

# **Presentation on Cell Theory**

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# Introduction

Cell theory is a scientific theory that describes the properties of cells.  
The study of cells is called cell biology.

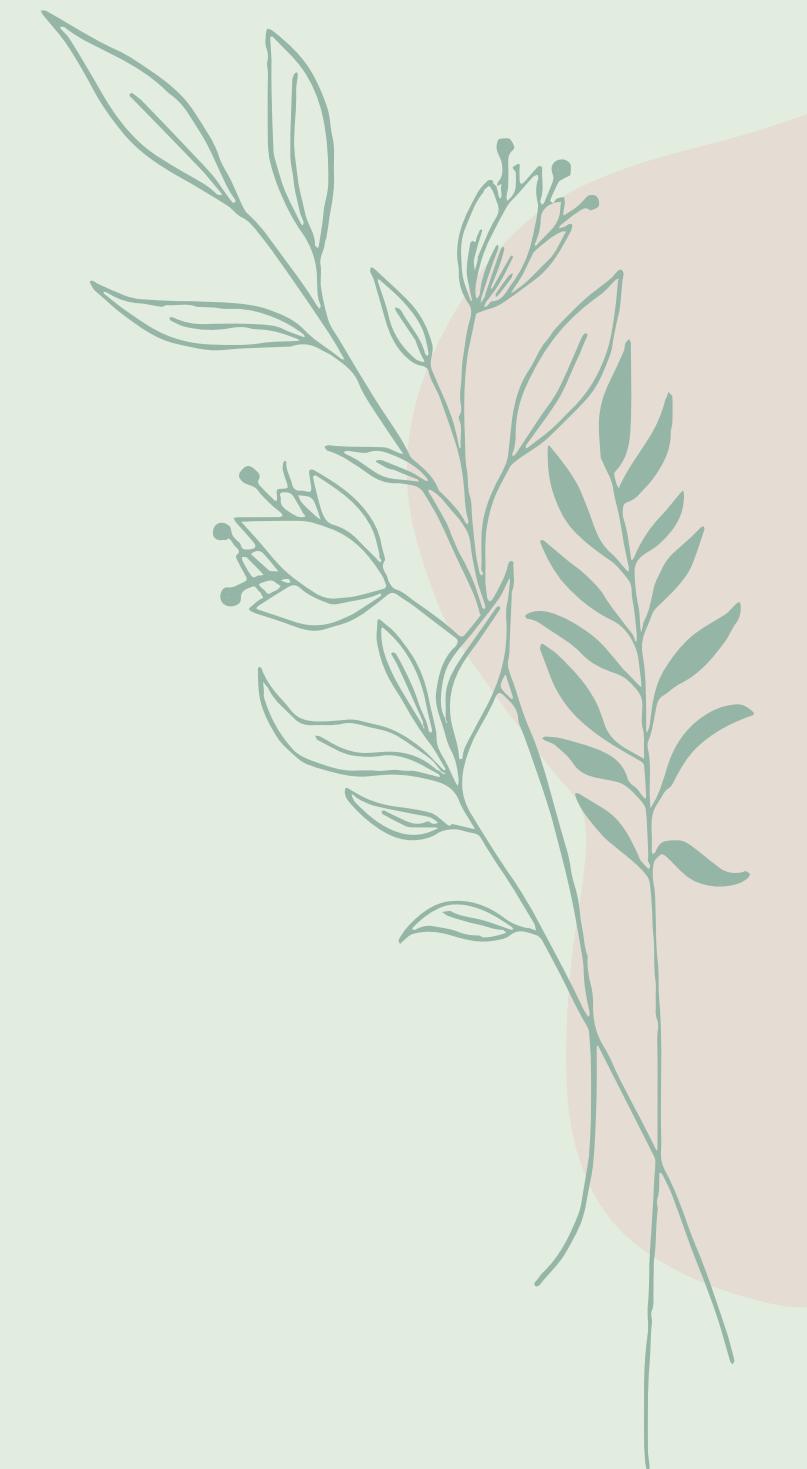
A cell is a structural and functional unit of life.  
The cell was discovered by Robert Hooke, but the living cell was first  
observed by Anton Van Leeuwenhoek.

# DEVELOPMENT OF CELL THEORY

- IN 1833 - German botanist, Mathias Schleiden concluded that all plant parts are made of cells.
- IN 1839 - German physiologist, Theodor Schwann who was a close friend of Schleiden, stated that all animals are composed of cells.
- IN 1858 - Rudolf Virchow, German physician, after extensive study of cellular pathology, conclude that cell must arise from pre-existing cells.



