



# Prokaryotic Cell /Eukaryotic Cell

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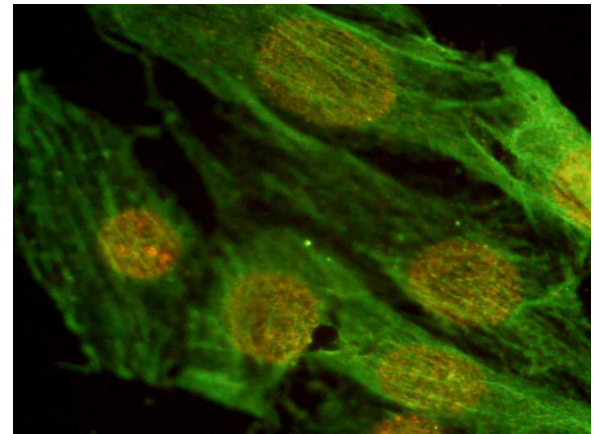
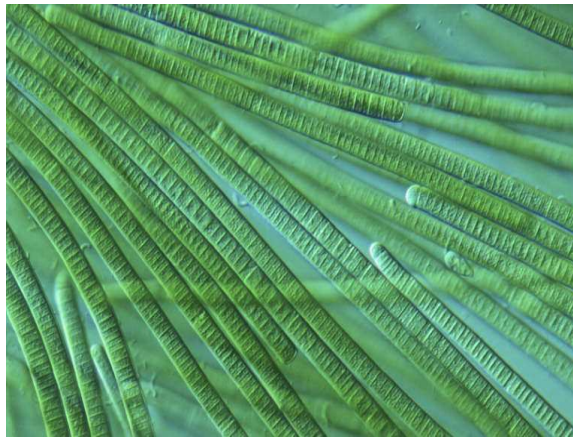
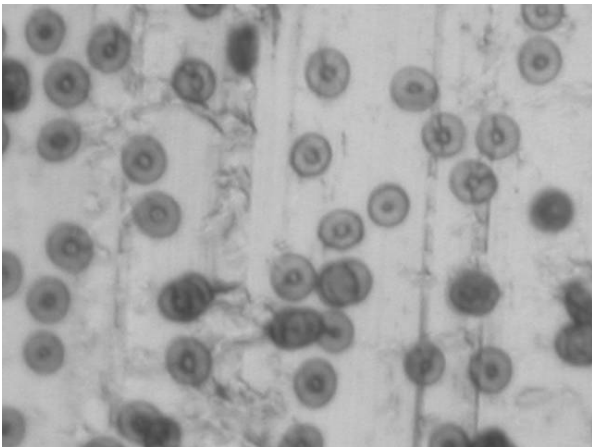
# Two types of cells:

Prokaryote Cells

And

Eukaryote Cells

# First, what is a cell?!





# Cell Theory says that.....

1. All living things are made of cells.
2. Cells are the basic units of structure and function in all living things. In other words, cells are like the building blocks of all living things.
3. New cells are only made from existing cells.

