

## Bio I

### Notes: Evolution of the Cell

Spontaneous generation:

Disproving spontaneous generation

- Francesco Redi (1688):

- Louis Pasteur (mid-1800s):

Biogenesis:

Characteristics of life

1.

2.

3.

4.

5.

**Hypothesis:** *Life on Earth developed from nonliving materials that became ordered into molecular particles that eventually became capable of reproduction.*

Steps in the evolution of the cell:

1.

2.

3.

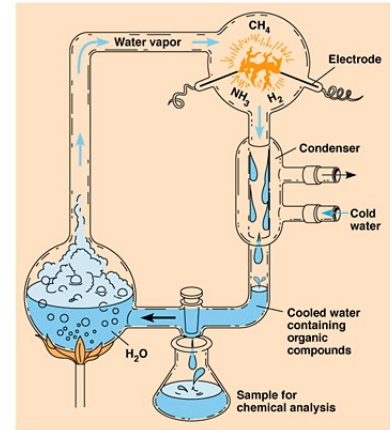
4.

*Conditions of early Earth*

*Simple organic molecules formed*

- Alexander Oparin:

- Stanley Miller and Harold Urey:



*Complex organic compounds formed → Protocell*

- Sidney Fox:

*Heterotrophic, prokaryotic organisms:*

*Autotrophic, prokaryotic organisms:*

*Eukaryotic organisms*

- Lynn Margulis – Endosymbiont Theory:



