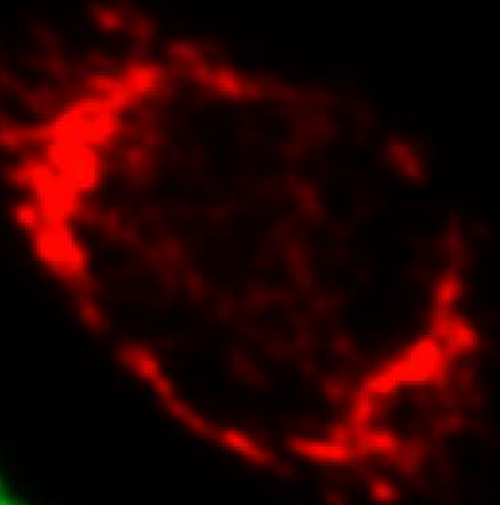
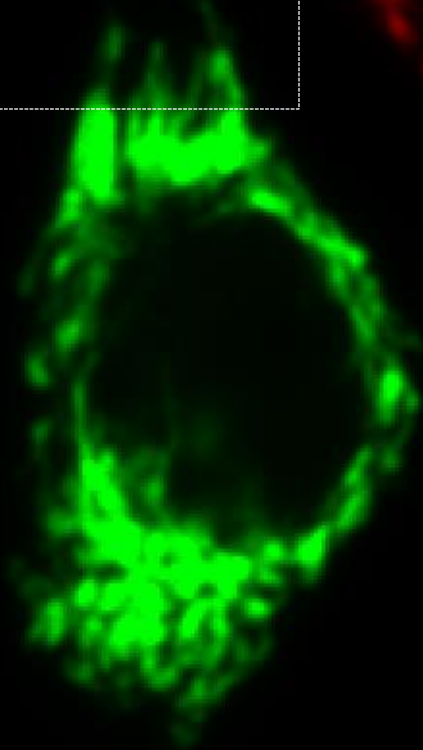
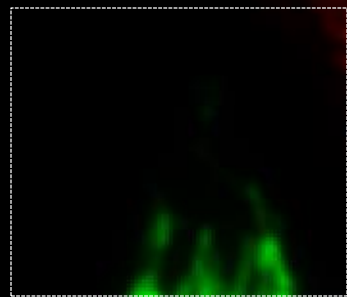
\*Glucose  $\rightarrow$  ATP

