

# Pharmacology

Chairman

Professor Dr. Abdul Hameed

# Learning objectives

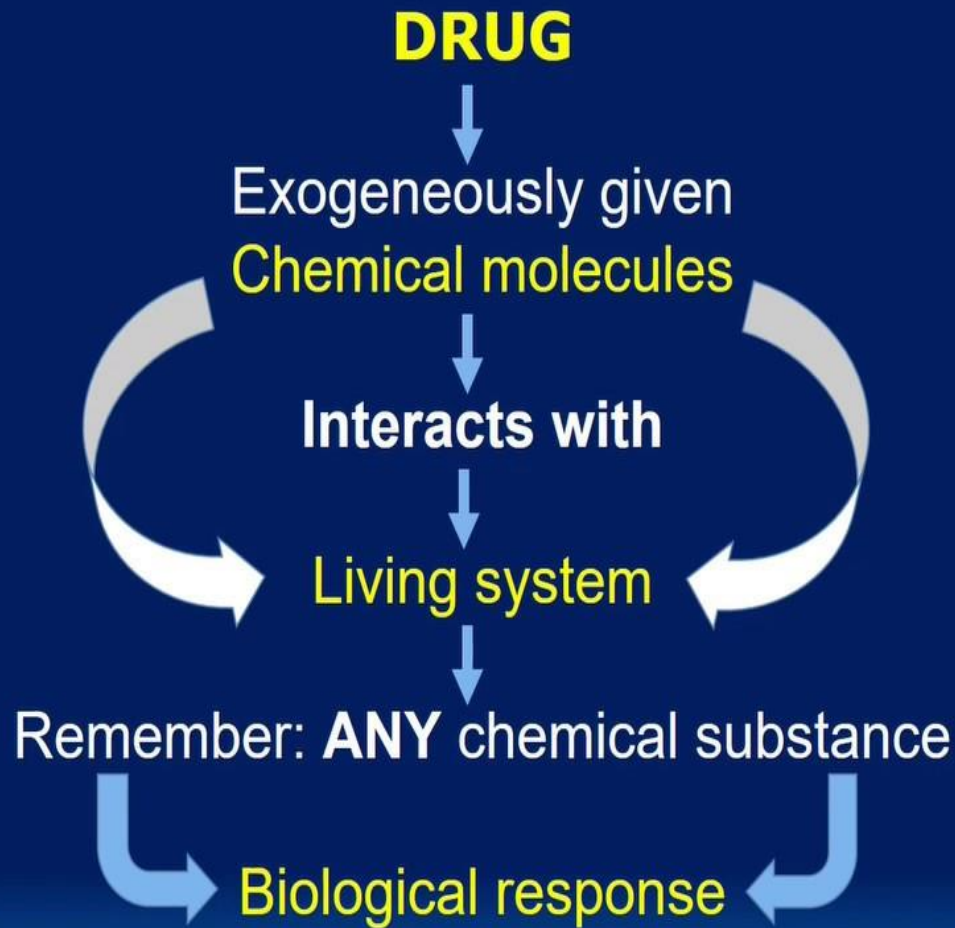
- Define Pharmacology
- Define its role in medicine
- Define Pharmacokinetics
- Define Pharmacodynamics



# Pharmacology

- Pharmacology is **the study of how a drug affects a biological system and how the body responds to the drug.**





# Role in medicine

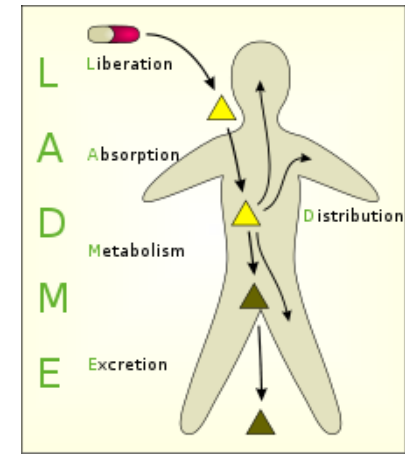


- Clinical pharmacologists are doctors with training in clinical pharmacology and therapeutics (CPT), which is the science of medicines and their clinical use. Their main role is to improve patient care through the safe, economic and effective use of medicines

