

AI Response:

Cell adhesion refers to the process by which cells interact and attach to neighboring cells.

There are several key components and types of cell adhesion:

1. **Adhesion Molecules**: These are proteins that mediate cell adhesion and are categorized into several types:
 - **Cadherins**: These molecules mediate calcium-dependent cell-cell adhesion.
 - **Integrins**: These are receptors that facilitate cell-extracellular matrix adhesion.
 - **Selectins**: These molecules are involved in the adhesion of immune cells.
 - **Immunoglobulin Superfamily (IgSF) Proteins**: These proteins are involved in cell-cell adhesion.
2. **Extracellular Matrix (ECM)**: The ECM provides structural support to tissues and is a key component of cell adhesion.
3. **Cell Communication**: Cell adhesion not only provides physical anchorage but also facilitates communication between cells.
4. **Role in Disease**: Abnormal cell adhesion is implicated in various diseases, including cancer and autoimmune disorders.

Understanding cell adhesion is crucial in developmental biology, immunology, and disease research.