

MODULE 5: Eukaryotic Microorganisms

LEARNING OUTCOMES

1. Summarize the major types of eukaryotic microorganisms.
 2. Define the primary characteristic that distinguishes eukaryotic microbes from bacteria.
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INTRODUCTION

The Domain *Eukarya* contains all eukaryotes, including unicellular or multicellular organisms such as protists, fungi, plants, and animals. The major defining characteristic of eukaryotes is that their cells contain DNA within a membrane-bound nucleus.

Eukaryotic microbes are an extraordinarily diverse group, including species with a wide range of life cycles, morphological specializations, and nutritional needs. Organisms classified in this domain include fungi (yeasts and molds), protists (protozoa and algae), helminths (flatworms and roundworms), and vectors of disease transmission such as insects and other arthropods. In this module, we will survey various eukaryotic organisms of clinical significance and review some of the major characteristics associated with each.



Figure 5.1: Mosquito netting is a primary defense against vector-borne illnesses like malaria, a disease caused by a eukaryotic parasite transmitted to humans by mosquitoes.