## Prokaryotic Cell Structure

### General Summary

The biological world is fundamentally categorized by two cell types: eukaryotic and prokaryotic. Prokaryotic cells are a distinct classification found exclusively in bacteria; all other living organisms are composed of eukaryotic cells. The structure of a prokaryotic cell includes several key components with specific functions. Both the capsule and cilia facilitate adhesion to surfaces, including plastics. The flagella are responsible for movement, while ribosomes carry out protein synthesis. The cell's genetic material is contained in its DNA. Other core structural elements include the cell wall and cell membrane.

### Cellular Classification

There are two primary classifications for cells:

- **Eukaryotic cells:** Comprise all living organisms except for bacteria.
- **Prokaryotic cells:** Found only in bacteria.

### Structure and Components of Prokaryotic Cells

The prokaryotic cell is composed of several distinct parts, each with a designated role. The following table details the components and their functions as identified in the source material.

| Component | Function / Description |
|---|---|
| **Cell wall** | Protects bacteria and prevents bursting |
| **Cell membrane** | Patrolling border |
| **Capsule** | Enables the bacterium to adhere to surfaces, such as plastics. |
| **Ribosome** | The site of protein synthesis. |
| **DNA** | Serves as the cell's genetic material. |
| **Cillia** | Facilitates the bacterium's ability to stick to surfaces. |
| **Flagella** | Provides the means for movement. |