# Cells come in all shapes and sizes!



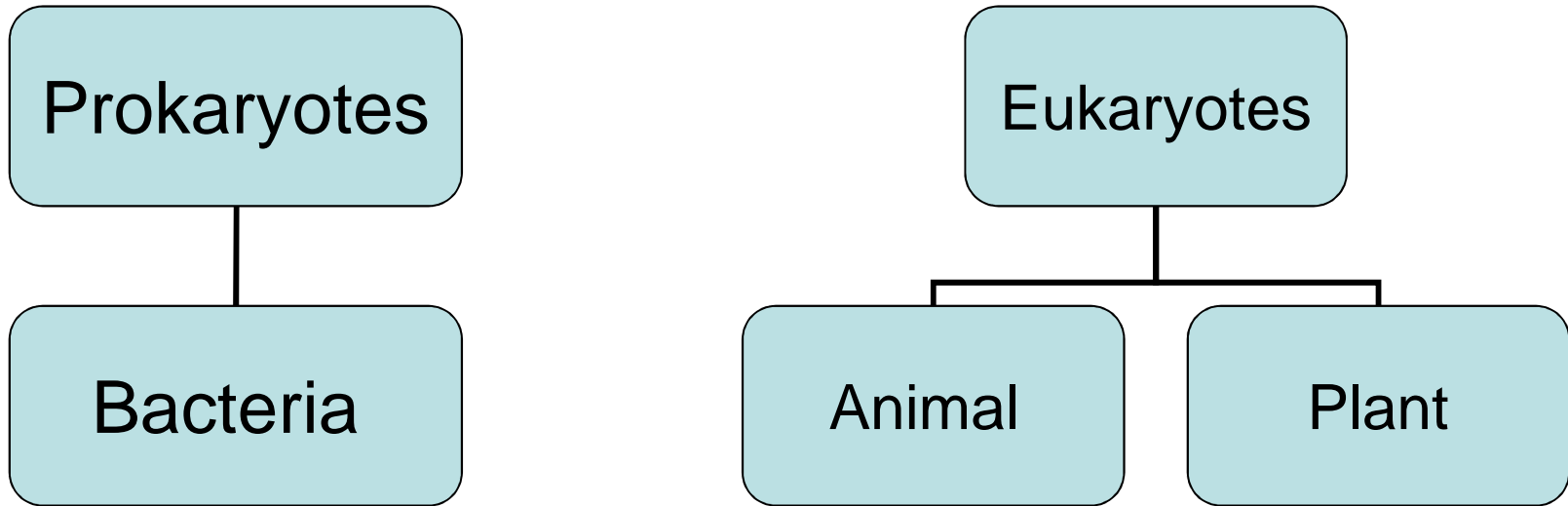
There are two types of cells:

Prokaryotic Cells

and

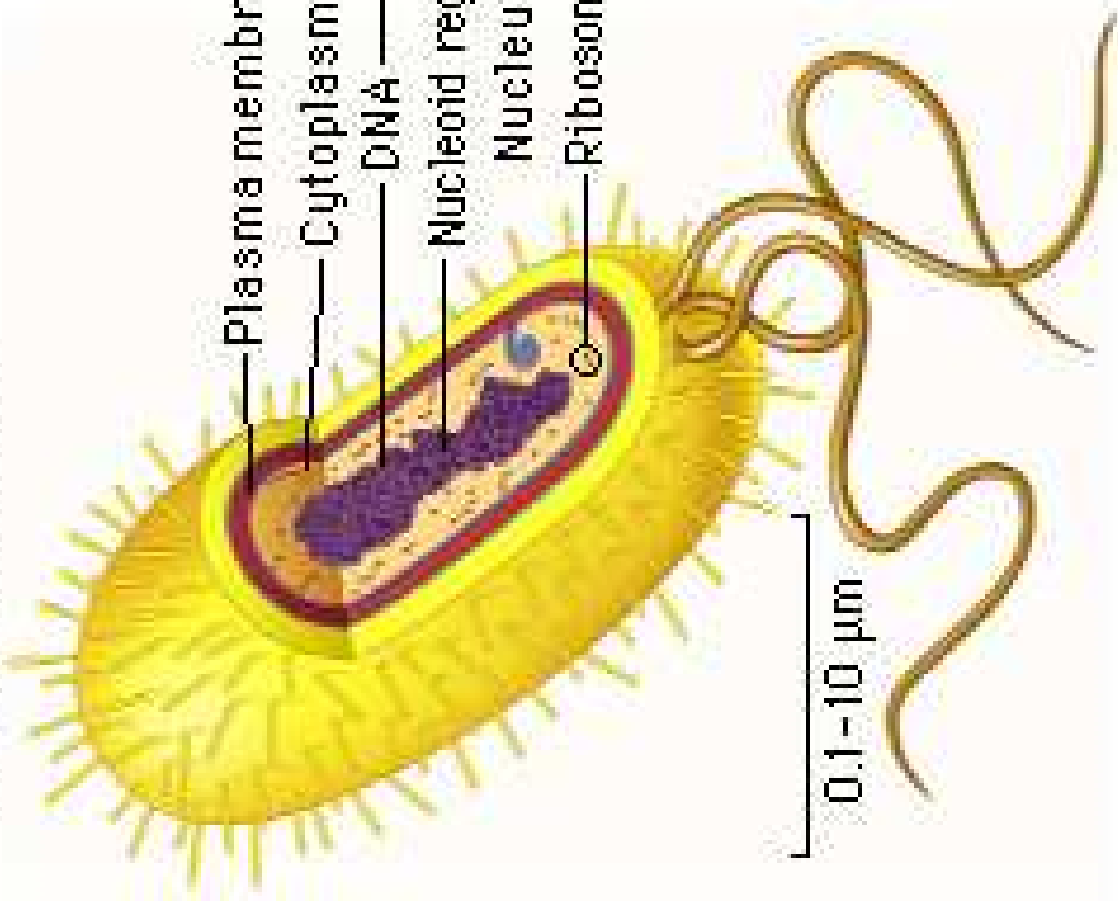
Eukaryotic Cells

*These are two distinct types of cells with  
**STRUCTURAL** differences.*

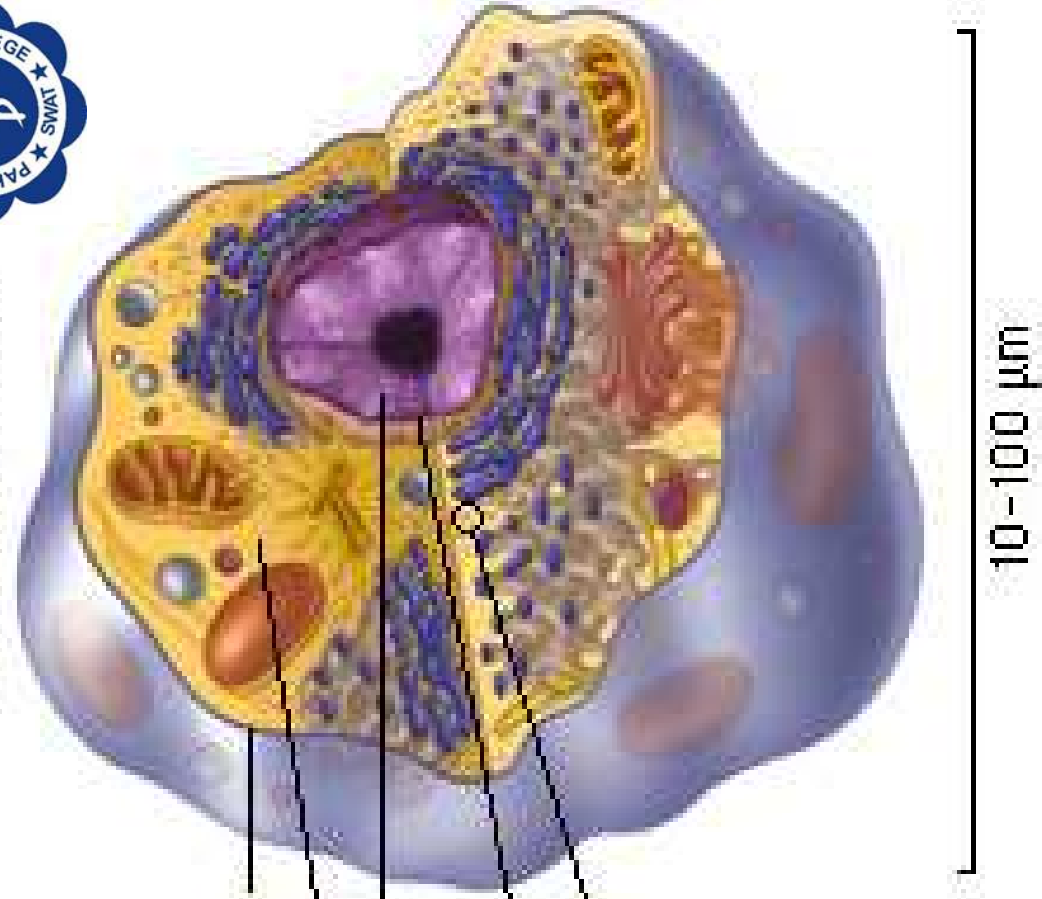




Prokaryotic cell



Eukaryotic cell





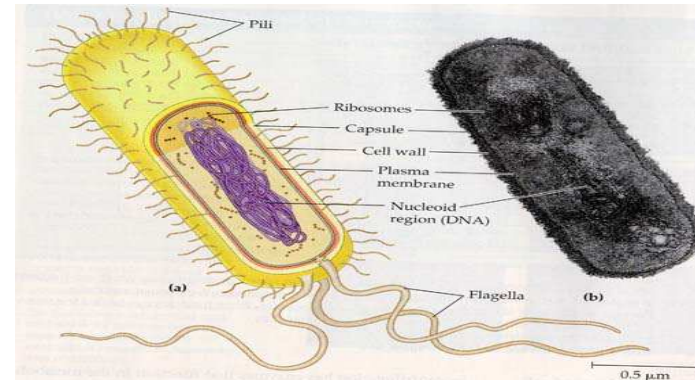


# Prokaryote Cell

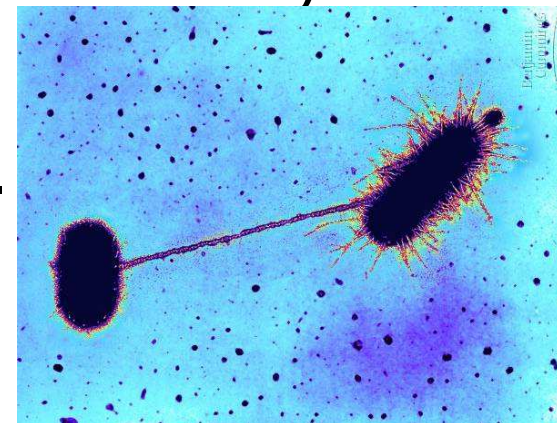