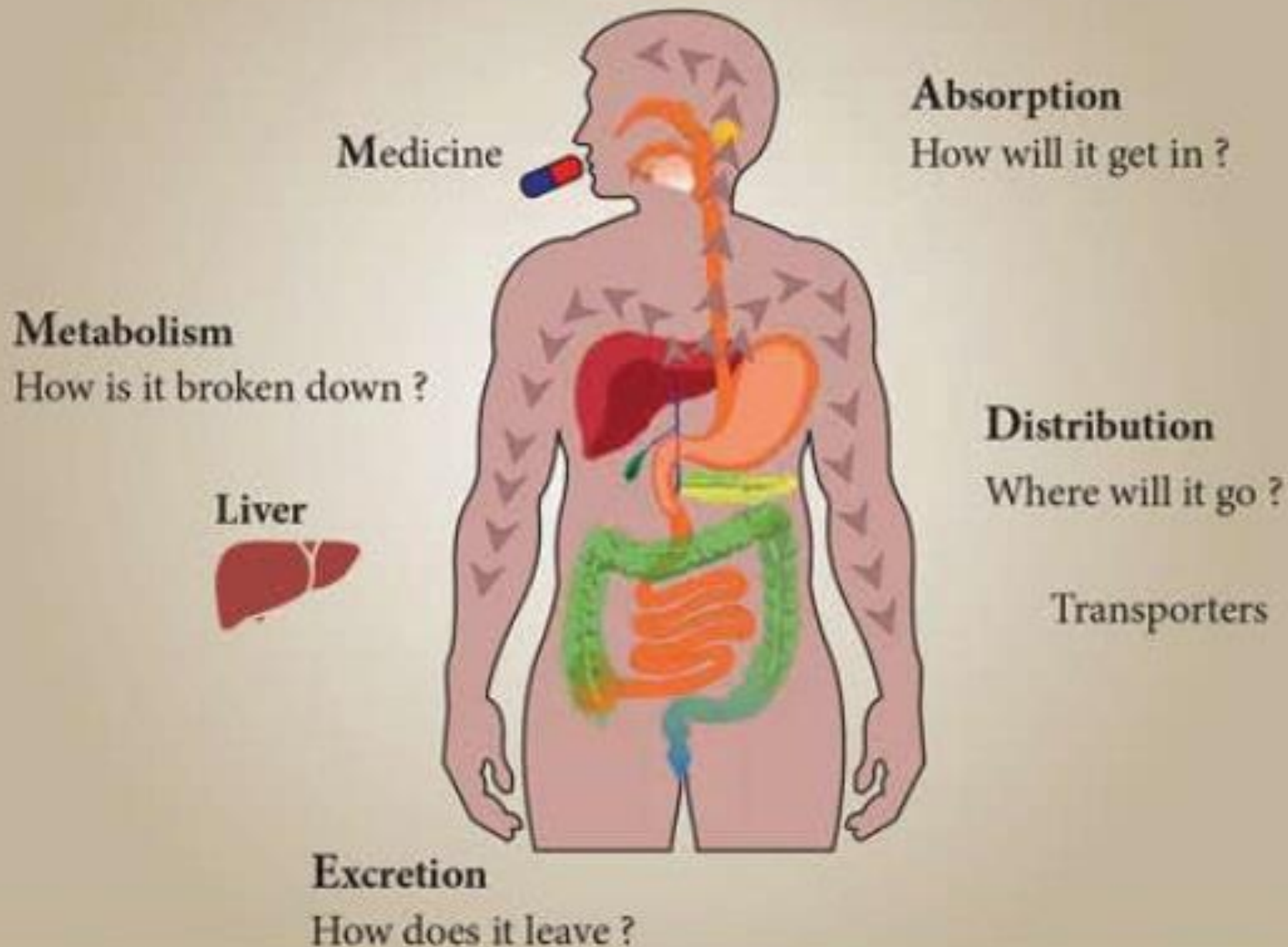
- Pharmaceutical physicians work with pharmaceutical industries, research organisations, medical regulatory bodies or as independent practitioners to develop, evaluate and market new medicines for the benefit of patients and the health of the community

# Pharmacokinetics

- Pharmacokinetics is currently defined as **the study of the time course of drug absorption, distribution, metabolism, and excretion.** Clinical pharmacokinetics is the application of pharmacokinetic principles to the safe and effective therapeutic management of drugs in an individual patient.