\*Fusion + Fission

\*Few around  
cell

\*Many

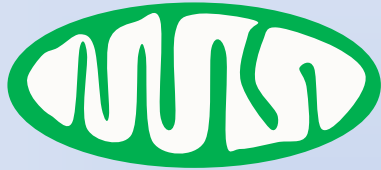
Every 30 sec/10-min recording



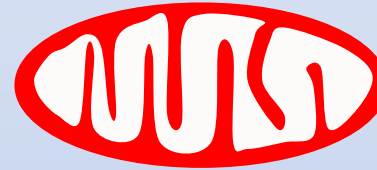
20  $\mu\text{m}$



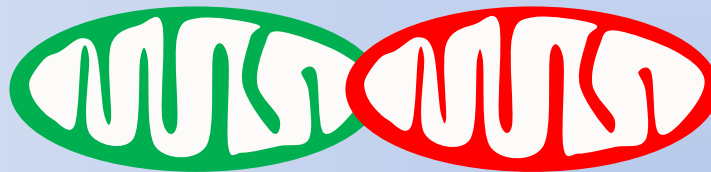
# Mitochondrial fusion



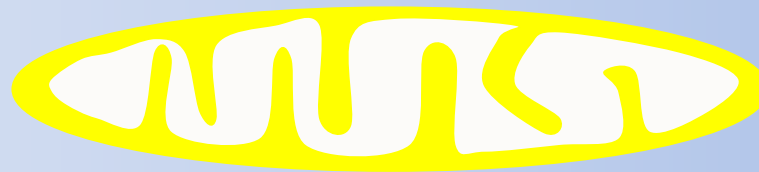
GFP



DsRed2



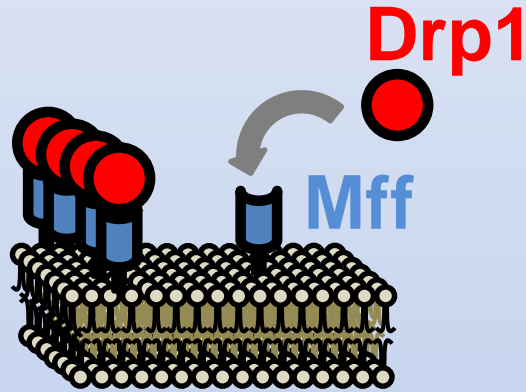
Proteins Involved



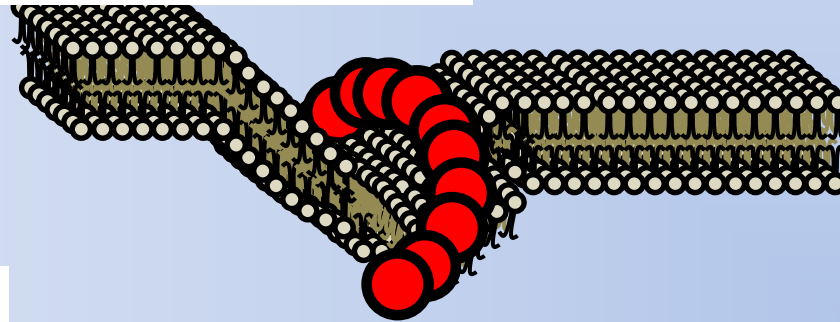