# CELL THEORY



- All organisms are made up of one or more cells.
- A cell is the basic unit of life in all living things.
- All cells are produced by the division of pre-existing cells.

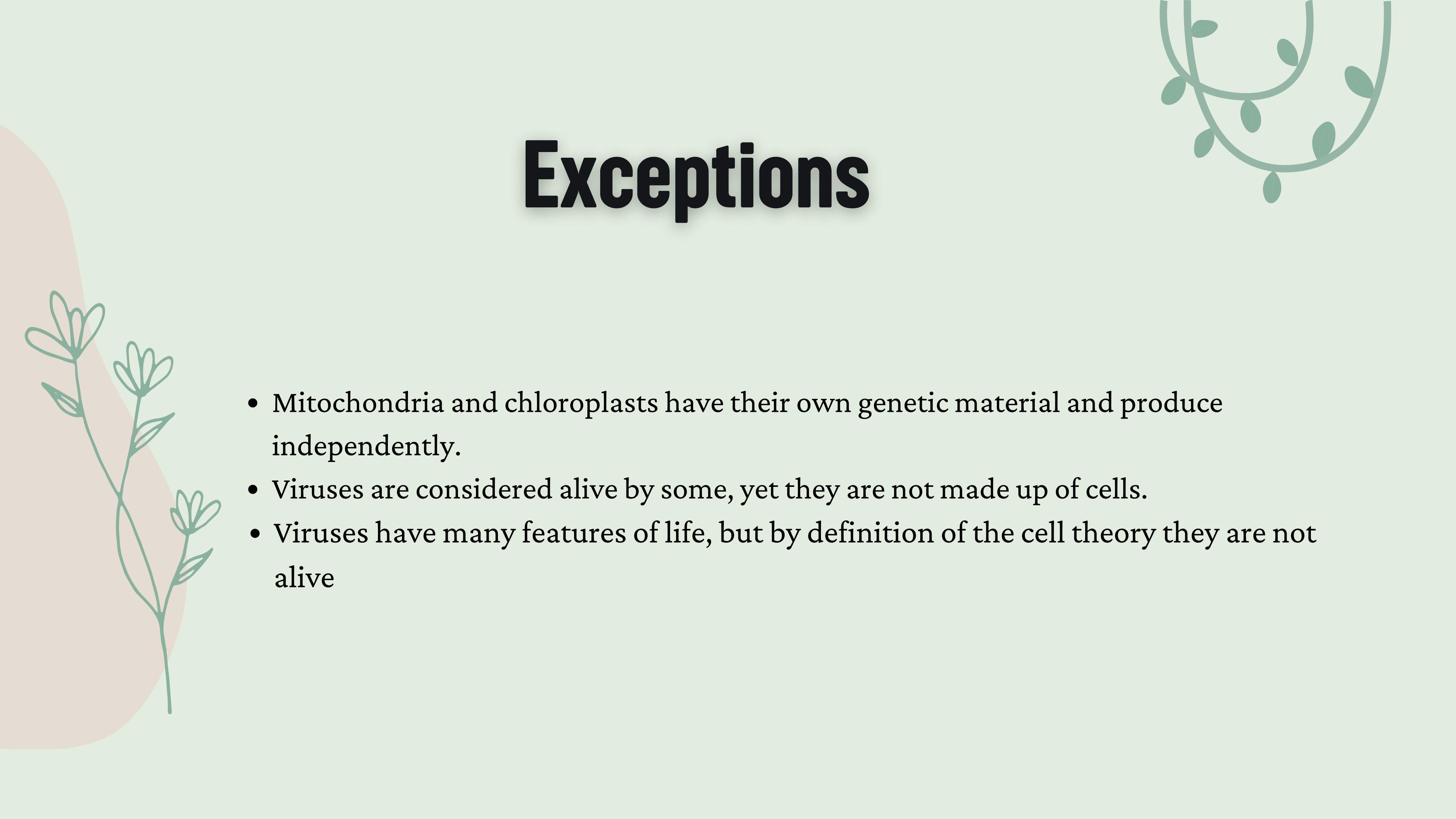
# Modern interpretation

**The cell contains hereditary information, which is passed on from cell to cell during cell division.**

**All cells are basically the same in chemical composition and metabolic activity.**

**All basic chemical and physiological functions are carried out inside the cells (movement, digestion etc.).**

**Cell activity depends on the activities of subcellular structures within the cell(Organelles, nucleus, plasma membrane etc.) .**



# Exceptions

- Mitochondria and chloroplasts have their own genetic material and produce independently.
- Viruses are considered alive by some, yet they are not made up of cells.
- Viruses have many features of life, but by definition of the cell theory they are not alive

# Thank You