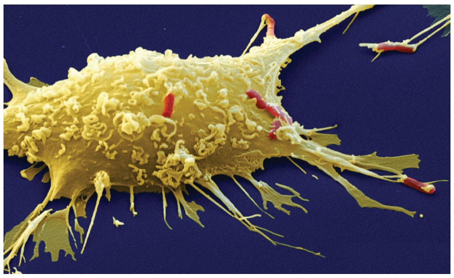
3.1 Cell Theory

KEY CONCEPT **Cells are the basic unit of life**



3.1 Cell Theory

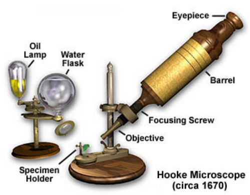
- **The cell theory grew out of the work of many scientists and improvements in the microscope.**
  - Many scientists contributed to the cell theory.

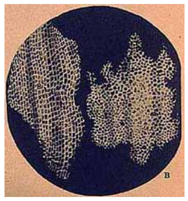
3.1 Cell Theory

- **Robert Hooke 1665** **First to identify cells and name them.**

3.1 Cell Theory

- **Hooke Looked at cork under microscope**



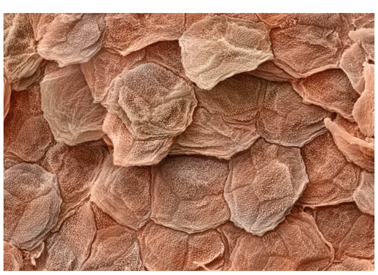


3.1 Cell Theory

- **Anton van Leeuwenhoek 1674**
- **Made a more powerful single lens microscope.**
- **Looked at drop of pond water and discovered single-celled organisms.**

3.1 Cell Theory

- **Cell Theory**
  - Has three principles.
    - All living things are made up of cells and cell products.



3.1 Cell Theory

- **Cell Theory**
  - Has three principles.
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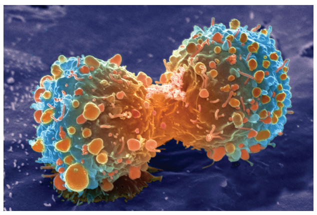
    - All cells are formed from other cells through cell division.

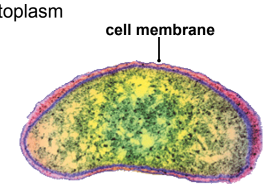


3.1 Cell Theory

- **Cell Theory**
  - Has three principles.
    - All living things are made up of cells and cell products.
    - All cells are formed from other cells through cell division.
    - The cell is the most basic unit of life.

3.1 Cell Theory

- **All cells share certain characteristics**
  - Cells tend to be microscopic.
  - All cells are enclosed by a membrane.
  - All cell are filled with cytoplasm



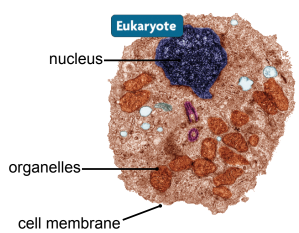
Bacterium
(colored SEM; magnification 8800x)

3.1 Cell Theory

- **There are two cell types: eukaryotic cells and prokaryotic cells.**

3.1 Cell Theory

- **Eukaryotic cells**
  - Eukaryotic cells have a nucleus.
  - Eukaryotic cells have membrane-bound organelles.



3.1 Cell Theory

- **Prokaryotic Cells**
  - Prokaryotic cells do not have a nucleus.
  - Prokaryotic cells do not have membrane-bound organelles.