*A single celled organism that does not have a nucleus.*

*Add this to your vocabulary book*

# Traits of Prokaryotes: (pro-care-ee-ohts)

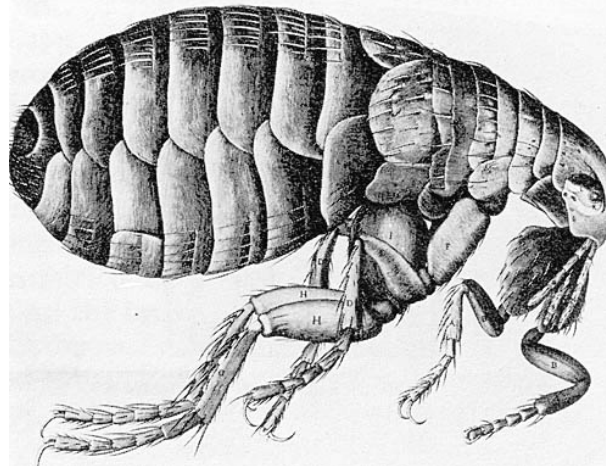


1. They do not have a nucleus, and their genetic material is not stored in the nucleus.
2. They have some organelles, but not many.
3. They are less complicated than eukaryotes.
4. All bacteria are prokaryotes.



*Bacteria may be small but they are powerful!*

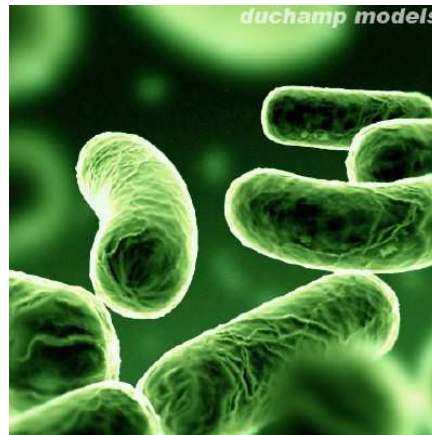
*During the 14<sup>th</sup> century, 25% or ¼ of Europe was killed by a bacteria called the Bubonic Plague, also called Black Death. This bacteria was spread through fleas and rodents.*





# But at the same time we need bacteria to live!

1. Bacteria are decomposers and without them all other organisms would not be able to survive.
2. We use bacteria in our digestive system to help digest our food. There are approximately ten times as many bacterial cells as human cells in the human body!
3. We could not make cheese or yogurt without bacteria.





# Eukaryote Cell

*A more complex cell  
with a nucleus and  
many organelles.*

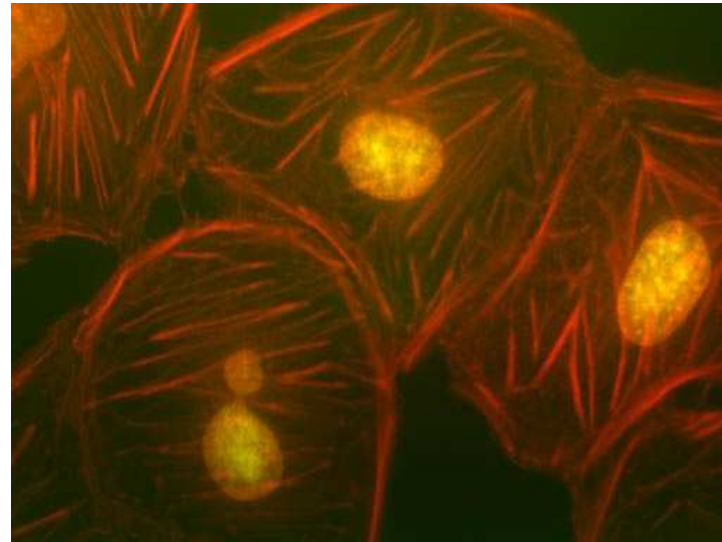
*Add this to your vocabulary book*

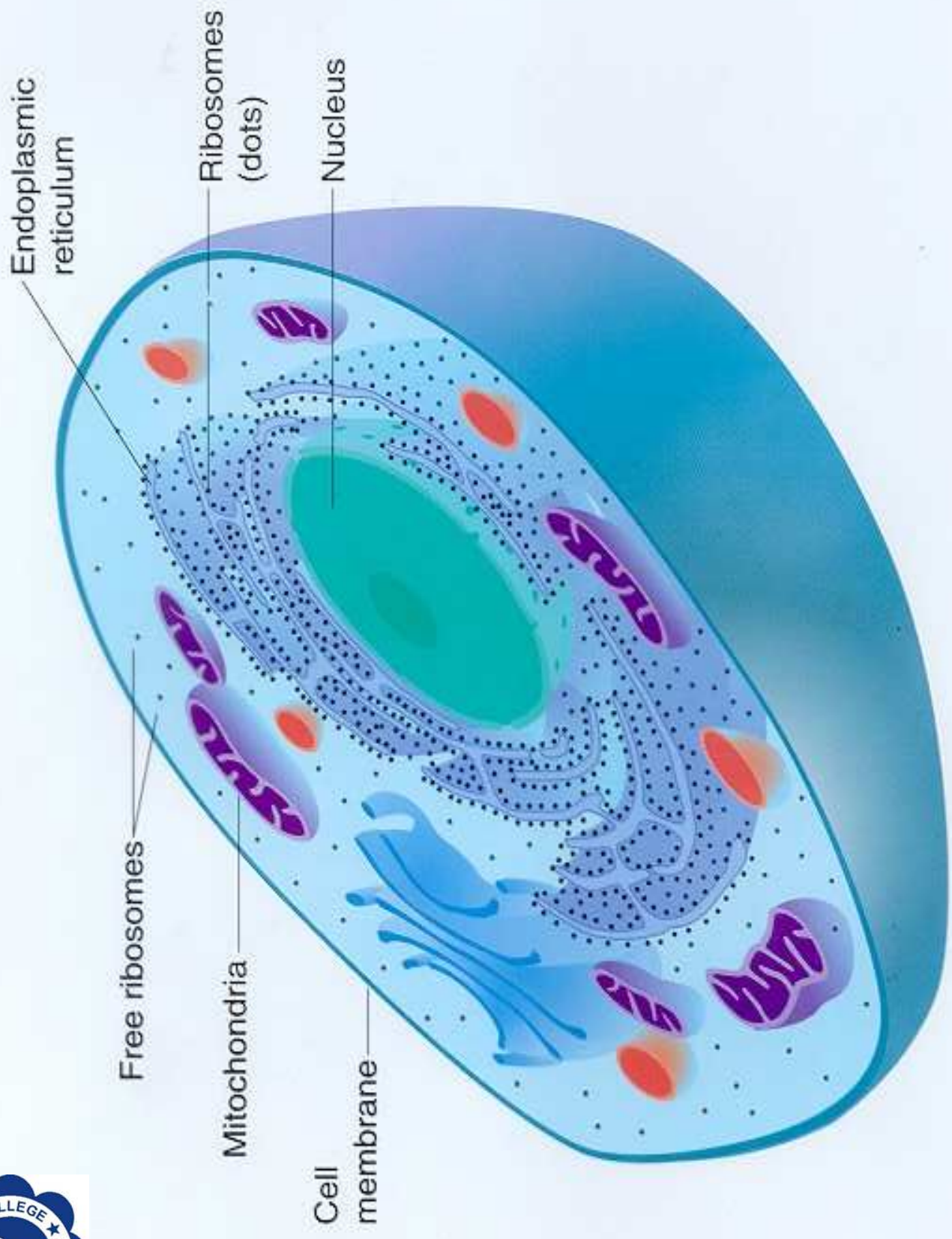




