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1 Animals and Environments

Introduction

- ▷ What is physiology?
 - Form and function of organisms; the study of how organisms work.
- ▷ Central questions of physiology: **Mechanism** and **Origin**.
- ▷ Mechanism:
 - refers to the **components** of living organisms and understanding **how** components interact to enable the organism to function.
- ▷ Origin:
 - asks why a mechanism exists, or **what** is the mechanistic **adaptive significance** of the mechanism.
- ▷ August Krogh,
 - "For such a large number of problems there will be some animal of choice or a few such animals on which it can be most conveniently studied."

Homeostasis

▷

Physiology and Time

▷

2 Molecules and Cells in Animal Physiology

Cell Membranes



Enzyme Fundamentals



3 Genomics and Proteomics



4 Physiological Development



5 Transport of Solutes and Water



27 Water and Salt Physiology: Mechanisms



7 Nutrition, Feeding, and Digestion

