

**SNS COLLEGE OF PHARMACY  
AND HEALTH SCIENCES**

*Affiliated To The Tamil Nadu Dr. MGR Medical University,  
Chennai*

*Approved by Pharmacy Council of India, New Delhi.  
Coimbatore -641035*



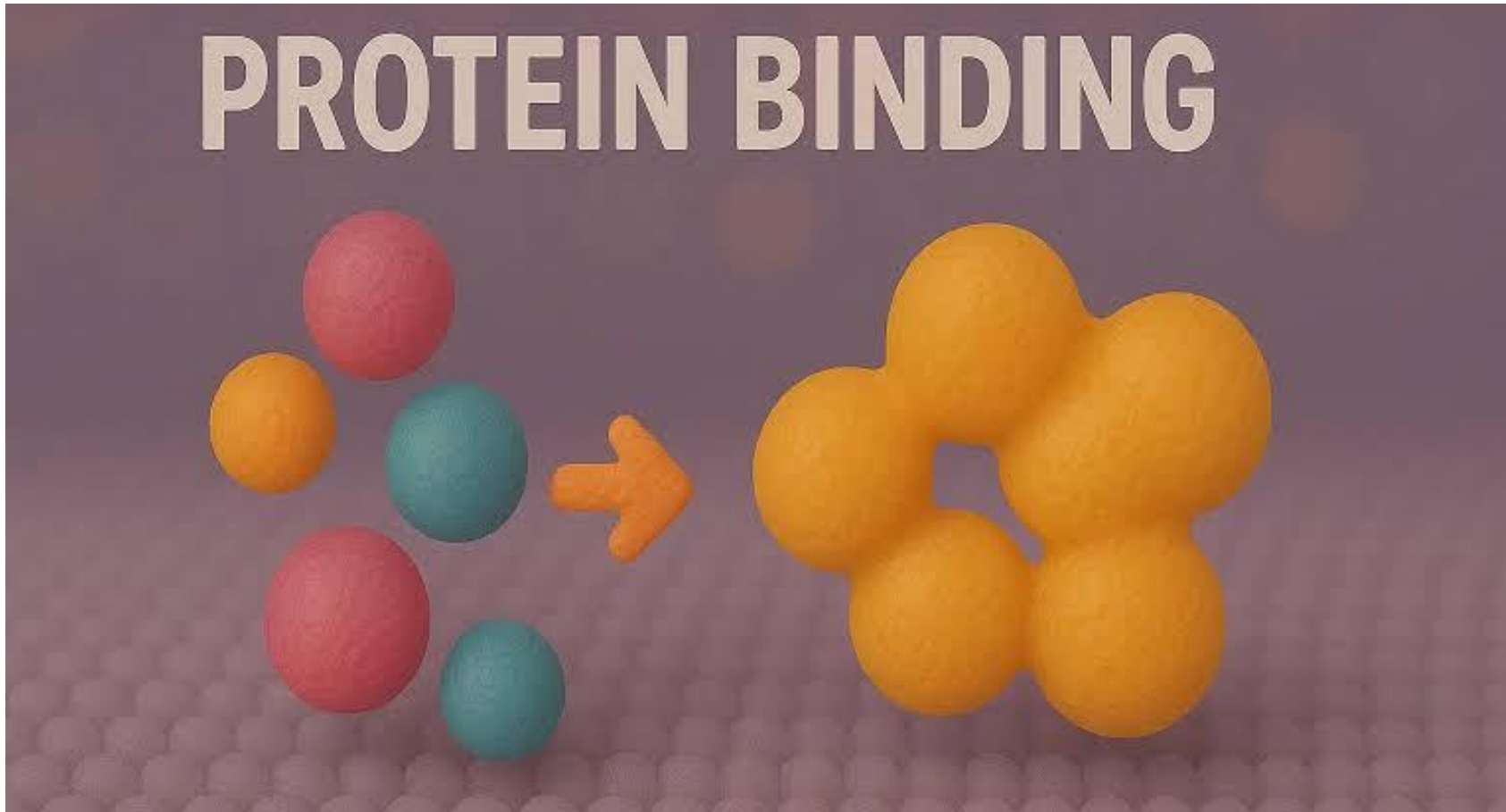
**COURSE NAME: BIOPHARMACEUTICS &  
PHARMACOKINETICS**

**III YEAR / II SEM**

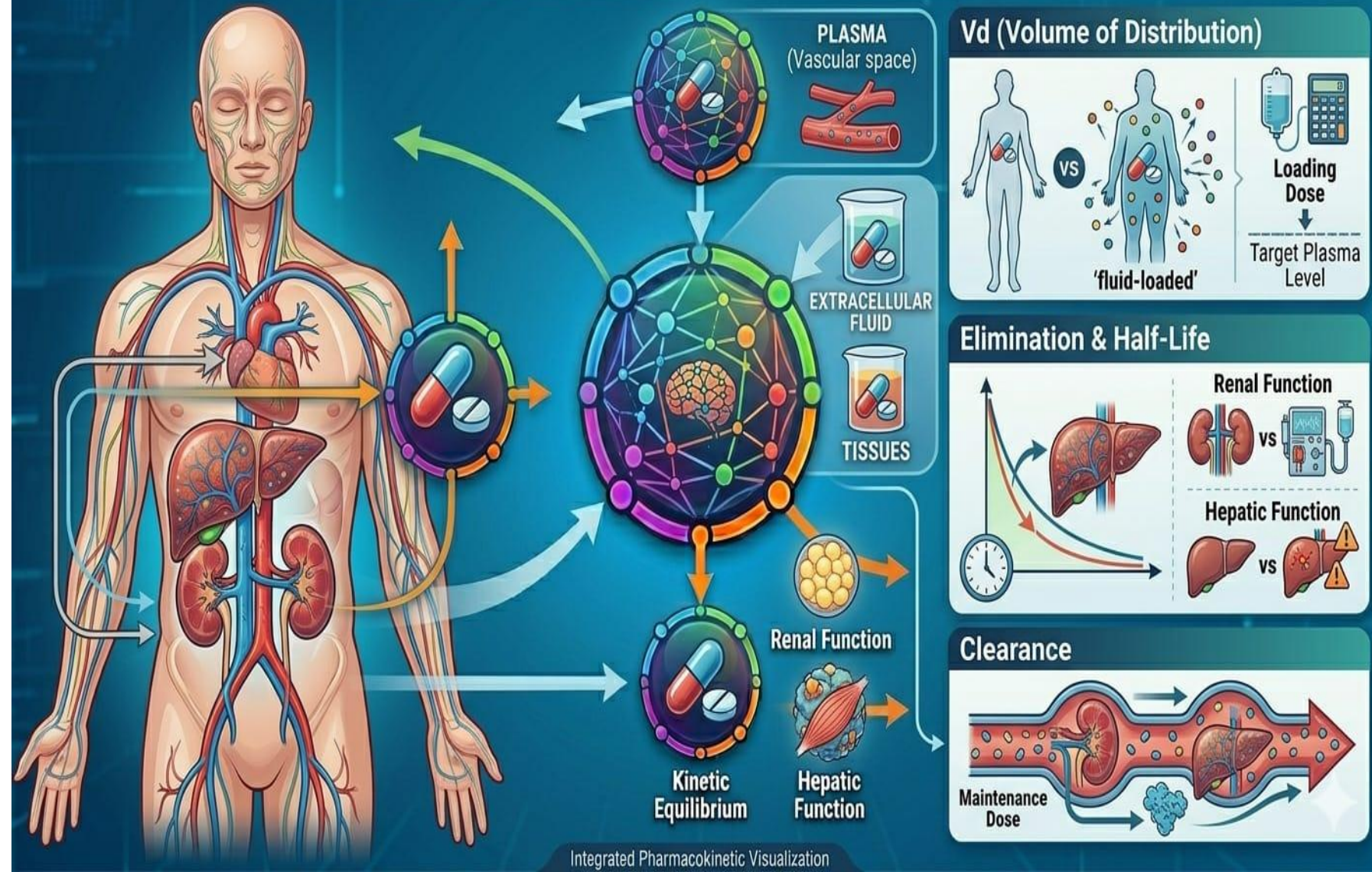
**TOPIC 1: ABSORPTION**

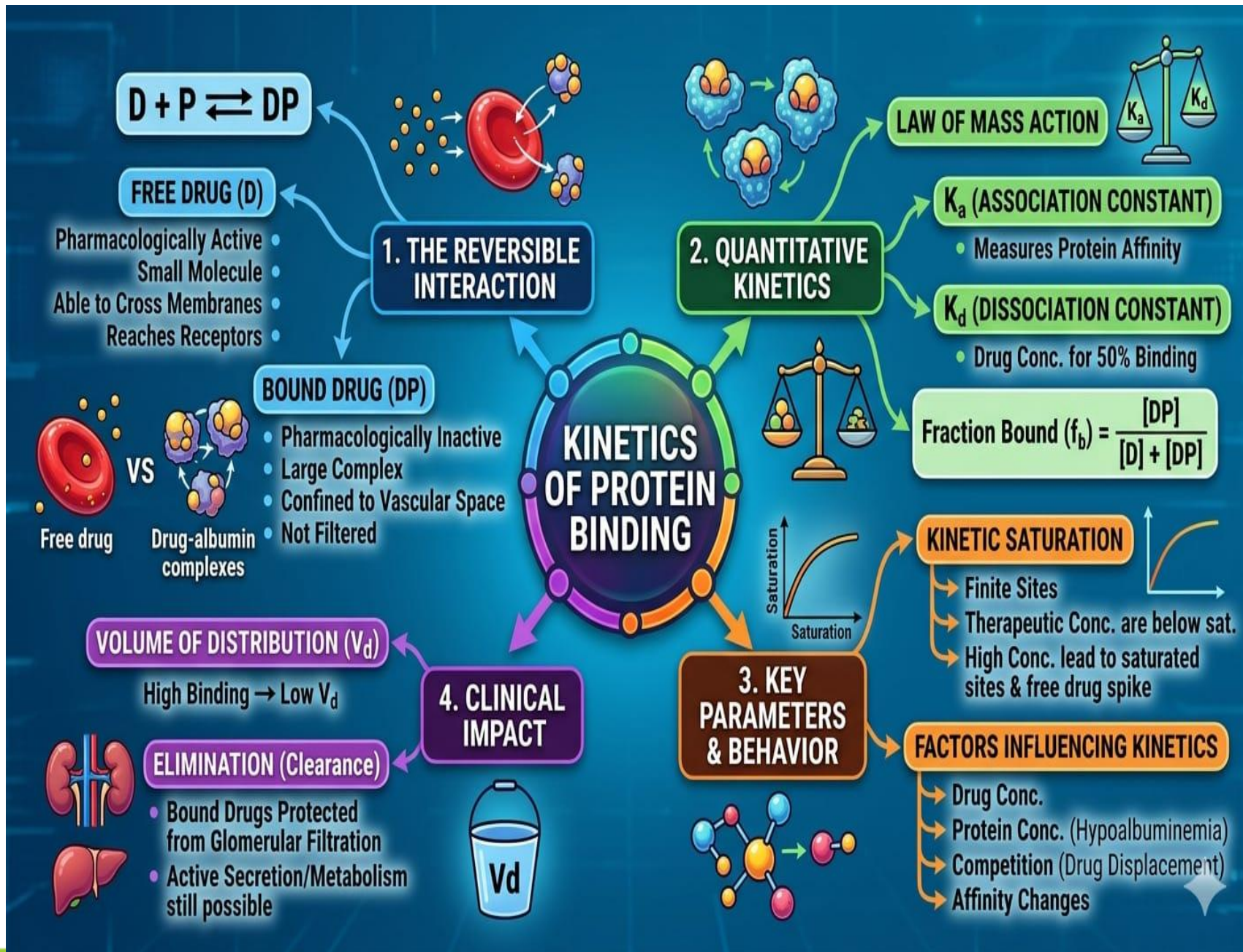
**SUB TOPIC: Protein binding**

# PROTEIN BINDING

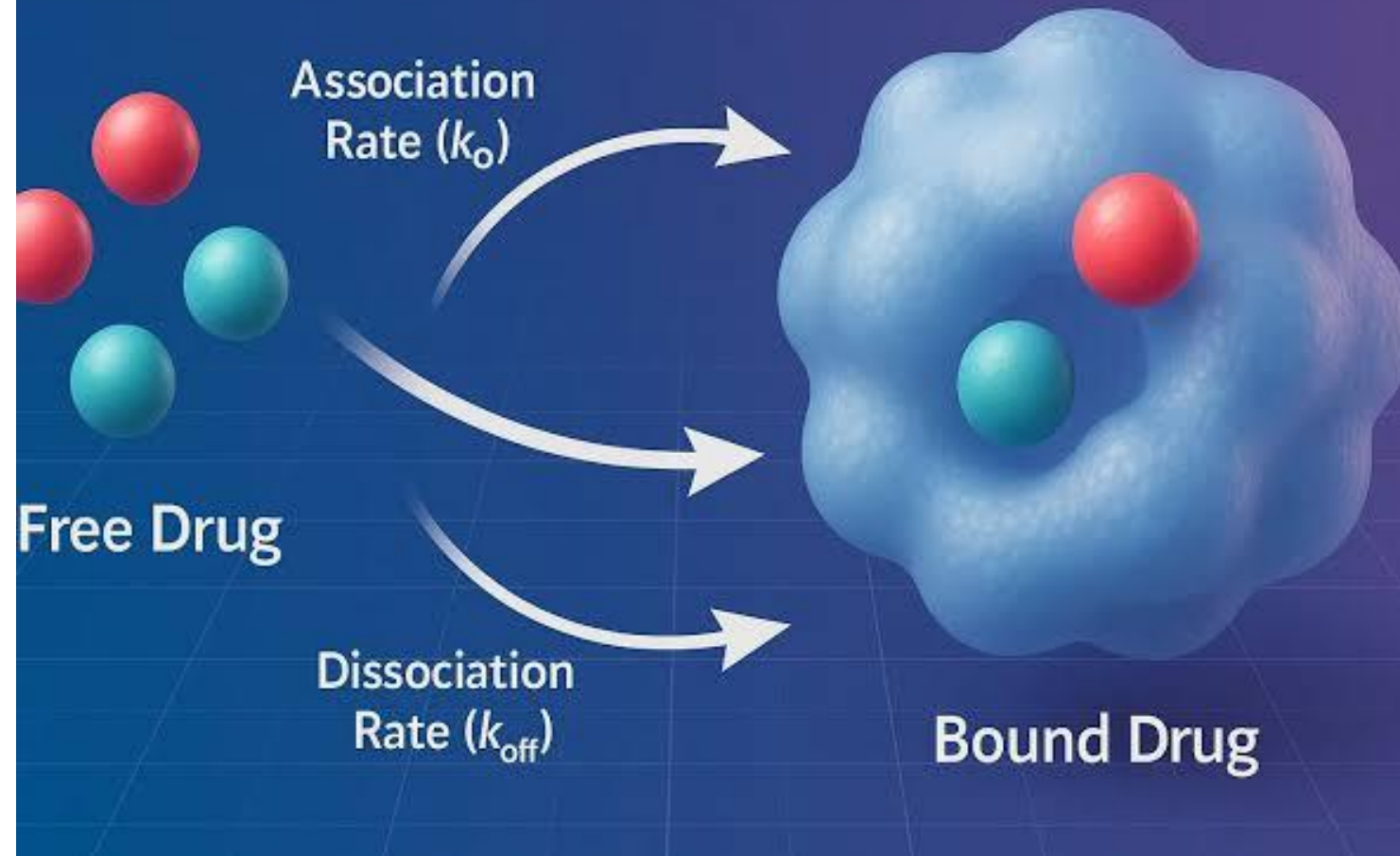


# CLINICAL IMPACT: Pharmacokinetic Consequences





# KINETICS OF PROTEIN BINDING





### FREE DRUG (D)

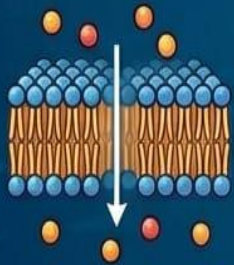
- Pharmacologically Active



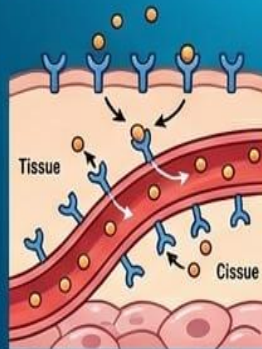
- Small Molecule



- Able to Cross Membranes

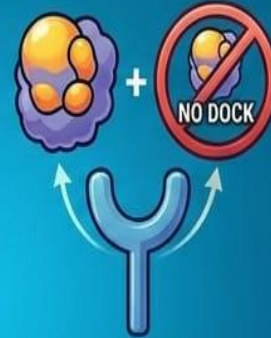


- Reaches Receptors



### BOUND DRUG (DP)

- Pharmacologically Inactive



- Large Complex



Drug-Albumin Complex

- Confined to Vascular Space to big to pass



- Not Filtered



BLOCKED



Glomerular Filtration

# FACTORS AFFECTING PROTEIN-DRUG BINDING



PH



COMPETITION



COMPETITION



TEMPERATURE



HYDROPHOBICITY