fused

# Mitochondrial Fission Machinery

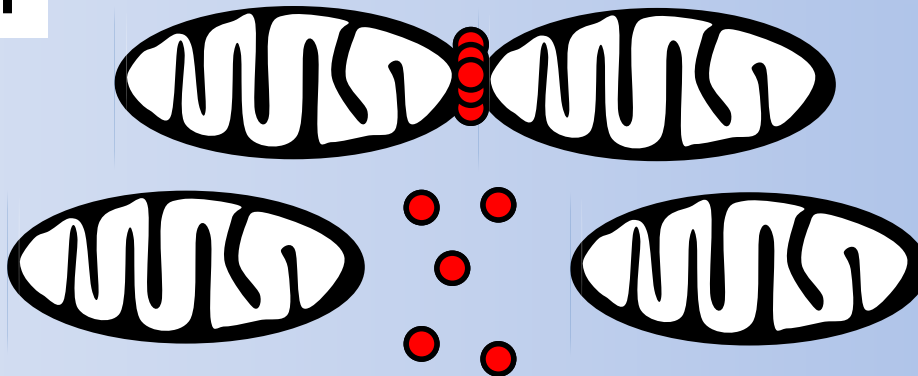
Targeting



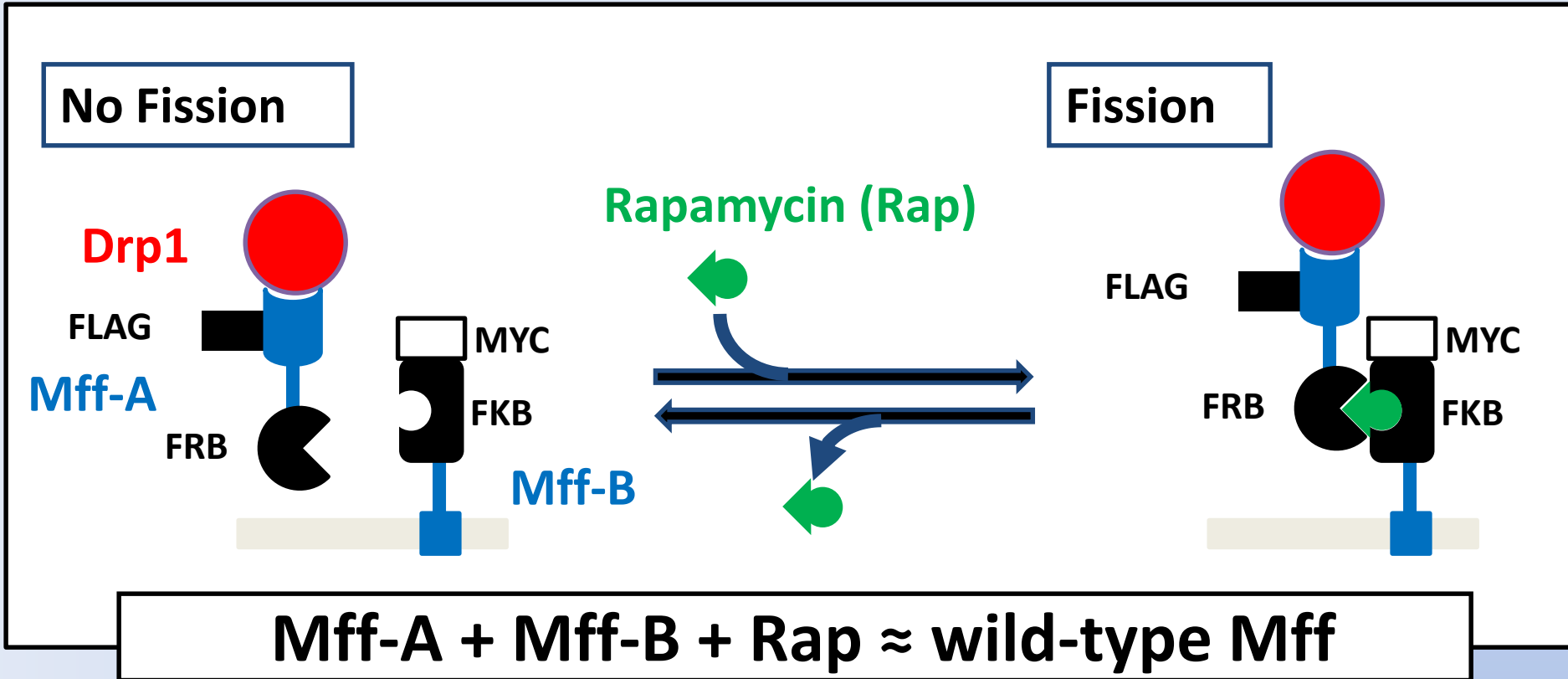
Membrane constriction



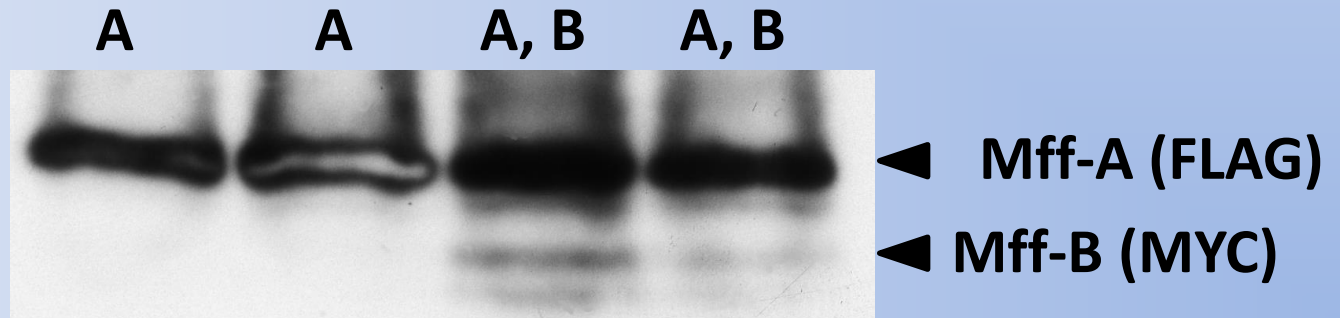
Fission



# Switchable Mff Protein



Western blot analysis

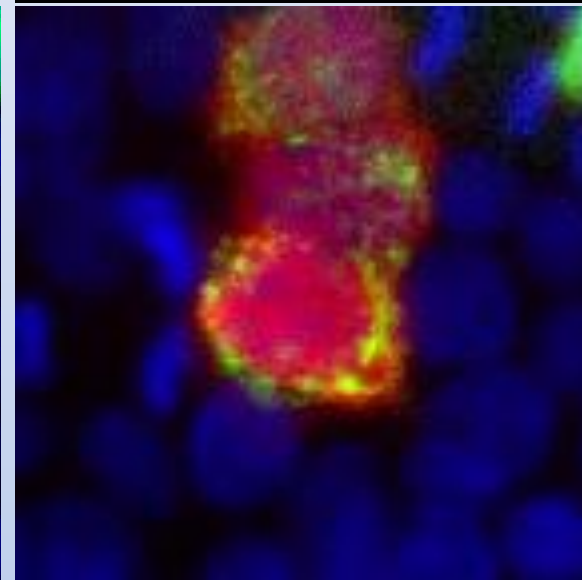
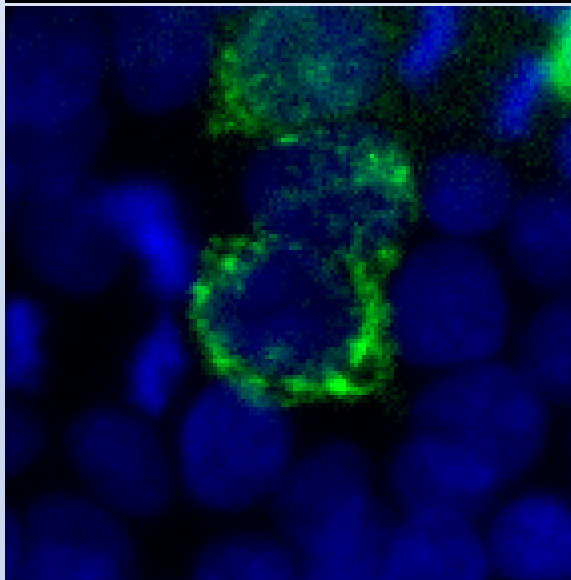
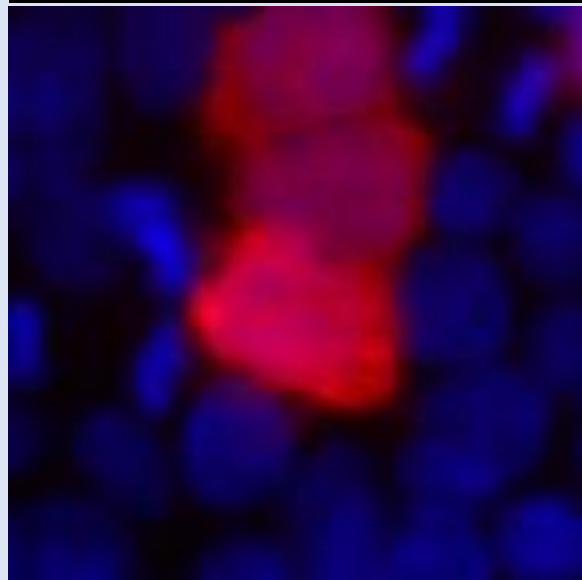