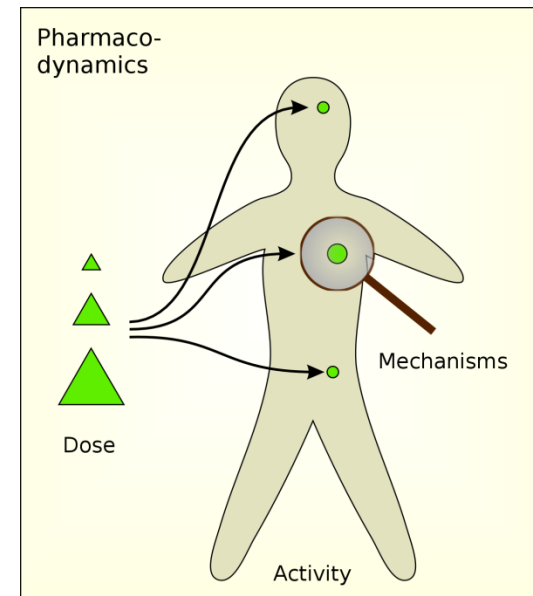
# Pharmacokinetics

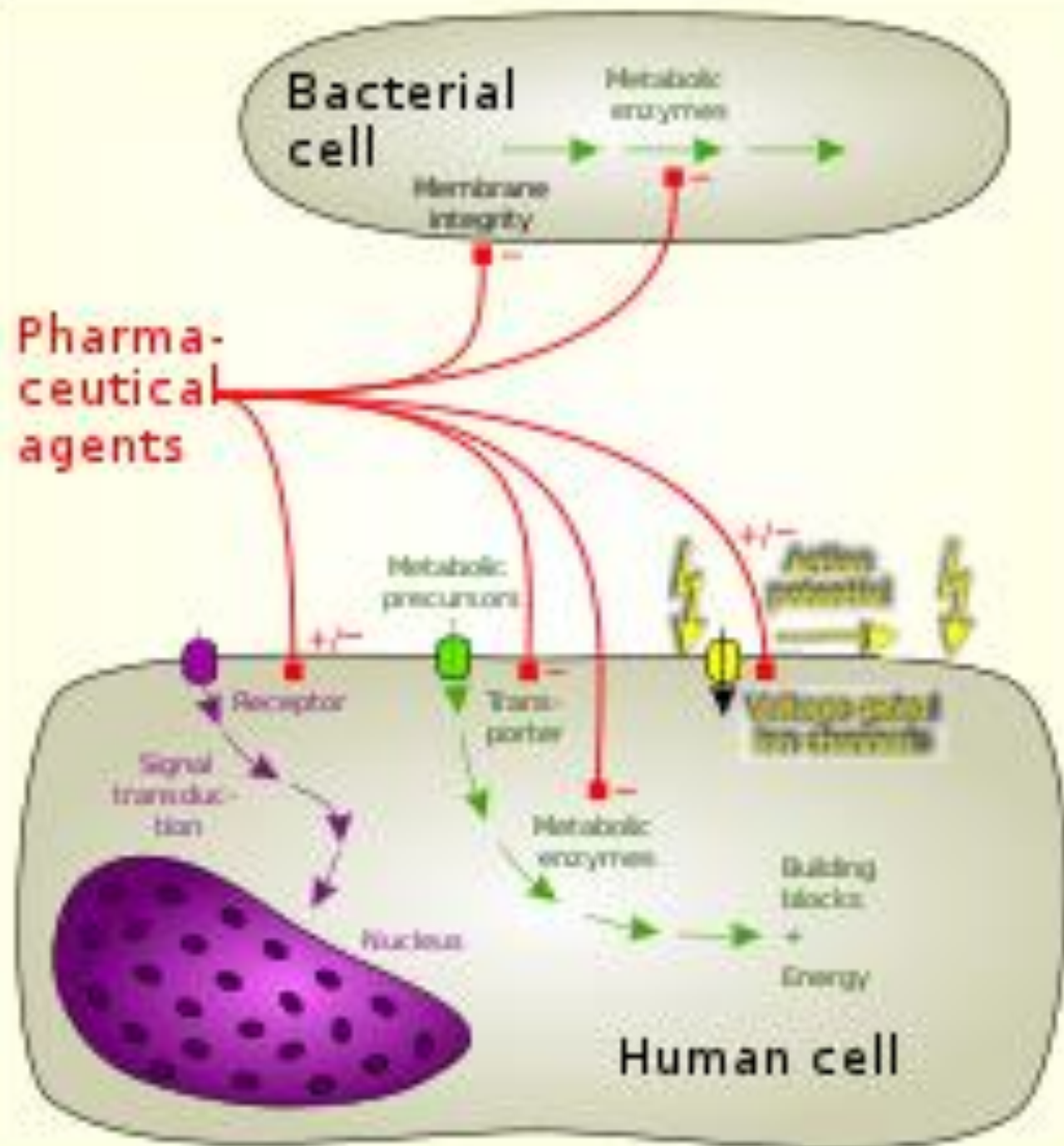


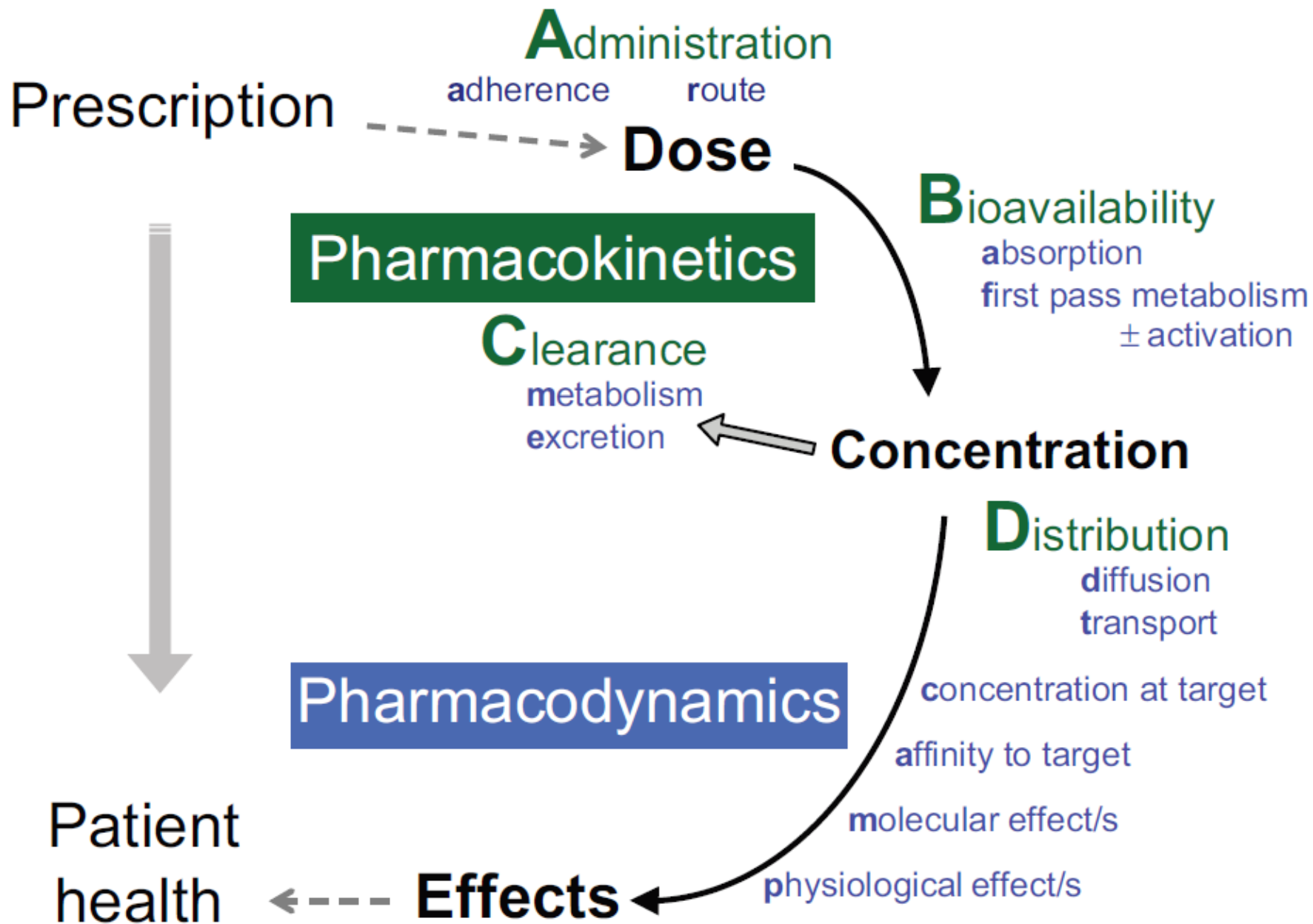


# Pharmacodynamics

- The branch of pharmacology concerned with the effects of drugs and the mechanism of their action.







**Thanks**