## Traits of Eukaryotes: (you-care-ee-othts)

1. They all have a nucleus where the genetic material of the cell is stored.
2. They have many organelles that work together to help the cell function.



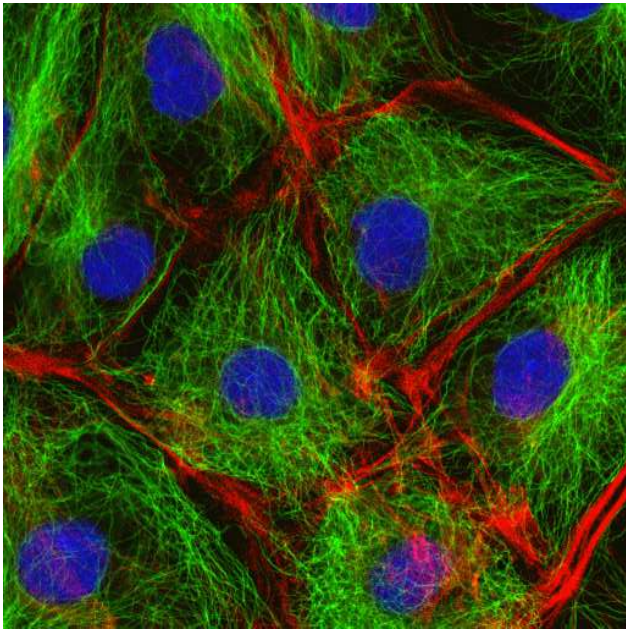


## More traits of Eukaryotes: (you-care-ee-othts)

4. Eukaryotic cells are much more complex than prokaryotic cells.
5. They can be just one cell or can make up more complex multi-cellular organisms.
6. All plants, animals, fungi, and protists are eukaryotic cells.







Think – Pair - Share

What do you think is  
the main difference  
between a prokaryotic  
cell and a eukaryotic  
cell?



# The nucleus!

Prokaryotic cells do not have a nucleus and eukaryotic cells do have a nucleus. This allows eukaryotic cells to make multi-cellular organisms and perform more complex functions.



**THE END**

**THANK YOU**