**FLAG**

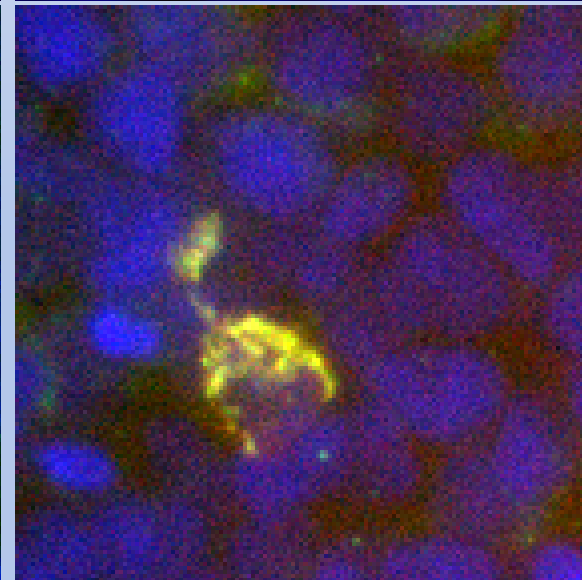
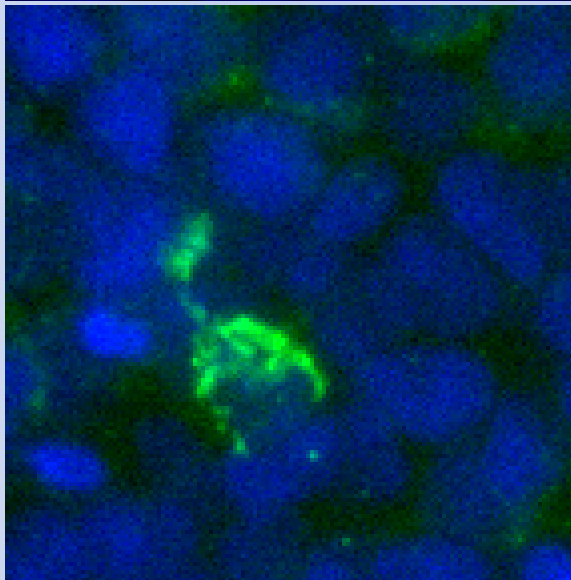
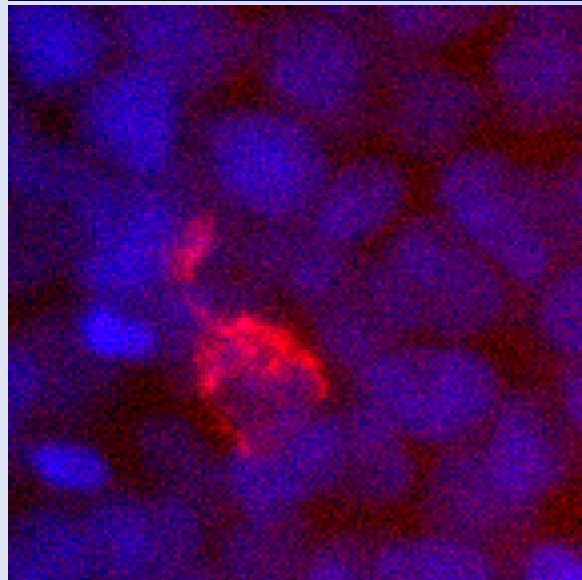
**MYC**

**Merge**

**- Rap**



**+ Rap**



# Acknowledgment

## **Morrison Lab**

Rick Morrison

Takuma Uo

Camille Guzzi (UW undergrad)